ISPAH Congress 2026

CONGRESS PROCEEDINGS



11th International Society for Physical Activity and Health Congress in Merida, Mexico

PAHO Pan American Health Organization World Health Organization Americas Region

Instituto Nacional de Salud Pública

The University of Texas at Austin College of Education

Center for Research to Community Impact

TABLE OF CONTENTS



Welcome to the ISPAH Congress 3

Message from the ISPAH President 4

Message from PAHO 5

Message from our Local Hosts 6

Partners 7

Host City 8

Venue 9

Sustainability 10

Programme at a Glance 11

Organising Committee 15

Scientific Committee 16

Abstract Reviewers 17

Keynote Speakers 18

Abstract Book 22

WELCOME TO THE ISPAH CONGRESS 2026

Going global for local impact: Towards a comprehensive equity approach to physical activity and health

ISPAH is the leading global society promoting physical activity across the life course. The biennial Congress will bring together researchers, practitioners and policymakers to share knowledge and drive action.

The ISPAH Congress 2026 is taking place in Merida, Mexico, from 5–8 October 2026 at the Centro Internacional de Congresos de Yucatán. With physical activity high on the global health agenda, the Congress will explore innovative ways to reduce inequalities in participation and access.

Merida offers a strong local commitment to active living and aims to leverage global partnerships for lasting health impact. Thank you for joining us as we work together toward the global target of a 15% reduction in physical inactivity by 2030 and unlock the full potential of physical activity for healthier communities.

WELCOME

Message from the ISPAH President



On behalf of ISPAH, it is my great pleasure to welcome you to the ISPAH Congress 2026! 2026 will mark 20 years since the first ISPAH Congress held in Atlanta, in the United States. Over the past two decades, our global community has made remarkable progress in advancing physical activity and public health through research, policy, practice and advocacy.

Yet challenges remain and one of those challenges is the persistent inequities in physical activity participation. Addressing inequity is at the heart of ISPAH and we are especially proud to reaffirm this commitment and to host this milestone congress in Mexico, with the theme 'Going Global for Local Impact: Towards a Comprehensive Equity Approach to Physical Activity and Health'. As the largest global platform for physical activity, the ISPAH Congress 2026 will bring together the world's leading physical activity researchers, practitioners, policymakers and advocates, while celebrating the important contributions to our field from Latin America.

The ISPAH Congress 2026 will also include a social program that will offer opportunities to connect, be active and experience the local culture. Merida offers incredible opportunities for cycling, walking and running – Parque La Plancha is a highlight – and is known for its cuisine, with Mayan, Spanish and Caribbean influences.

We look forward to seeing you in Merida for the ISPAH Congress 2026 to exchange knowledge, connect with old and new colleagues and friends and to experience everything the city has to offer.



A/Prof. Sjaan Gomersall
President | International Society for Physical Activity and Health

WELCOME

Message from the Pan American Health Organization (PAHO)



On behalf of the Pan American Health Organization (PAHO), it is my great pleasure to welcome you to the ISPAH Congress 2026. PAHO is proud to co-sponsor this gathering with the International Society for Physical Activity and Health. We are especially pleased that, after twelve years, the Congress returns to Latin America, offering an opportunity to celebrate the Region's leadership, experience and innovation in advancing physical activity and health.

Physical inactivity remains one of the most pressing, and preventable, public health challenges in the Americas. In the Region, 80.7% of adolescents and 35.6% of adults do not meet WHO-recommended levels of physical activity, with wider gaps affecting women and girls. Rising screen time and limited access to safe places for play reduce opportunities for children to be active, while among older adults inactivity contributes to frailty and loss of autonomy. Its consequences include rising rates of overweight and obesity, cardiovascular disease, diabetes, poor mental health and cancer, alongside mounting costs for individuals, health systems and societies.

Promoting physical activity is a regional priority for PAHO. We support Member States through a systems-based approach that integrates physical activity into everyday life, extending beyond sport and recreation. This includes policies that promote active play, quality physical education and healthy school environments; cross-sector collaboration for active transport; and safe, accessible walking and cycling infrastructure, public spaces and urban planning. Through the Better Care for NCDs Initiative, PAHO is also helping transform the prevention and management of noncommunicable diseases in primary health care. We further assist countries in adopting WHO guidelines, strengthening surveillance, building the economic case for investment, and exchanging effective practices.

Turning global guidance into regional collaboration and country-specific action is essential to reach those who face the greatest barriers to being active. Through our partnership with ISPAH, PAHO is delighted to support a Congress that brings together researchers, practitioners, policymakers and advocates, and that showcases the contributions of Latin America to the global physical activity community.

Together, we can build a future in which everyone, everywhere, has equitable opportunities to be physically active as part of daily life.



Dr. Vanessa Garcia-Larsen
Pan American Health Organization

PAHO
Pan American Health Organization
World Health Organization
Americas Region

WELCOME

Message from the National Institute of Public Health of Mexico and The University of Texas at Austin



As local co-hosts for the ISPAH Congress 2026, the National Institute of Public Health of Mexico (INSP) and The University of Texas at Austin (UT Austin) are pleased to invite you to join us in the vibrant city of Merida, Yucatán, Mexico, from October 5–8, 2026, at the Yucatán International Congress Center.

INSP is one of the leading public health research institutions in Latin America and maintains active collaborations with UT Austin's Center for Research to Community Impact and the Department of Kinesiology and Health Education in the areas of physical activity, public health research and capacity building. Mexico and Texas share over 2,000 kilometres of border and deep historical and cultural ties, with 40% of Texas's population identifying as Latino or Hispanic—making collaboration between our regions both natural and vital in addressing the global challenge of physical inactivity.

We are proud to bring the ISPAH Congress back to Latin America for the first time since Rio in 2014—and to host it in a Spanish-speaking country for the first time. This milestone event will highlight the region's growing community of researchers and practitioners, amplify Latin American perspectives and strengthen regional and international partnerships.

Together, we will celebrate transformative research, inspire real-world impact and continue building a world where everyone has the opportunity to move, thrive and reach their full potential. We look forward to welcoming you to Mexico in 2026!



Instituto Nacional de Salud Pública

Dr. Alejandra Jáuregui
National Institute of Public Health, Mexico



The University of Texas at Austin College of Education

Center for Research to Community Impact

Dr. Deborah Salvo
The University of Texas at Austin, USA

PARTNERS

We would like to acknowledge the support of our partners. Thank you for your support of the ISPAH Congress 2026

CO-SPONSOR

PAHO
Pan American Health Organization
World Health Organization
Americas Region

HOST INSTITUTIONS

Instituto Nacional de Salud Pública

The University of Texas at Austin
College of Education
Center for Research to Community Impact

PARTNERS

Center for Research to Community Impact

JPAH

SLIAFS
LATIN AMERICAN SOCIETY FOR PHYSICAL ACTIVITY AND HEALTH RESEARCH

Master of Public Health
Applied Health Sciences

SENS

UADY
UNIVERSIDAD AUTÓNOMA DE YUCATÁN

VISIT YUCATAN

YUCATÁN
FIDEICOMISO PÚBLICO PARA EL DESARROLLO DEL TURISMO DE REUNIONES EN YUCATÁN

RENACIMIENTO MAYA
YUCATÁN
GOBIERNO DEL ESTADO | 2024 - 2030
IDEY
INSTITUTO DEL DEPORTE DEL ESTADO DE YUCATÁN

Additionally, specific support received from some entities allowed for key highlights of the ISPAH Congress 2026 to take place, including:

- The first-ever fun run/walk, at Parque La Plancha, made possible thanks to in-kind and logistical support by **Instituto del Deporte de Yucatan (IDEY).**
- The pre-congress Early Career Network (ECN) workshop, made possible thanks to in-kind and facilities support by the **Universidad Autonoma de Yucatan (UADY).**
- Our Congress Welcome Reception and Dinner were made possible thanks to support from **Fideicomiso para el Desarrollo del Turismo de Reuniones en Yucatán (FIDETURE)**
- Live interpretation (translation) services for all Congress programming in the Keynote Hall, made possible thanks to financial support by the **Center for Research to Community Impact (CRCI)** and the **Department of Kinesiology and Health Education (KHE) at the University of Texas at Austin,** and the **Latin American Society for Physical Activity and Health Research (SLIAFS).**

HOST CITY

Merida, the capital of Yucatán, Mexico, is a vibrant city known for its rich cultural heritage, colonial architecture and commitment to public health.

As a regional leader in promoting active lifestyles, Merida offers an inspiring backdrop for the ISPAH Congress 2026.

Delegates will enjoy a safe, walkable city with access to local cuisine, historical landmarks and a welcoming community.

Visitors can explore Merida's eco-tourism offerings, including chemical-free pools, organic vegan dining, and immersive cultural experiences that support local communities and preserve the region's natural beauty. Initiatives like The Green Maya Project offer curated, low-impact travel experiences that celebrate Mayan heritage and environmental responsibility.



VENUE

The Congress will be held at the Yucatán International Congress Center (CIC Yucatán), a modern facility equipped to host international events.

Located in the heart of Merida, the venue offers spacious exhibition halls, multiple conference rooms and advanced AV capabilities.

The CIC Yucatán has its own rare natural feature —“El Cenote”, a natural sinkhole that connects to an ancient underground river.

Beyond its architecture, CIC Yucatán balances technology and tradition. It includes halls for the scientific programme, foyers, terraces for social events and an outdoor plaza - offering versatile settings for exhibitions, networking and celebration. Conveniently located in the city centre, it’s near hotels and hospitality options.



SUSTAINABILITY



Sustainability is central to the ISPAH Congress 2026, reflecting Merida's strong commitment to environmental stewardship and active living. From the city's green initiatives to our eco-certified venue, we're proud to support a healthier planet while promoting physical activity.

LEED Platinum Venue

- The Yucatán International Congress Center (CIC Yucatán) is the first convention center in Latin America to achieve LEED Platinum certification. It features:
  - 15% renewable energy use, including solar panels
  - Smart lighting and energy systems reducing consumption by 35%
  - Water-saving fixtures and rainwater reuse
  - Native landscaping to reduce heat and support biodiversity
  - A preserved natural cenote integrated into the venue

Merida leads in sustainable urban development, with over 55% of municipal energy from clean sources and 91 public buildings powered by solar.

PROGRAMME

Schedule for the week at a glance



MONDAY

5 OCTOBER

08:00-10:00	**ISPAH Fun 5K Run/Walk** Parque La Plancha
13:00-16:00	**Early Career Network (ECN) Workshop** UADY Centro
15:00-19:00	**Registration Opens** Room 24B
19:00-21:00	**Welcome Reception** Room 24B

TUESDAY
6 OCTOBER

09:00-10:30 — **Congress Welcome & Harold W. (Bill) Kohl III Opening Keynote**

"Beyond Steps and Calories: Reimagining Physical Activity for Health, Equity, and Sustainable Futures"

Associate Professor Deborah Salvo

Rooms 22 & 23

10:30-10:50 — **Coffee Break**

Foyer Sur

10:50-11:50 — **Parallel Symposia 1**

ISPAH Equity Panel: Advancing Physical Activity Equity: A critical dialogue on who gets to be active - and why	**Physical activity engagement among women in Mexico and the United States: past, present, and future**	**GoPA! and GoPE! Country Cards: development, dissemination, and lessons learned**	**Are Whole-School Approaches or Targeted PE Interventions More Effective for Increasing Physical Activity?**
Rooms 22 & 23	Room 24B	Room 25A	Room 25B

11:50-13:30 — **Lunch Break**

13:30-15:20 — **Parallel Long Orals**

Governance, policy, and systems innovation for active societies	**Advancing active living through environmental and urban design**	**Epidemiology and evidence of physical activity in populations**	**From inequity to inclusion: population-specific and equity approaches**
Rooms 22 & 23	Room 24B	Room 25A	Room 25B

15:20-16:20 — **Poster Session 1**

Room 21

16:20-17:20 — **Parallel Symposia 2**

Prospective mortality results from the ProPASS longitudinal data resource	**Integrating JEDI and knowledge translation in physical activity surveillance**	**The next decade of physical activity science: Strategic horizons for JPAH**	**Physical Activity for People With Disabilities: Furthering Equitable Approaches to GAPPA, Together.**
Rooms 22 & 23	Room 24B	Room 25A	Room 25B

WEDNESDAY
7 OCTOBER

09:00-10:00 — **Keynote**
"Physical activity policy research: a love/hate relationship"
Professor Catherine Woods
Rooms 22 & 23

10:00-11:00 — **Poster Session 2**
Room 21

11:00-12:30 — **Parallel Short Orals**

Advances in measuring physical activity across contexts and populations	Unlocking the drivers of physical activity	Physical activity in children and youth: evidence, interventions and outcomes	Shaping physical activity through the built and natural environment
Rooms 22 & 23	Room 24B	Room 25A	Room 25B

12:30-13:50 — **Lunch Break**

13:30-14:30 — **Annual General Meeting**
Rooms 22 & 23

14:30-16:20 — **Parallel Long Orals**

Moving Together - Highlighting Top Latin American Science (Short oral session)	Tracking movement: methods, metrics and surveillance	From research to reality: implementing behavior change solutions	Building active futures: children, youth, families and early life movement
Rooms 22 & 23	Room 24B	Room 25A	Room 25B

16:20-16:30 — **Coffee Break**
Foyer Sur

16:30-17:30 — **Parallel Symposia 3**

Smoke and mirrors: perspectives on the commercial determinants of physical activity and sport	'What is in a name?' Examining terminology for discussing the 24-hour day	From Complexity to Regional Action: Co-Creating a Model for Youth Physical Activity in Latin America	Tackling grand challenges in physical activity and health: Launch of the inaugural ISPAH-JPAH special issue
Rooms 22 & 23	Room 24B	Room 25A	Room 25B

19:15-21:30 — **Congress Dinner**
Hyatt Regency Merida

THURSDAY
8 OCTOBER

09:00-10:00 — **Keynote**

"The Global Colonization of Physical Activity and Health"
Associate Professor Jennifer D. Roberts

Rooms 22 & 23

10:00-11:00 — **Poster Session 3**

Room 21

11:00-12:00 — **Parallel Symposia 4**

Rebalancing Power in International Physical Activity Research: An Equity-Centred Conversation Across Mexico, Canada, and US	PAHO Symposium: From Evidence to Action: Scaling Physical Activity Policies and Programmes in the Americas	Global Innovations for Inclusive Active Ageing: Scalable Strategies Across Diverse Communities	Our Story of Movement: A Call to Advance Physical Activity Research, Policy and Practice
Rooms 22 & 23	Room 24B	Room 25A	Room 25B

12:00-13:40 — **Lunch Break**

13:40-14:40 — **Parallel Short Orals**

Advancing PA policy, practice and public health	Device-based PA assessment: validity, patterns and inequalities	Healthcare-based physical activity interventions	New approaches to supporting active living across the life course
Rooms 22 & 23	Room 24B	Room 25A	Room 25B

14:40-15:00 — **Break**

15:00-17:00 — **Keynote**

"Physical Activity and Population Health - What have we learnt from 25 years of device-measured physical activity?"
Professor Ulf Ekelund

Fellows, Awards and Closing Ceremony

Rooms 22 & 23

ORGANISING COMMITTEE

Co-Chairs



Sjaan Gomersall

President of ISPAH
Associate Professor, The University of Queensland, Australia



Alejandra Jáuregui

Local Host
National Institute of Public Health, Mexico

Committee members



Deborah Salvo

Local Host
President-Elect of ISPAH
Associate Professor at The University of Texas at Austin, USA



Case Garza

Communications Committee Representative
PhD Student, The University of Texas at Austin, USA



Julissa Ortiz Brunel

Early Career Network PAHO Representative and Secretariat
PhD candidate, The National Institute of Public Health (INSP)



George Thomas

IT Committee Representative
Research Fellow, The University of Queensland, Australia



Jessica Bourne

Climate Committee Representative
Research Fellow at the University of British Columbia



Humberto Vázquez

Professional Conference Organizer (PCO) for ISPAH Congress 2026



Isaac Brito

PCO Member



Cinthya García

PCO Member



Teresa “Tere” Tellez Allende

National Institute of Public Health, Mexico

SCIENTIFIC COMMITTEE

Co-Chairs



Deborah Salvo

Local Host
President-Elect of ISPAH
Associate Professor at The University of Texas at Austin, USA



Pedro Hallal

ISPAH Fellow
Professor, University of Illinois, Champaign/Urbana, USA

Committee members



Sjaan Gomersall

President of ISPAH
Associate Professor, The University of Queensland, Australia



Alejandra Jáuregui

Local Host
National Institute of Public Health, Mexico



Michael Pratt

Professor, University of California San Diego, USA



Diana Morales

Secretariat and ECR/ Communications Committee Representative
PhD Candidate, University of Illinois Urbana Champaign, USA



Alan G Knuth

Associate Professor at Federal University of Rio Grande, Brazil



Philippe Gradidge

Professor at the University of the Witwatersrand, South Africa



Masamitsu Kamada

Associate Professor at the University of Tokyo, Japan



Lucie Levesque

Professor at Queens University, Canada



Adrian Bauman

Professor at the University of Sydney, Australia

ABSTRACT REVIEWERS



Adewale Oyeyemi
Adrian Bauman
Adriana Angarita-Fonseca
Alan Knuth
Alejandra Jáuregui
Alejandra Martinez
Allie Welsh
Aly Hassan
Ana Barbosa
Ana Pinto
Andrea Ramirez-Varela
Andreia Pizarro
Andres Vivas
Andressa Crystine da Silva Sobrinho
Anne Grunseit
Antonina Tcymbal
Ashleigh Johnson
Átila Trape
Aunty Nyima Fofana
Aymen El Masri
Binh Nguyen
Bruno Ferreira
Bushra Ali
Case Garza
Cati Azambuja
Cecilia Isabel Oviedo-Solís
Charlotte Verdot
Ciro Romelio Rodriguez Añez
Claudia Magaly Espinosa-Mendez
Cristiane Galvão da Costa
Cristina Enríquez
Dania Qutishat
Daniel Vicentini de Oliveira
Daniela Lopes dos Santos
Deborah Salvo
Deirdre Harrington
Delmark Aseron
Diana Morales
Diana Rodrigues
Diana Gabriela Camarillo Elizalde
Eduardo Medeiros
Eliane Cristina de Andrade Gonçalves
Elina Engberg
Elizabeth Lorenzo
Elroy Aguiar
Elysa Ioannou
Emer Barrett
Eaiane Cristina Menezes
Esther Carter
Esther Walker
Eugen Resendiz
Eun-Young Lee
Gemma Ryde
Greg Heath
Hanna Nalecz
Heather Waddell
Jade Kubler
Jan Seghers
Jarmila Pekarcikova
Jasper Schipperijn
Jean Buckler
Jo Fiore
John Guiller Realin
Jonathan Cagas
Jorge Cervantes Sanabria
Jucileia Bezerra
Julia Kathrin Baumgart
Justin Guagliano
Kathia Quevedo
Kelly Morgan
Ken'ichi Egawa
Klaus Gebel
Kumudu Kariyawasam
Kwok Ng
Larkin Strong
Laura Eliabeth Castro Jimenez
Laura Patricia Arellano Gómez
Laurent Malisoux
Lay Khoon Lau
Liliana Aracely Enriquez del Castillo
Lino Francisco Jacobo Gomez Chavez
Lucie Levesque
Luiza Ricardo
Marcelo Cano-Cappellacci
Margaret Schneider
Marieke De Craemer
Marilyn Wende
Martinique Sparks
Mary Wanjau
Mary-Grace Kang
Masamitsu Kamada
Mattias Folkesson
Melissa deJonge
Mengyun Luo
Michael Pratt
Migle Baceviciene
Mohammad Kadir
Natan Feter
Nayeli Macías
Nayeli Macías
Oscar Galván-Valencia
Oyun Chimeddamba
Paola Cortes Almanzar
Paul Estabrooks
Pedro Hallal
Philip Scruggs
Philippe Gradidge
Prabuddhika Kandegedara
Prateek Srivastav
Radhika Jadhav
Rafael Manjarrez-Montes-de-Oca
Rasa Jankauskiene
Rebeca Monroy-Torres
Richard Larouche
Rona MacNiven
Rosalinda Sánchez Arenas
Ruth Mabry
Sabina López Toledo
Samira Rostami
Samuel Dumith
Sara Le
Sarah Morton
Saulo Gil
Sherihane Bensemmane
Shigeru Inoue
Siao Hui Toh
Sjaan Gomersall
Sophie Antoine-Jonville
Stephanie Prince
Sumantla Varman
Susan Paudel
Sven Messing
Sylvia Titze
Tamrin Veldsman
Tao Mei
Taru Manyanga
Teresita Portugalete - Nolledo
Thatiane Ostolin
Tracy Kolbe-Alexander
Valquíria Lima
Wagner De campos
William Boyer
Xiuye Xie
Yang Bai
YooJung Rhee
Yuzi Zhange
Zhanjia Zhang
Zoe Marshall

KEYNOTE SPEAKERS



Associate Professor Deborah Salvo



“Beyond Steps and Calories: Reimagining Physical Activity for Health, Equity, and Sustainable Futures”

6 October | 09:00–10:30

Dr. Salvo works at the intersection of physical activity and spatial epidemiology, with profound commitment to documenting, understanding, and resolving disparities in access to health-promoting and environmentally sustainable urban environments for all. She specializes in conducting studies assessing and leveraging the role of place (physical, social, and policy context) on physical activity and other health-related behaviors, with the goal of promoting physical activity and health equity. Dr. Salvo has a special interest in Latino/Latin American populations, both in United States and across Latin America.

Dr. Salvo’s work also strongly focuses on building research capacity for physical activity and public health in low- and middle-income countries. She founded the Latin American Society of Physical Activity and Health Research (SLIAFS) in 2021, co-founded and co-directed the Global Observatory of Healthy and Sustainable Cities in 2021, and serves as the President-Elect of the International Society of Physical Activity and Health (ISPAH) for the 2024-2026 term.

KEYNOTE SPEAKERS



Professor Catherine Woods

"Physical activity policy research: A love/hate relationship"

7 October | 09:00–10:00

Catherine B. Woods is a full professor and Director of the Physical Activity for Health Research Centre (PAfH) at the Health Research Institute, University of Limerick (UL), Ireland. PAfH's mission is to conduct excellent research across its six thematic areas - measurement, biomedicine, interventions and policy, exercise as medicine and active mobility (www.ul.ie/ehs/pafh). PAfH's Principal Investigators, research staff and postgraduates work collectively to build capacity, to enhance PAfH's international reputation for research excellence and in collaboration with other researchers, policymakers and practitioners we strive to deliver real world impact.

Catherine's expertise is in physical activity (PA) policy, intervention development and effective implementation. She has presented her work through peer-reviewed publications, conference presentations and has accrued competitively awarded €16 million research funding from (inter)national grant agencies. As Deputy Chair of the Policy Evaluation Network (www.jpi-pen.eu), she co-led a consortium of 28 research institutes across Europe to find systematic ways of evaluating and monitoring policy impact on physical activity, sedentary behaviour and food. As Chair of the ERA4Health (EU funded) IMPAQT study, she continues this research across six EU countries (www.ul.ie/research/impaqt).

Catherine has advised the WHO HEPA Physical Activity Focal Points in Europe. With Colin O'Hehir from the Department of Health, Ireland, she co-Chairs the Irish Physical Activity Collaboration (www.i-parc.ie), which is instrumental in bringing researchers, policymakers and practitioners together to use a cross-sectoral approaches to address the inactivity pandemic across the island of Ireland. In 2025, as Chair of Healthy UL, a campus-wide initiative to promote health and wellbeing for UL staff, students and wider community she led on the development and publication of the 'Limerick Framework for Action: Advancing the Global Health Promoting Campuses Agenda' (Healthy UL | University of Limerick).

KEYNOTE SPEAKERS

Associate Professor Jennifer D. Roberts

"The Global Colonization of Physical Activity and Health"

8 October | 09:00–10:00



Jennifer D. Roberts is an Associate Professor in the Department of Kinesiology, School of Public Health at the University of Maryland, College Park (UMD). She is Chair of the Nature and Health Alliance, an interdisciplinary network advancing awareness of the health benefits of nature engagement. Roberts is Founder and Director of the Public Health Outcomes and Effects of the Built Environment (PHOEBE) Laboratory and Co-Founder and Co-Director of NatureRx@UMD, an initiative that integrates campus greenspaces with recognition of the ancestral lands of the Piscataway People and the historical legacies of slavery at UMD.

Roberts is an "active living, health equity, and truth-telling" scholar whose work examines how built and natural environments, and the inequities embedded within them, shape physical activity, health, and wellbeing. Her research uses spatial analysis and geographic information systems to investigate social and environmental drivers of active living, including projects such as the Built Environment and Active Play (BEAP) and Physical Environment and Active Transportation (PEAT) studies.

She is the Executive Founding Director of the Wekesa Earth Center, a multidisciplinary initiative promoting equity, reconciliation, and healing in nature. Roberts is a former JPB Environmental Health Fellow at Harvard T.H. Chan School of Public Health and currently serves as Consortium Site Principal Investigator on a $3.4 million National Institute of Nursing Research–funded study evaluating the health impacts of the 11th Street Bridge Park project in Washington, DC.

KEYNOTE SPEAKERS

Professor Ulf Ekelund

"Physical Activity and Population Health - What have we learnt from 25 years of device-measured physical activity?"



8 October | 15:00–17:00

Ulf Ekelund is Professor in Sports Medicine with a special focus on Physical Activity and Population Health at the Norwegian School of Sport Sciences. He is co-directing the Oslo Research Centre for Physical Activity and Population Health (ORC-PAPH) and directing a WHO collaborating Centre on physical activity and population health. Ekelund holds a secondary position as senior researcher at the Norwegian Public Health Institute. Before moving to the Norwegian School of Sport Sciences in 2012, Ekelund lead a research program in physical activity epidemiology at the MRC Epidemiology Unit, University of Cambridge, UK.

Ekelund has led work packages in several EU funded research projects such as the InterAct and DEDIPAC projects. He currently serves as work package leader on an EU funded Horizon 2023 project on obesity prevention (OBCT). Other major international projects include the 2012, 2016, and 2021 Lancet series on physical activity and global health and The International Children's Accelerometer Database (ICAD). Ekelund is currently leading an International Adult Accelerometer consortium examining the detailed dose-response associations between device-measured physical activity and sedentary time with health outcomes.

Ekelund served on the 2020 WHO expert committee for developing new global recommendations for physical activity and sedentary behaviours for public health. He is currently member of WHO expert group on physical activity surveillance in adults and in youth. Ekelund has published more than 500 peer-reviewed papers including landmark papers in The Lancet, The BMJ and JAMA. He has been listed as highly cited researcher by Clarivate Analytics (Web of Science) seven times during the last eight years.

ABSTRACT BOOK



Abstract Book Table of Contents

Symposia

6 Oct

Parallel Symposia 1

ISPAH Equity Panel: Advancing Physical Activity Equity: A Critical Dialogue on Who Gets to Be Active – and Why 48
Gomersall, S., Ross, M., Roberts, J., McGuire-Adams, T.

Physical activity engagement among women in Mexico and the United States: past, present, and future 49
Aguinaga, S., Jáuregui, A., Munoz, M., Corral, C., Morales, D.

GoPA! Country Cards: development, dissemination, and lessons learned 50
Pratt, M., Mejía-Grueso, J., Kolbe-Alexander, T., Siefken, K., Pratt, M., Hallal, P.C., Bauman, A., Amagasa, S., Inoue, S., Ramirez Varela, A.

Are Whole-School Approaches or Targeted PE Interventions More Effective for Increasing Physical Activity? 51
Hunt, E., Morgan, K., ng, K., Pfledderer, C.

Parallel Symposia 2

Prospective mortality results from the ProPASS longitudinal data resource 53
Ahmadi, M., Holtermann, A., Hamer, M., Stamatakis, E., Mitchell, J., Bull, F.

Integrating JEDI and knowledge translation in physical activity surveillance 54
Larouche, R., Carr, S., Jáuregui, A., Vanderloo, L., Brazo-Sayavera, J.

The Next Decade of Physical Activity Science: Strategic Horizons for JPAH 55
Reis, R., Ding Ding, M., Mielke, G.

Physical Activity for People With Disabilities: Furthering Equitable Approaches to GAPPA, Together. 56
Sherrington, C., West, K., Tiedemann, A., Purcell, K.

7 Oct

Parallel Symposia 3

Smoke and mirrors: perspectives on the commercial determinants of physical activity and sport 57
Bauman, A., Bauman, A., Kolbe-Alexander, T., Pedersen, C.B., Lambert, E.V.

'What is in a name?' Examining terminology for discussing the 24-hour day 58
Falck, R., Schipperijn, J., Ding, M., Gradidge, P., Tornberg, Å., Gomersall, S.

From Complexity to Regional Action: Co-Creating a Model for Youth Physical Activity in Latin America 59
Ochoa, A., Jáuregui, A., Ochoa Avilés, C., García, I., Molina, M.J.

Tackling grand challenges in physical activity and health: Launch of the inaugural ISPAH-JPAH special issue 60
Hallal, P., Stamatakis, E., Mitchell, J., Firth, J., Hallal, P., Gradidge, P.

8 Oct

Parallel Symposia 4

Rebalancing Power in International Physical Activity Research: An Equity-Centred Conversation Across Mexico, Canada, and US 62
Jáuregui, A., McGuire-Adams, T., Salvo, D., Jáuregui, E., Argumedo, G., Lévesque, L.

PAHO Symposium: From Evidence to Action: Scaling Physical Activity Policies and Programmes in the Americas 63
Macholz, A., Garcia-Larsen, V., Vejar Renteria, L.S.

Global Innovations for Inclusive Active Ageing: Scalable Strategies Across Diverse Communities 64
Stathi, A., Tiedemann, A., De la Vega-Taboada, E., King, A., Lambert, V.

Our Story of Movement: A Provocative Call to Advance Physical Activity Research, Policy and Practice 65
Piggin, J., Matias, T., Karloh, M., Hawes, O., Flemons, M.

Long Orals

6 Oct

Governance, policy, and systems innovation for active societies

A Content Analysis of Physical Activity and Priority Climate Action Plans across U.S. States 67
Franco Silva, M., Gierbolini-Rivera, R., Wang, Y., de Paula da Silva, A.A., Eyler, A., Salvo, D., Siqueira Reis, R.

Policy and governance lessons for physical activity promotion in The Americas 68
Mejía-Grueso, J., Pratt, M., Spence, J.C., Bauman, A., Hallal, P.C., Ramírez Varela, A.

Conceptualizing Active Aging through an Indigenous Cultural Framework: An analysis of the Indigenous Peoples Survey 69
Lee, N., Dogra, S., Bouchard, D.

Enabling and Constraining Factors for Park Access Policy Adoption in U.S. Cities 70
Hughey, M., Zeidler, H., Stewart, K., Leake, L., Yip, J., Friedmann, V.

Using IMPAQTs list of Best Practice Exemplars to benchmark implementation of public physical activity policies 71
Garcia Bengoechea, E., Volf, K., Jankauskienė, R., Kustra, W., Barrero, A., Van Hoye, A., Bacevičienė, M., Gobis, A., Wachnicka, J., Żukowska, J., Heuvelman, F., Den Braver, N.R., Birkholz, L., Messing, S., Laszlo, P., Sandu, P., Woods, C.

Ambition versus action: Are active transport and health delivered through climate action plans? 72
Sallis, J., Carson, J., Kedar, V., Heaney, A., Sallis, J., Adlakha, D.

Building blocks of equity in physical activity policy: Learnings from six EU member states 73
Messing, S., Birkholz, L., Tcymbal, A., Heuvelman, F., den Braver, N., Abu-Omar, K., Volf, K., Sandu, P., Peter, L., Zukowska, J., Wachnicka, J., Jankauskienė, R., Bacevičienė, M.

National Physical Activity Surveillance Informing Place-Based Public Investment 74
Mann, S., Bernstein, E.

Advancing active living through environmental and urban design

"MoveScape": Informing Active Landscape Planning to Improve Physical Activity and Well-Being 76
Hawes, O.

Commuting and Leisure-time Physical Activity in the city of São Paulo: An Intersectional Analysis. 77
Stefano Goulardins, G., Rodrigues Curi Hallal, P., Pignatti Teixeira, I., Mitie Onita, B., Dias Santana, D., Antonio Florindo, A.

Children's Use of Public Open Spaces and Inclusion in Planning for Physical Activity in Low-Income 78
Tercero-Gómez, F., Hernández-Alcaraz, C., Jáuregui, A., Salvo, D.

Adapting 1000 Cities Challenge methods for evaluating active living policies in United States cities 79
Johnson, A., Johnson, A., Carson, J., Roke, M., Crist, K.

Longitudinal relationship between home and neighbourhood physical environment typologies and children's movement behaviours 80
Zhao, M.X., Christian, H., Budgeon, C., Trost, S., Schipperijn, J., Murray, K., Boruff, B.

Happiness Centers in Bogotá as Well-being Environments: Lessons from a Living Urban Laboratory 81
Quiroga Cruz, A.L., Martínez, M., Ruiz Ríos, J.D., Cuervo, V., Solarte, A., Guzman, P.A., Romero, S., Arango, D., Latorre, M.L., Briceño, S., Chaves, J.C., Correa, J.C.

Beyond distance: Uncovering the unrealized potential of bicycling infrastructure to optimize urban cycling for transportation 82
Garza, C., Karner, A., Salvo, D.

Using public participatory GIS to assess neighborhood-level active travel environments in central Texas 83
Swinney, K., Le, S., Garza, C., Zhang, Y., Ganzar, L.A., Karner, A., Bentley, S., Hoelscher, D., Salvo, D.

Epidemiology and evidence of physical activity in populations

Global patterns of active transportation: the Global Observatory for Physical Activity 85
Zhang, K., Varela, A.R., Mejía-Grueso, J., Pratt, M., Hallal, P.R.C.

Meeting 24-hour movement behavior guidelines among Canadian post-secondary students: Temporal trends, disparities, and mental health 86
Hou, M., Beauchamp, M., Kwan, M., Faulkner, G.

State-Level Trends in Cardiovascular Deaths Related to Physical Inactivity in Mexico 87
Ortiz Brunel, J., Pérez Castro, E.

Device-measured physical activity, sedentary time, and cardiometabolic risk in youth: harmonized meta-analysis of prospective studies 88
Ekelund, U., Husøy, A., Tarp, J.

Leisure-time physical activity from pre-pregnancy to postpartum in triplet pregnancies. A Norwegian cohort study 89
Owe, K.M., Andreassen, S.M., Evenson, K.R., Laine, K.

Physical Activity and Health in Youth With and Without Chronic Diseases Post-COVID-19 (COMO Study) 90
Hanssen-Doose, A., Klein, T., Siaplaouras, J., Niessner, C., Reiss, F., Kaman, A., Ravens-Sieberer, U., Reichert, M., Olfermann, R., Worth, A., Volk, C.

Impact of a severe climate event on physical activity inequalities: findings of the PAMPA cohort 91
Feter, N., Feter, J., Caputo, E., Quadros Santos Rocha, J., Cozzensa da Silva, M., Rombaldi, A.J.

Assessing the applicability of the Physical Activity Environment Policy Index to the local level 92
Birkholz, L., van Hoye, A., Garcia Bengoechea, E., Volf, K., Jankauskiene, R., Bacevičienė, M., Heuvelman, F., den Braver, N., Sandu, P., Peter, L., Wachnicka, J., Zukowska, J., Tcymbal, A., Abu-Omar, K., Woods, C., Messing, S.

From inequity to inclusion: population-specific and equity approaches

Expansion of a parent-focused physical literacy intervention for early childhood to families experiencing vulnerability 94
Carson, V., Potter, M., Hwang, Y., Buckler, E.J., Boyd, M., Rhodes, R., Liu, S., Naylor, P.J.

Adapting interventions to promote muscle-strengthening activity in public spaces of low-income communities: a mixed-methods study 95
Martínez Cano, A.M., Hernández Alcaraz, C., Salvo, D., Jauregui, A.

Playing Sports and Paying Attention: Sports Participation and ADHD Symptoms in Childhood 96
Ontiveros Cisneros, N., Ekblom, Ö., Wiklund, C.

Playscapes: A global platform for assessing children's access to playgrounds 97
Schipperijn, J., Ståhle, A.

Accelerating Physical Activity Opportunities for Vulnerable Children in Brazil: A Path to Sustainable School Policy 98
Miranda Tassitano, R., Marinho Tenorio, M.C., da Silva, L.C.

Effectiveness and usability of a co-designed training package for sport professionals working with autistic youth 99
Maddren, C., Gomersall, S., Williams, B., Hill, J.

Who Benefits Most? Community-Level Predictors of Physical Activity and Wellbeing across National Middle-School Cycling Program 100
Schuck, L., Walker, E., Wilson, S., Wiafe, S., Brown, C.

Priority actions to advance human movement behavior research for effective public policy in Mexico development 101
Jáuregui, A., Argumedo, G., Ramírez, E., Jáuregui Ulloa, E., Quevedo, K.L., REMIASS, R.M.D.I.E.A.F.S.Y.S.

7 Oct

Tracking movement: methods, metrics and surveillance

Association of Step Metrics with Quality of Life in Individuals with versus without Cardiovascular Diseases 103
Schootemeijer, S., Kroesen, S., Stens, N., Netten, M., Salzmann, I., Koster, A., Eijsvogels, T., Bakker, E.

Waking-time movement behaviours and multimorbidity in Malawi: a compositional data analysis 104
Warner, B., Nkoka, O., Mwandira, K., Mwakabanga, M., Munthali, S., Price, A., Gray, S., Crampin, A.

How Large-Scale Retail Closures Affect Step Counts Among Local Residents: A Difference-in-Differences Analysis in Japan 105
Arai, K., Kamada, M., Yoshida, T., Yamada, I., Ding, D., Hino, K.

How industrialisation reshapes 24-hour movement and sleep patterns: wearables-based comparisons with hunter gatherers 106
Stamatakis, E., Ahmadi, M., Koemel, N., Chong, K.H., Sayre, K., Hamer, M., Biswas, R., Salali, G.D., Raichlen, D.

Moving time matters: differential effects of movement behaviors reallocations on multiple domains of development 107
Miranda Tassitano, R., Lemos, L., Clark, C., Henrique, R., Tassitano, R., Lemos, N., Luz, L., Gaya, A., Mota, J., Pacheco, A.

Long-term device-based physical activity measurement in adolescents: Analysis of SCAMP cohort assessing its additional value 108
Ricardo, L., Cheng, L., Shen, C., Larsen, S., Hindocha, C., Stanley-Haga, J., B. Smith, R., B Toledano, M., van Sluijs, E.

Ethnographic Methodologies in Physical Activity Research: Opportunities, Challenges, and Future Adventures 109
Hoy, S.

Sitting more, moving less? Fourteen years of device-measured physical activity among Norwegian adults 110
Teinung, E., Teinung, E., Steene-Johannessen, J., Hansen, B.H., Kolle, E., Dalene, K.E., Ekelund, U., Anderssen, S.A.

From research to reality: implementing behavior change solutions

Identifying Implementation Strategies to Enhance Tele-exercise Participation in a Community-based Fall Prevention Program 112
Fuentes Diaz, M.F., Sibley, K., Bouchard, D.

Why Choose to Move?: Participant motivations for engaging with a behaviour change program 113
Tiedemann, A., O'Rourke, S., Ramsay, B., Melgaard, L., Earls, T., West, C., Sherrington, C.

Understanding effective implementation of Physical Activity Programmes: The I-PARC experience 114
Rocliffe, P., Escolme, S., Barrero, A., O' Brien, S., O Hehir, C., D'Arcy, L., H Murphy, M., O' Donoghue, G., Corry, M., Murphy, N., Woods, C.

Digital physical activity-related health care in Germany: Status quo of regulatory quality requirements and synthesized 115
Lange, M., Barisch-Fritz, B., Peters, S., Baumann, H., Eckert, K., Gabrys, L., Heub, A., Kernebeck, S., Maas-Möhlmann, L., Morf, H., Richter, J., Schaller, A., Streber, R., Sudeck, G., Tallner, A., Thiel, C., Voelcker-Rehage, C., Wollesen, B.

Impact of three broadcasts of a social marketing campaign on parental support and physical activity 116
fassier, P., Tano, M., Tessier, D., Rostan, F., Escalon, H., Serry, A.J.

“Ponte de Pie” computer-prompts in office workers: pragmatic mixed-methods cluster randomized trial 117
Leppe, J., Roa, S., Aguila, P., Alvarez, G., Sarmiento, O.L.

Barriers and Facilitators for Implementing Evidence-Based Place-Activation Strategies for Physical Activity in Mexico 118
Lopez-Soto, A., Montero-Zamora, P., Hernández-Alcaraz, C., Garza, C., Le, S., Kepper, M., Brownson, R., Martínez, A.M., Martinez, M., Gonzalez, O., Orozco-Lapray, D., Brown, S., Jáuregui, A., Salvo, D.

“Futbolito for All” Program: Promoting Physical Activity Among Latino Youth 119
Mejía-Grueso, J., Kulesza, C., McKay, S.L., Ramírez Varela, A.

Building active futures: children, youth, families and early life movement

Comparing implementation of Whole-of-school components by school level in the United States 121
Walker, T., Craig, D., Lanza, K., Pfledderer, C., Lee, M., Pavlovic, A.

The role of physical activity in the relationship between stressful life events and mental health 122
Lenze, L., Lenze, L., Bélanger, M., Doré, I.

International Comparison of Parental Tolerance of Potential Risk in Children’s Active Play 123
Faulkner, G., Jelleyman, C., Jerebine, A., Nesbit, R., Barnett, L., Belanger, M., Brussoni, M., Dodd, H., Duncan, S., Gunnell, K., Fitzgibbon, L., Tremblay, M., Larouche, R.

Co-Creating a Systems Map with Adolescents: Combining Participatory Research and Systems Thinking in YoPA Denmark 124
Madsen, L., Skau Pawlowski, C., Schipperijn, J., Chinapaw, M.J., Altenburg, T.M.

Prioritizing action for Active Middle School Communities: A blended Delphi and Group Concept Mapping study 125
Hoelscher, D., Ganzar, L.A., Swinney, K., Springer, A., Karner, A., Hunt, E., Garza, C., Le, S., Bentley, S., Salvo, D.

Who knows best? Essential Playground Features to Maximize Active Play according to Stakeholders versus Parents 126
Reininger, K., Garza, C., Le, S., Morrison, B., Miao, F., Hunt, E., Jowers, E., Salvo, D.

Do parental perceptions of public playgrounds influence children's levels of active and social play? 127
Le, S., Garza, C., Morrison, B., Hunt, E., Jowers, E., Salvo, D.

Physical Activity and Sedentary Behaviors as Personal Resources in Teacher Well-being: A Longitudinal Study 128
Lentillon-Kaestner, V., Guillet-Descas, E., Gudin, M., Cece, V., Bourdillon, N.

Short Orals

7 Oct

Advances in measuring physical activity across contexts and populations

Assessing the impact of varying accelerometer epoch length on daily active time estimation 130
Langford, J.

Required Days for Reliable Measurement of Physical Activity and Media Parenting Practices in Daily Diaries 131
De-Jongh Gonzalez, O., Nieuwenhuijs, E.C., Mâsse, L.C.

Daily 24-Hour Heart Rate and Health-Lifestyle Ratings over 8 Weeks in Physically Demanding Jobs 132
Ekblom-Bak, E., Olsson, K., Lind, J., Spetz, L., Hallman, D., Södergård, O., Larsen, F., Väisänen, D.

Time use patterns among LGBQ adolescents: Longitudinal evidence form a national cohort in Australia 133
Ross, M., Thomas, G., O'Flaherty, M., Gomersall, S., Perales, F., Fortnum, K., Maddren, C., Woodforde, J., Stylianou, M.

The 'Measure It!' RCT: Is frequent measurement of physical activity in cardiac rehabilitation attendees (cost)-effective? 134
Freene, N., Seymour, J., McPhail, S., Tyack, Z., Patterson, K., Niyonsenga, T., Kunstler, B., Hartono, S., Gallagher, R., Abhayaratna, W., Verdicchio, C., Davey, R.

Timing of 24-hour movement behaviours and type II diabetes risk 135
Koemel, N., Chong, K.H., Sabag, A., Ahmadi, M., Stamatakis, E.

Prospective Acceptability of a Primary Fall Prevention app for Canadians age 50+: A National Survey 136
Bouchard, D.R., Fuentes Diaz, M.F., Trinitta Ugwuegbulem, C.O., Delbeare, K., Sibley, K.

Measuring Built Environment Change: A Scoping Review of Methods 137
Lungu, A., Barnett, T., Fuller, D., Kestens, Y.

Developing and validating spatial indicators of cycling access and connectivity across diverse urban contexts globally 138
Higgs, C., Abdollahyar, M., Jafari, A., Turner, R., Liu, S., Saghapour, T., Delclòs-Alió, X., Queralt, A., Molina-García, J., Borello Vargas, J.C., Resendiz Bontrud, E., Hernández Alcaraz, C., Peraza Mues, G., Adlakha, D., Lin, L., Droin, A., Msilanga, M., Heikinheimo, V., Willberg, E., Schifanella, R., Schipperijn, J., Hinckson, E., Salvo, D., Boeing, G., Lowe, M.

Area-level socioeconomic inequalities in active travel in the Greater Tokyo Metropolitan Area: Does age matter? 139
Abe, T., Dogra, S., Sugiyama, T., Owen, N., Chandrabose, M.

Unlocking the drivers of physical activity

Social inequalities influence in physical activity, sedentary behavior and dietary patterns among Colombian adolescents 141
Tonguino Rosero, S., Vergara-González, M.D.M., Zapata-López, J.S., Mendez-Paz, F.

Can gender gap in physical activity be closed by 2030? A systems modelling approach 142
Luo, M., Nguyen, B., Nau, T., Owen, K., Clare, P., Chiu, S., Gary, S., Ding, D.

Association of unmet social needs with longitudinal physical activity in a chronic care management population 143
Reininger, B., Heredia, N., Yang, Z., Lee, M., Lee, S., Mitchell-Bennett, L., Lopez, J., Zolezzi, M.

Don't know what you've got until it's gone: The impact of COVID-19 on sport 144
Szczepanowski, M., Ferro, M.A., Potwarka, L.R., Patte, K.A., Leatherdale, S.T.

Contextual determinants of implementing Acti-Pair in prostate cancer care: a CFIR-based qualitative study 145
Baudot, A., Collange, F., Fayolle, E., Hupin, D.

Three Decades of Sustained Community-Led Diabetes Prevention in Kahnawà:ke Mohawk Territory 146
McBeath, B., Delormier, T., McComber, A.M., Hare, C., Macaulay, A.C., Baillie, C.P., Taylor, V., Lévesque, L.

Physical activity and asthma management: uncovering climate-related barriers and developing an assessment instrument 147
Nyenhuis, S., Cavalier, A., Salvo, D., Sharp, L.

Running on empty? Fatigue, recovery, and health status in adults with physically demanding occupations 148
Lind, J., Vaisanen, D., Olsson, K., Södergård, O., Spetz, L., Larsen, F., Ekblom-Bak, E.

Relationship characteristics and autonomy support for physical activity among inactive women in a dyad-based study 149
Strong, L., McNeill, L., Reitzel, L., Li, Y., Wang, J., Basen-Engquist, K.

Dogs and physical activity: a decade of analysis with adults from São Paulo city, Brazil 150
Antonio Florindo, A., Santana, D.D.

Participatory systems thinking to elucidate drivers of active living disparities in Durham, North Carolina 151
Serrano, N., O'Connor, Á., Bosch, R., Bagans, C.

Physical activity in children and youth: evidence, interventions and outcomes

Measuring interpersonal determinants of adolescents' physical activity in digital and social media: The INDEEP study 153
Quevedo, K., Toosinezhad, S., Martens, L., Christianson, L., Hebestreit, A.

Sex differences in hourly timing of physical activity across the week in 3–4-year-old children 154
Uusitalo, K., del Pozo-Cruz, J., Haapala, E.A., Wackström, N., Roos, E., Engberg, E.

Children's Perceptions of Physical Activity Opportunities Following School Food Policy Implementation in Mexico 155
Garduño-Alanis, A., Contreras-Manzano, A., Jáuregui de la Mota, A., Barquera, S., Argumedo-García, G.

Exploring childcare educator and parent engagement for children's healthy eating and physical activity 156
Francis, J., Wenden, E., Yoong, S., Pearce, N., Thornton, A., Wallace, R., Grady, A., Villa, E., Christian, H., Zhao, M.

Urbanicity attenuates relationships between Child Opportunity Index and physical activity among Texas, USA adolescents 157
Pfledderer, C., Brown, D., Salvo, D., Hunt, E., Mullane, E., Kapfhammer, M., Johnson, A., Ranjit, N., Hoelscher, D.

Obesity and High Blood Pressure in Mexican Youth Aged 5–19: Statewide Screening Findings 158
Jauregui, E., Pérez-Maravilla, J.M., López-Taylor, J.R., Soria-Rodríguez, R., Elizalde-Villarreal, M., González-Navarro, E., Ocampo-Chavarría, A.

Cultural adaptation of the Spanish version of the Global Adolescent and Child Physical Activity Questionnaire 159
Argumedo, G., Benavides-Castro, J.K., Sarmiento, O.L., Angulo, G., Brazo-Sayavera, J., Zavala Crichton, J.P., Larouche, R., Yañez Sepulveda, R.A.

24-hour movement behaviors and cognitive functions in vulnerable Children: Play & Cognition baseline. 160
Bustamante-Ara, N.

Integrating Physical Literacy into the 24-Hour Movement Behavior among Young Adults 161
Dhasmana, A., Singh, K., Sahu, D.K., yadav, S.

Bridging the Gap in Early Childhood Motor Development: Preliminary Evidence from a Public Preschool Program 162
Chuhdry, A., Freire, G., da Silva, J., de Lira, C., Marques, M., Tassitano, R., Chuhdry, A.

Group-Based and One-On-One Physical Activity for Post-Secondary Student Mental Health: Examining Effectiveness and Implementation 163
deJonge, M., deJonge, M., Thibodeau, D., Quesnel, D., Yuen, S., Sabiston, C.

Shaping physical activity through the built and natural environment

Safety, Streets, and Stations: Environmental and Safety Dimensions of Pedestrian Experiences in Monterrey, Mexico 165
Resendiz, E., Resendiz, E., Legaria Peña, J.U., Basu, R., Ponce-López, R., Escobedo Ruíz, N., Placencia Vega, C.J., Martínez Santillán, A., Ferreira, J.

Applying a complex systems approach to the evaluation of traffic restriction schemes outside schools 166
Alliott, O., Ogilvie, D., Anderson, L., Patterson, R., Garrott, K., Carey, E., Guell, C., Panter, J.

Associations of nature visits with early childhood physical activity and motor skills across sociodemographic groups 167
Wackström, N., Uusitalo, K., Simonsen, N., Aaltonen, S., Karppinen, T., Luoma, U.M., Launistola, H., Roos, E., Engberg, E.

Optimizing Physical Activity in Public Open Spaces: Assessing the Adaptability of Place-Activation Strategies for Mexico 168
Montero-Zamora, P., López-Soto, A., Hernández, C., Garza, C., Kepper, M., Brownson, R.R., Martínez, A.M., Martínez, M., González, O., Orozco-Lapray, D., Brown, S., Jáuregui, A., Salvo, D.

Developing and testing globally relevant indicators of healthy, active cities for early childhood 169
Lowe, M., Schipperijn, J., Christian, H., Zhao, M., Villanueva, K., Hinckson, E., Resendiz, E., Krstikj, A., Adlakha, D., Higgs, C., Salvo, D., Cerin, E., Schifanella, R., Boeing, G., Liu, S.

Housing Type and Tenure as Structural Barriers to Cycling for Active Transport 170
Harrington, D., Calvillo Munoz, C.

Playground Design Features and Children's Active Play: An Exploratory Study Across Neighborhood Income Levels 171
Miao, F., Le, S., Garza, C., Morrison, B., Reininger, K., Pellerin, B., Hunt, E., Jowers, E., Salvo, D.

Physical activity security:is it time to "change the conversation" for environmental justice in LMICs? 172
Lambert, E.V., Kolbe-Alexander, T., Mielke, G.

Who benefits most from Renovated Open Public Spaces in Mexican Cities? 173
Hernandez-Alcaraz, C., Resendiz, E., Flores-Pimentel, D., Garza, C., Le, S., Montero-Zamora, P., Kepper, M., Brownson, R., Martinez, A.M., Martinez, M., Gonzalez, O., Lopez-Soto, A., Orozco-Lapray, D., Brown, S., Salvo, D., Jauregui, A.

Built environment impacts on physical activity in Canada: A systematic review of natural experiments 174
Prince, S., Lang, J., Lawrason, S., Vallières, E., Butler, G., Lake, A., McCormack, G.

8 Oct

Advancing physical activity policy, practice and public health

Who Meets MVPA Guidelines? School Type Differences in Antigua and Barbuda 176
Nord-Leth, J., Kemnele, K., Walwyn, L., Walwyn, D., Thomas, A., Airall, A., Janssen, I., Storey, K., Levesque, L.

A decade of French physical activity policies: analysing evolution, characteristics and coordination (2015–2025) 177
Noel Racine, A., Vuillemin, A.

Three Country Pilot Testing of the CATCH PE program in India, Kenya, and Colombia 178
Pfledderer, C., Kelder, S., Hunt, E., Hoelscher, D.

Mental Health Promotion at Paris 2024: Olympic and Paralympic Sponsor Communication Across Four Countries 179
Hale, G., Piggin, J., Ooms, L., Algurén, B., Sevdalis, V., Furtado, S.

Sex inequities in physical activity and health research: the Global Observatory for Physical Activity 180
Lamas, A., Kohn, E., Mejia-Grueso, J., Hallal, P., Pratt, M., Ramirez-Varela, A.

A practice-informed Planning for Liveability Toolkit supporting health equity in planning 181
Davern, M., Delahey, L., Dunn, K.

Device-based physical activity assessment: validity, patterns and inequalities

Advancing communication and visualisation of accelerometer-based 24/7 movement behaviour data: a multi-method study 183
Paiva Marchiori, M., Schipperijn, J.

Comparing self-report and accelerometer-defined physical activity guideline adherence - preliminary ROC Analyses from two Danish surveys 184
Bjørk Petersen, C., Heidler, J., Eghøj, M., Breum Skov Christiansen, L., Koch, S., Schipperijn, J., Bauman, A.

Inequalities in device-measured physical activity among people with physical and mental multimorbidity in Malawi 185
Warner, B., Nkoka, O., Mwandira, K., Mwakabanga, M., Munthali, S., Price, A., Gray, S., Crampin, A.

Multi-Method Analysis of Physical Activity and Sleep Duration in Young to Older Adults 186
Corral, C., Aguinaga, S., Arpin, D., Huibregtse, M., Webb, A., Damon, B.

A Critique of Sample Diversity in Device Based Physical Behaviour Research and Future Recommendations 187
Baumgart, J.K., Coyle-Asbil, H., Vallis, L.A., Milton, K., Atkin, A.

Achievement of moderate-to-vigorous cadence-intensity thresholds using real-time visual feedback from a wearable device 188
Aguiar, E., Lucas, K., Crombie, K., Man, K., MacDonald, H.

Healthcare-based physical activity interventions

Exercise Prescription Characteristics Targeting Chronic Inflammation in People Living with HIV: A Scoping Review 190
García Basto, L.D.

Evaluation of a national programme delivering symptom-focused exercise rehabilitation to adults with long term conditions 191
Marshall, Z., Parmley, J., France-Ratcliffe, M., Price, B., Michael, P., Heaton, S., Innes, A.Q., Deniszczyc, D., Harwood, A., Yeowell, G., Fatoye, F., Doherty, P., Cable, N.T.

Acceptability of a Pilot Transdiagnostic Exercise Programme for Long-Term Conditions. 192
Michael, P., Alexanders, J., Yeowell, G., Price, B., Parmley, J., Marshall, Z., Quinn Innes, A., Elizabeth Harwood, A., Fatoye, F., Doherty, P., Timothy Cable, N., Deniszczyc, D., France-Ratcliffe, M.

Continuous Participation in a CEP-Led Exercise Program Improves and Maintains Physical Function in Older Adults 193
Leadbetter, B., Kendall, K.D., Shields, C., Fowles, J.R.

Physiotherapy-led group exercise with behaviour change to improve physical activity in Parkinson's disease: a RCT 194
Brauer, S., Lamont, R., O'Sullivan, J.

Implementing Physical Activity on Prescription in Primary Care: A Scalable Support and Evaluation Model 195
Dohrn, I.M., Hagströmer, M.

Operationalizing Behaviour Change Theory in Brief Physical Activity Counselling: A COM-B and BCT–Informed 5As Framework 196
Cadri, A., Barnett, T., Bélanger-Gravel, A., team, G.

New Approaches to Supporting Active Living across the Life Course

Associations of caregiver smartphone use and technoference with movement behaviours in early childhood 198
Engberg, E., Hietajärvi, L., Uusitalo, K., Wackström, N., Roos, E.

Youth-led, Community-supported: A 'nothing about us without us' approach to active living 199
Fox, G., Dumo, J., Tandy, S., Pelletier, C., Manyanga, T.

Moving Towards Inclusive and Equitable Physical Activity: An Evaluation of a Peer-Based Post-Secondary Mentorship Program 200
Sunderji, S., deJonge, M.L., Sabiston, C.M.

Objectively Measured Physical Activity and Sleep Changes and Their Impact on Mental Health following a 201
Bai, Y., Fu, L., Song, D., Zhuo, Q., Burns, R., Brusseau, T., Lucero, J.

Physical activity outcomes of a teaching kitchen multisite trial 202
Heredia, N., Lee, C., Massa, J., Janisch, K., Hoelscher, D., McClure, A., Moin, T., Malik, S., Slusser, W., Eisenberg, D.

Identifying Factors Related to Long-Term Engagement of Aging Volunteer Leaders in Fall Prevention Exercise Programs 203
Ugwuegbulem, C., Fuentes Diaz, M.F., Bouchard, D.

Promoting Workplace Physical Activity in Mexico: Results of the "Evaluate-Educate-Activate-Transform" Model in 145,504 Employees 204
Hawley, M.

Moving Together Session Short Orals

7 Oct

Moving Together Session - Highlighting Top Latin American Science

Association between 24-Hour Movement Behavior Composition and Motor and Executive Development among Mexican Preschoolers 206
Pineda Hernández, A., Corral, C.J., Quezada Sanchez, A.D., Argumedo García, G., Olvera, A.G., Aguilar, N., Salvo, D., Okely, A.D., Jáuregui, A.

Pandemic excess mortality and post-pandemic physical activity trajectories: Evidence from urban Mexico 207
Ruiz García de la Cadena, C.G.

Active and Healthy Lifestyle Habits in Chilean Schoolchildren 208
Ibarra Mora, J., Urra, K.

Mexican guidelines on physical activity, sedentary behaviors and sleep 209
Medina, C., Jauregui, A., González, C., Blas, N., Argumedo, G., Hernández, C., Martínez, M.

Exploring the Feasibility of a 24-Hour Movement Behaviour Data Collection Protocol using Fitbits in Mexico 210
Jauregui, E., Harden, S., López y Taylor, J., Jáuregui, E., Lévesque, L.

Changes in physical activity and active living barriers following migration in emerging U.S. Latino communities 211
O'Connor, A., Jacob, R., Andrade, C., Edmond Taylor, K., Howell, C., Salvo, D., De La Garza, L.

Factors influencing midlife Hispanic women's physical activity maintenance: A grounded theory study 212
Lorenzo, E., Aguillon, L., Lyons, E., Wong, R., Wood, L.

Exploring a Combined Vulnerability Socioenvironmental Stratifier for Leisure-Time Physical Activity Inequalities 213
Wendt, A., Siqueira Reis, R., Ferreira Hino, A.A.

Development of "Lideres en movimiento", a school-based intervention to promote physical activity among Mexican adolescents 214
Argumedo, G., Gillison, F., Standage, M., Curran, T.

Identifying Contextually-Relevant Place-Activation Strategies for Promoting Active Leisure in Mexico: An AI-Assisted Mixed Methods Study 215
Garza, C., Montero-Zamora, P., Le, S., Hernandez, C., Kepper, M., Brownson, R., Martínez, A.M., Martinez, M., Gonzalez, O., Lopez-Soto, A., Orozco-Lapray, D., Brown, S., Jauregui, A., Salvo, D.

Valued but vulnerable: Can place-activation strategies promoting active leisure in communities support older adult participation? 216
Orozco-Lapray, D., Hernández, C., Martinez, A.M., Martinez, M., Gonzalez, O., Lopez-Soto, A., Montero-Zamora, P., Garza, C., Le, S., Kepper, M., Brownson, R., Brown, S., Jauregui, A., Salvo, D.

Effects of an urban cable-car on physical activity and quality of life 217
Sarmiento, O., Baldovino-Chiquillo, L., Pasos, D.S., O'Donovan, G., Cantillo, V., Martinez, L., Arellana, J., Guzmán, L.A., Sarmiento, O.L.

Urban policies for walking in peripheries: Children's access to walkable environments in Atizapán de Zaragoza 218
Resendiz, E., Redendiz, E., Krstik, A.

Value of scaling-up interventions to reduce physical inactivity in PAHO frontrunner countries to stop obesity 219
Macholz, A., Soeteman, D., Vejar-Renteria, L., Fernando Alarcon, L., Gomes, F., Garcia-Larsen, V.

Posters

6 Oct

Poster Session Day 1

AgraVida: A Community-Based, Participatory Group Care Model for Diabetes in Rural Mexican Communities-Preliminary results 221
Cook, R., Mejia Gonzalez, M.E., Basto Abreu, A.C., Paz-Cabrera, C.D., Vargas Castillo, L., Ramírez Razo, C.F., Meléndez Acevedo, A.L., Hernández Sanchez, J.A., Torres Rasgado, E., Rosales Baez, L., Zuniga, J., Ainslie, R., Torres Ibarra, L., Tepox Bruno, R.

Associations Between Physical Activity, Screen Time, and Obesity Among U.S. Children, 2018–2022. 222
Sarbah, R., Folorunso, T.N., Edem kpene, G., Miranda Tassitano, R., Marinho Tenorio, C., Ramos Flores Nunes, T.

Barriers and facilitators to achieving a healthy balance in physical activity, sedentary behavior and sleep 223
Blas Miranda, N.B., Argumedo, G., Jauregui de la Mota, A., Medina, C., Hernandez Alcaraz, C., Tapia, B., Ramirez, E.

Barriers and facilitators to physical activity among immigrant Latina women 224
Torres Duque, L.

Body Composition in Middle- and Long-Distance Runners: Comparative Analysis of DXA, Bioimpedance, and Anthropometry 225
Arenas Morales, C., arenas, C., Mecherques-Carini, M.

Cardiovascular Adaptations Following a 12-Week Exercise Program in Overweight Youth 226
Ferreira da Silva dos Santos, S., Forte Freitas Júnior, I., Helena Cristina da Silva Martins, S., Piovan Silva, M.F., Rodrigues Tebar, W.

Development of an Academic Observatory for physical activity and sports in Mexican public university 227
Camarillo Elizalde, D.G.

Effects of Brief Christian Meditation During Long-Distance Trail Hiking in University Students 228
Oliveira-Silva, I., Rabelo, F., Ribeiro Oliveira, J., Andrade, L.

Factors Influencing the Sustainability of Community-Based Fall Prevention Exercise Programmes: A Scoping Review 229
Abel-Adegbite, I., Shishov, N., Gonzalez Lara, M., Sibley, K., Bouchard, D., Kehler, S.

Gendered inequities in adolescents' park use and physical activity: a qualitative study in an Andean 230
Ochoa-Avilés, C., Palacios-Jerves, S., Ochoa-Avilés, A., Deforche, B., VanDyck, D.

Global Observatory of Healthy and Sustainable Cities: Preliminary Spatial and Policy Analysis in Cuernavaca, Mexico 231
Vázquez, E.A., Reséndiz Bontrud, E., Salvo, D., Jáuregui, A., Hernández Alcaraz, C.

Guideline Awareness and Self-Reported Activity by Nativity Status Among Hispanic/Latina Women in the United States 232
Benitez, C., MacDonald, H., Fedewa, M., Winchester, L., Wind, S., Aguiar, E.

Health and lifestyle factors associated with meeting physical activity recommendations among Mexican adults. 233
García Perfecto, M.I., Contreras, A., White, C., Hammond, D., Garduño, A., Jauregui, A., Garcia, I.

Implementation of evidence-based, place-activation physical activity interventions in Mexico according to government, NGOs and residents 234
Mireles, X., Le, S., Lopez-Soto, A., Orozco-Lapray, D., Brown, S., Brownson, R., Garza, C., Hernández, C., Kepper, M., Montero, P., Jáuregui, A., Salvo, D.

Key role of vision habits in prevention and control chronic conditions, mental health, and obesity. 235
Ortega, B.

Knowledge of Doping in Sport Among High School Adolescents From Different School Systems 236
Barros, T., Christine Maccarini Pandolfo, K., Froehlich, M., Benetti Porporatti, L., Azambuja, C.R., Lopes dos Santos, D.

Moving more, sitting less, sleeping well: impacts on diabetes and health costs in Mexico 237
Macías, N., Monterubio, E., Campos-Nonato, I., Jauregui, A., Medina-García, C., Aguilar-Salinas, C.A., Gonzalez-Villalpando, C., Alcalde-Rabanal, J.

Objective Measure of Insecurity and Physical Activity in Urban Mexico: Repeated Cross Sectional Evidence 238
Ruiz García de la Cadena, C.G.

Perceptions of Acceptance of Physical Activity, Sedentary Behavior, and Sleep Guidelines for the Mexican Population 239
González-Alvarez, C., Medina, C., Jáuregui, A., Argumedo, G., Hernández, C., Blas, N.

Physical Activity and Bodily Practices among Colombian University Students: An Analysis of Gender Inequalities 240
Tonguino Rosero, S.

Physical Activity–Based Multimodal Rehabilitation for Migraine 241
Montes Monroy, C.A.

Policy contradictions, gender norms, and community assets in school activity implementation: CFIR study in Mexico 242
Castillo Lortia, N.J., Castillo Lortia, N.J., López Toledo, S., García Perfecto, M.I., Tercero Gómez, F.A., Becerril Montekio, V., Jiménez Aguilar, A., Ochoa Aviles, A.M., Jáuregui de la Mota, A.

Pregnancy thermoregulation and heat stress: wearable temperature sensors versus rectal thermometry for core monitoring 243
Ah Haakstad, L., Melau, J., Dalhaug, E.M., Gjestvang, C., Brevik-Persson, S., Grydeland, M.

Prevention of cognitive decline through a multidomain intervention: Preliminary trial results from Mexico City 244
Sánchez Arenas, R.

Relationship Between Lifestyle Domains, Academic Environment, and Mental Health in Health Sciences University Students 245
Trompetero Gonzalez, A.C., Tordecilla Sanders, M.A., Tellez -Avenadaño, K.Z., Ramírez-Cubillos, K.D.

Sedentary behavior in women from a gender perspective: a scoping review 246
Muñoz, B., Cowan, I., Kobayashi, S., Latife, A., Valdes, B.

Six-Minute Walk Test (6MWT) Prediction Equation for Colombian Adults with Obesity 247
García Basto, L.D., Tonguino-Rosero, S., Zapata López, J.S., Rosero-Carvajal, H.E.

Socio-Economic Differences in Object-Control Skills and Physical Activity among Boys in South Africa 248
Coetzee, D.

Spatial Analysis of Participation in a University Program Promoting Physical Activity in Ribeirao Preto, Brazil 249
Rosa, J.L., Costa, G.P., Teixeira, I.P., Moraes, C.D., Trapé, Á.A.

Staying Active Despite the Weather: Physical Activity in Low-Income Urban Mexico 250
Flores Pimentel, D., Hernández, C., Tercero, F., Tapia, B., López-Soto, A., Orozco-Lapray, D., Salvo, D., Jáuregui, A.

Test-retest and inter-rater reliability of the Brockport Physical Fitness Battery in children and adolescents with 251
Rojas Cano, L.E., Camargo Rojas, D.A., Hernández Álvarez, E., Medina Arias, C., Medina Garzón, P.M.

The Bogotá Ciclovía: Implementation evaluation using the RE-AIM framework 252
Briceño Arias, S., Ruiz Rios, D., Riaño, O., Quiroga, L., Martínez, M., Chaves, J.C., Correa, J.C.

The Liveability Gap: A Scoping Review Urban Liveability in Global South cities and Arid cities 253
Diaz, J., González, A., Luna, D., Higgs, C., Lowe, M., Schifanella, R., Resendiz, E.

Transportation Walking and Depressive Symptoms in Older Mexican Americans 254
Stroope, J., Stroope, S., Park, S.M.

TRiPS-BR cross-cultural adaptation for parental tolerance to risky play and child physical activity 255
Barboza Silveira, M.I., Akira Hino, A., Ramos, B., Gomes Camporeze, R., Schaia Rocha Orsi, J., Isnardi Cardoso Ricardo, L., Wendt, A.

Who teaches physical education? Territorial inequities in Mexico's basic-education teacher workforce 256
Diaz, J., Blázquez Sánchez, D.

Physical Activity Capacity in Nigeria: Results from 2025 GoPA! Country Card 257
Otchere, G., Hassan, U., Lopez, S., Oyeyemi, A.

Results from Belgium’s 2025 GoPA! Country Card 258
Seghers, J., van Uffelen, J.

Results from Burkina Faso’s 2025 GoPA! Country Card 259
Ouedraogo, O., Sawadogo, A., Mejia-Grueso, J., Ramirez Varela, A.

Results from Country France's 2025 GoPA! Country Card 260
Noel Racine, A., Vuillemin, A., Oppert, J.M., Mejía-Grueso, J., Ramírez Varela, A.

Results from the USA of America's 2025 GoPE! Country Card 261
Andrew Richards, K., Marttinen, R.

The State of Physical Education in Nigeria: Insights from the 2025 GoPE! Country Card 262
Hassan, U., Otchere, G., Lopez, S., Oyeyemi, A.

"We'd rather dance than jog!": Albanian Folk Dance & Physical Activity Promotion for Health Equity 263
Sentell, T., Ylli, A., Qirjako, G., Hala, R., Pirkle, C.

"Mzansi, What's Your Move?": A multi-component campaign promoting everyday physical activity 264
Phaswana, M., Gradidge, P.

A mixed-methods evaluation of a semaglutide and lifestyle intervention in a secure mental health setting 265
Brenisin, K., Kinnafick, F., King, J., Breen, K.

A Realist Evaluation of Trauma-Informed Physical Activity: Theory Refinement Across Multiple Cases 266
Makawa, A., Kinnafick, F., Witcomb, G., Jarvis, H.

A Scoping Review on Exercise Interventions for South Asian Individuals Living with Chronic Conditions 267
Bansal, M., Bhullar, I., Puloski, G., Cowan, E., Daun, J.T., McDonough, M.H., Turin, T.C., Culos-Reed, S.N.

Accelerometry-based physical activity and cardiorespiratory fitness in the German National Cohort (NAKO) 268
Brummer, J., Herbolsheimer, F., Kluttig, A., Krist, L., Leitzmann, M., Steindorf, K.

Active Neighbourhoods, Active People: Built Environment Determinants of Physical Activity and wellbeing in Ghana 269
Nyawornota, V.K., Tay, D.A., Ocansey, R.

Adolescent acceptability of physically active learning in UK secondary schools 270
Hollander, L., Armstrong, M., Emm-Collison, L.

Adolescent Movement Behaviours and Emotion Regulation: A Scoping Review of Longitudinal Research 271
Ames, M., Sihoe, C.E., Storey, Q., Grant, G., Styba-Nelson, K., Tremblett, J., Foss, S., Craig, S., Buckler, E.J.

Age-Related Changes in Predictors of BMI in 6, 9 and 12-Year-Old Boys and Girls 272
Gerber, B., Pienaar, A.E.

Association Between Subjective Functional Mobility and Self-Efficacy for Evacuation Behavior in Older Adults 273
Kubota, A.

Associations between 24-hour physical behavior reallocation and depression, anxiety, and stress symptoms 274
Wickel, E., Abeyagunawardene, D.

Associations Between Sport Participation and Heart Rate Responses in 9–10-Year-Old Children 275
Sarkauskiene, A., Kuvaldina, O., Misiunas, E.

Barriers and Facilitators for Physical Activity Among Black-African Older Adults in the UK 276
Abonie, U., Hunte, R., Abonie, E.

Baseline accelerometer-measured physical activity among sixth-graders in low-income, urban Central Texas middle school communities 277
Hunt, E., Zhange, Y., Swinney, K., Ganzar, L.A., Salvo, D., Hoelscher, D., Garza, C., Le, S., Springer, A., Chen, B., Karner, A.

Beyond Movement Alone: Rethinking Health Implications of Purposeful Physical (In)Activity, Stillness, and Rest 278
Hawes, O., Flemons, M., Rigby, B., Matias, T., Piggin, J.

Can Passion for Physical Activity be Reignited? The Role of Emotional Memories 279
St-Cyr, J., Vallerand, R.J.

Can physical activity impact the HRQoL and personal development of young people, alternatively educated? 280
Horner, L., Azevedo, L., Haines, M.

Challenges to sustaining and growing global bike buses to increase active travel to schools 281
O'Hare, K., Ferguson, N., Roberts, J., Harrington, D.

Community-Centred Co-Creation for Relevant, Equitable, and Sustainable Digital Health Interventions 282
Khatib, M.

Depressive symptoms and sedentary behavior patterns in older adults : Potential effect modification by physical performance 283
Akai, K., Nagai, K., Komatsu, R., Tsuji, S., Onishi, M., Shojima, K., Nagasawa, Y., Tamaki, K., Mori, T., Kusunoki, H., Matsuzawa, R., Wada, O., Shinmura, K.

Digital Surveillance of Physical Activity and Enrichment Among Middle School Students in Saudi Arabia 284
Aldosari, M., Dryer, G.

Domain-specific physical activity and dementia risk: a systematic review and meta-analysis with 5 million participants 285
Feter, N., Iso-Markku, P., Markarian, T., Luong, D.M., Gunnink, J., Schröder, N., Caputo, E., Feter, J., Nanda, A., Hourihan, S., da Silva, G.S., Bumaguin, D.B., Klimentidis, Y.C., Alexander, G.E., Hallal, P.C., Umpierre, D., Rombaldi, A.J., Raichlen, D.

Effects of a mind-body intervention on physical activity and emotional wellbeing among rural Black adults 286
Mama, S., McNeill, L., Cohen, L., Li, Y.

Effects of blood flow restriction training on sarcopenia variables in older female 287
Espinosa-Méndez, C.M., Flores-Moreno, P.J., Reyes-Espejel, I., Ortega-González, J.A.

Effects of physical activity calorie-equivalent (PACE) labelling on hot beverage vending machine transactions: stepped-wedge RCT 288
Daley, A., Graham, H., Wang, Y., Bleich, S., Jebb, S., Roberto, C., Martin, J., Hemming, K.

Examining the Breadth of Active Travel Engagement: Reasons, Locations, and Seasonality Among Rural University Employees 289
Scruggs, P.

Exercise-based interventions for smoking cessation: a systematic review and meta-analysis. 290
Singh, B., Petersen, J., Miatke, A., Dumuid, D., Szeto, K., Dankiw, K., Mellow, M., Jayatheertha Vaikar, S., Eglitis, E., Zhou, M., Curtis, R., Simpson, C., Hassan, J., Maher, C.

Exploring perceptions of falls and fall prevention programs among older adults in New Brunswick 291
Kent, D., MacLean, N., Davies, A., Louis, R., McCloskey, R.

Factors Influencing Aging Adults' Participation in Tele-Exercise: A Qualitative Study of a Community-Based Fall Prevention 292
Fuentes Diaz, M.F., Gaudry, A., Sibley, K., Bouchard, D.

Factors influencing physical activity maintenance 293
Dyrstad, S.M., Borgstrøm, H.A., Ree, A.G., Mykletun, M., Diaz de Leon, I.

Fitness Improvements and Achievement of Recommended Physical Activity Levels One Year After Total Hip Arthroplasty 294
Godhe, M., Andersson, E., Stålman, A., Nilsson, J., Godhe, M.

From Motivation to Movement: How Perceived Overweight Shapes Adolescent Physical Activity 295
Kpene, G., Fewu, E., Sarbah, R., Bruno, P.N., Tassitano, R.M., Tenorio, C.M.

Gym experiences across the lifespan: A qualitative study on midlife and older women's physical activity 296
Schneider, K., Tinoco, A., Zuest, L.

Health impacts of replacing short car trips with active travel across European urban areas 297
Velazquez Cortes, D., Nieuwenhuijsen, M.J.

Health Professionals' Volunteering as a Model for Community Physical Activity and Falls Prevention 298
Strkljevic, I., Sherrington, C., Tiedemann, A., Haynes, A., S Oliveira, J., S Kwok, W.

Implementing a Movement-Based SEL Program in Low-Income Preschool Settings 299
Xie, X., Kim, J.

Kickoff For Children: Exploring Equitable Recreational Programming in Head Start: A CFIR-Guided Qualitative Study 300
Hernandez, A., Hantas, R., Alkakooz, A., Soria, I., Hassan, U., Wilson, K., Schulke, M., Poulos, A., Webber, H.

Large-Scale Physical Activity and Sedentary Behaviour Assessments: Rationale and Design of the ActiveLIFE Cohort Study 301
Netten, M., Schootemeijer, S., Bakker, E., Eijsvogels, T.

Life-Course and Sociodemographic Determinants of Active Travel: Evidence from 65,000 UK Participants 302
Runacres, A., Morris, A., Rose, S., Bird, W., Marshall, Z.

Measuring sedentary behaviour in patients with osteoarthritis: Validity and reliability of the Marshall Questionnaire 303
Schumacher, C., Vrijsen, J., Jelsma, J., Bouma, A., Dekker, R., van Dijk, M., te Loo, L., van Mechelen, W., Zwerver, J., van den Akker-Scheek, I.

Mental Well-Being and Physical Activity Outcomes from a Football-Based Youth Mentoring Programme: A Mixed-Methods Evaluation 304
Hale, G.

Natural Environment Features and Early Childhood Physical Activity and Sedentary Time: the SUNRISE Finland Study 305
Luoma, U.M., Luoma, U.M., Engberg, E., Uusitalo, K., Roos, E., Puhakka, S., Karppinen, T., Wackström, N., Pyky, R., Leinonen, A.M., Korpelainen, R., Lankila, T.

Nature-based physical activity interventions for individuals with mental illnesses: a systematic review 306
Wei, Y., Hou, M., Koehle, M., Puterman, E., Faulkner, G.

Pedaling Toward Health: Bridging Research and Action on Bicycling and Well-Being 307
Schuck, L.

Physical activity interventions to prevent functional decline among disaster- or conflict-displaced populations: A scoping review 308
Moriyama, N., Saito, H., Masuzawa, Y., Nishikawa, Y., Tuerxun, G., Ito, N., Abe, T., Tsubokura, M.

Pilot testing training and support on Soweto-based CHWs' Knowledge, Attitudes, Practices regarding physical activity promotion 309
Dikgomo, K., Mapukata, N., Kholvadia, A., Moosa, S.

Play Active national programme for children's movement behaviours in childcare services 310
Christian, H., Trost, S.G., Schipperijn, J., Maher, C., Bauman, A.

Qualitative exploration of mechanisms and contextual factors shaping how traffic restriction schemes influence school travel 311
Alliott, O., Guell, C., Ogilvie, D., Hadfield-Hill, S., Panter, J.

Quality school recess for school-aged students: Consensus statement 312
Pawlowski, C., Ridgers, N.D., Clevenger, K.A., Howie, E.K., Massey, W.V., McLoughlin, G.M., McNamara, L., Ramstetter, C.L., Van Kahn, D.H.H., Van Kerckhove, J., Dankiw, K.A., Schipperijn, J.

Racial and Regional Disparities in Meeting Aerobic and Resistance Training Guidelines in Advanced Prostate Cancer 313
Solberg, A., Grydeland, M., Nilsen, T.S., Storås, A.H., Davis, I.D., Greaves, N., Anderson, S., Fay, A.P., Chi, K.N., Enting, D., McDermott, R., Badal, S., Waihenya, C., Popoola, A., Lazarus, J.M., Mateo, J., Bjartell, A., Omlin, A., Odedina, F., Harrison, S., Ragin, C., Mucci, L., Russnes, K.M.

Role of Educators and Organizational Support in Promoting Active Play and Fms in Childcare Settings 314
Masse, L., Masse, L.C., De-Jongh Gonzalez, O., Buckler, E.J., Wright, C.

Scale-Up Readiness for Link60+: Social Prescribing and Digital Support for Socially Vulnerable Older Women 315
Crystine da Silva Sobrinho, A., Angélica de Oliveira Gomes, G., Pimenta Costa-Guarisco, L., Renata da Rocha Conceição, K., Cavichioli, C., de Paula, L.T.

Screen use of children aged 3-11 in France: findings from the nationwide Enabee study (2022) 316
Verdot, C., El Haddad, M., Motreff, Y., Boudet-Berquier, J., Deschamps, V., Monnier-Besnard, S., Richard, J.B., Bernard, J.Y.

The relationship between objective and perceived neighbourhood walkability and their association with accelerometer-measured physical activity 317
Frehlich, L., Lang, J.J., Prince Ware, S.A., McCormack, G.R.

The weight of victory: post-career health outcomes in former elite athletes from weight-sensitive sports 318
Mellbye, A., Sundgot-Borgen, J., Mathisen, T.F.

Understanding Co-Creation Processes with Adolescents in YoPA Denmark 319
Madsen, L., Westerskov Dalgas, B., Skau Pawlowski, C.

Within-person associations between heart rate and glucose during wake and sleep in physically demanding work 320
Väisänen, D., Olsson, K., Lind, J., Ekblom-Bak, E.

7 Oct

Poster Session Day 2

“La música y el baile me dan alegría”: Latin Dance Program Perceptions for Latino Adults 322
Morales, D., Corral, C., Munoz, M., Aguinaga, S.

Assessing National Physical Activity Guideline Awareness and Preferred Health Information Sources Among Spanish-Speaking Immigrant Populations 323
Trejo Tello, K., Johnson, L.

Association between calibrated sedentary behavior and gain in body fat mass among Mexican health workers 324
Macías, N., Moterubio-Flores, E., Salmerón, J., Meneses-León, J., Jauregui, A., Salvo, D., Villa, U., Gallegos-Carrilo, K.

Association between neighborhood walkability and physical activity among older adults in two Chilean municipalities. 325
Muñoz, B., Fuentes-Kloss, R., Calvo-Sanchez, F., Roman-Ureta, C.

Association between Outdoor Time and Compliance with WHO Physical Activity Recommendations among Mexican Children and 326
Ortiz Rodriguez, A.Z., Pineda Hernández, A., Blas Miranda, N.B., Larouche, R., Jáuregui, A.

Associations between 24-hour physical behavior patterns, β-cell function, and insulin resistance: a cross-sectional ELSA-Brasil analysis 327
Moura, B., do Vale, W., Griep, R., da Fonseca, M.D.J.

Barriers and inequities in physical activity in university extension projects: a mixed-methods study 328
Develey, L., Trapé, Á.

Beyond “No Running”: A human-centered systems approach to school-based physical activity in Mexico 329
García Perfecto, M.I., Ramírez, E., Alejandro Torres, N., Argumedo, G., Ochoa, A., Ochoa, C.

Caregiver and child self-efficacy and physical activity in a primary school children. 330
Calderón Escalante, A., Calderón Escalante, A., Jáuregui Ulloa, E.E., González Cantero, J.O., Flores Villalpando, M., Perez Maravilla, J.M., Ponce Hernández, H.J.Y., López y Taylor, J.R., Jáuregui de la Mota, A.

Comparison of Self-Reported Questionnaires and Device-Based Physical Activity Measures in Older Adults: A Systematic Review 331
Elbanna, F., D’Amore, C., Stoffers, J., Cornish, B., Hakimi, S., El-Moneim, N., Silva, I., Beauchamp, M.

Cross-Cultural Adaptation of the Social Support Scale for Physical Activity in Mexican Children and Adolescents 332
Flores Villalpando, M., Jauregui Ulloa, E.E., Zárate González, I., Juárez Rodríguez, P., Pliego Rayas, A., Ortiz Brunel, J., González Villalobos, M.F., López Y Taylor, J.R.

Cross-sector collaboration drives healthy weight-loss by celebrating culture and friendly competition 333
Mitchell-Bennett, L., Mitchell-Bennett, L., Reininger, B., Sanchez, P., Perez, J., Diaz, S., Lozoya, R.

Effects of Health-on-Board pilot program on energy balance and well-being in offshore workers. 334
Enríquez, C., Ceballos Gurrola, O., Herrera Zepeda, M.D.L.A., Vega Trinidad, J.C., Montoya Martínez, C.A.

Green Space Exposure and Obesity in the Mexican Adult Population 335
Blas Miranda, N.B., Lozada Tequeanes, A.L., Miranda Zuñiga, J.A., Pescador Jimenez, M.

Health, Chronic Diseases, and Physical Activity Among Urban and Rural Older Adults in Southern Brazil 336
Barros, T., Pandolfo, K.C.M., Froehlich, M., Porporatti, L.B., Azambuja, C.R., dos Santos, D.L.

Inequalities in physical activity and sedentary behavior among adults at high diabetes risk 337
Ostolin, T., Fonseca, D.C., Tavares de Oliveira, L., Shibuya Alves, B., Pagano, R., Bersch-Ferreira, Â.C.

Knowledge and Attitudes about Physical Activity Guidelines in Hispanic Parents of Preschoolers: A Systematic Review 338
Lee, R., Nelson, R.F., Schuchardt, C., Stevenson, M.

Living Farther From Parks Is Associated With Lower Physical Activity in Mexico City Adults 339
Ortiz Brunel, J., Jáuregui de la Mota, A., Medina, C., Resendiz, E., Hernández-Alcaráz, C.

MUEVETE:Multicomponent program to improve physical fitness and reduce fear of falling. 340
Enriquez, D.R., Lopez y Tayor, J.R., Franco Avalos, C.J., Licona Pasarin, E., Jimenez Alvarado, J.A.

Physical Activity and Test Anxiety Among Brazilian Students 341
Oliveira-Silva, I., Amorim, S., Ribeiro Oliveira, J., Andrade, L.

Physical activity, weight loss, and stress associated with menstrual disorders in Weight-Class Female Athletes 342
Chavez Castro, S.B., Licona Pasarín, E., Ortiz Ángel, A.G., Jimenez Alvarado, J.A., López y Taylor, J.R., Franco Avalos, C.J.

Purpose-Driven Management in Physical Activity and Health: The CAPF SportHealth Experience in Colombia 343
Guzmán Caicedo, M.U., González Robayo, G.

Recruitment Strategies in Faith-Based Research: The Role of Church Characteristics 344
Gomez, E., Schneider, J., Martinez Sanroman, I., Lara Camarena, N., Arredondo, E.

Relationship between Selective and Alternating attention with Outdoor Play time in school children in Colombia 345
Tordecilla Sanders, M.A., García-Laguna, G., Trompetero-González, A.C., Alvarez-Montoya, E., Pulecio-Pacheco, E.N., Redondo-Bejarano, C., Zuluaga-Gómez, A.F., Ramos-Caballero, D.M., Domínguez-Sanchéz, M.A.

Return on investment and value of scaling-up physical inactivity interventions in the Americas 346
Macholz, A., Soeteman, D., Gomes, F.S., Garcia-Larsen, V.

Strategy for Promoting Physical Activity and Healthy Lifestyles: Ruge UdeG 347
Franco Avalos, C.J., López y Taylor, J.R., Gómez Aldrete, D.

The Implementation of Universal Design for Learning in Preschool Settings: A Proposed Systematic Review 348
Nanthakumar, S., Morales, A., Irwin, J., Tucker, T., Heydon, R., Franklin, M., Cross, L.A., Little, C., Burke, S.

The Length of the Participation Is Associated With the Retention in a University Extension Program 349
Peinado Costa, G., Lucas Rosa, J., Cunha Santos Oliveira, J., de Moraes, C., Alexandre Trapé, Á.

Validation of Physical Activity Icon in the Mexican Physical Activity, Sedentary Behavior, and Sleep Guidelines 350
Martínez, M., Medina García, C., Jauregui de la Mota, A., Hernández Alcaraz, C., González Álvarez, C., Blas Miranda, N.B., Argumedo García, G.

Who meets physical activity guidelines? Social and anthropometric inequalities among Ecuadorian children 351
Molina Cando, M.J.

Overview of physical activity in Japan: Results from the 2025 GoPA! Country Card 352
Inoue, S., Amagasa, S.

Physical activity practice and policy in South Africa: GoPA highlights evidence progress, gaps and missed 353
Kolbe-Alexander, T., Lambert, E.(.

Results from Japan's 2025 GoPE! Country Card 354
Amagasa, S., Inoue, S.

Youth–adult physical activity paradox in Ukraine: GoPA! and GoPE! evidence 355
Pavlova, I., Mejía-Grueso, J., Cristão, R., Martins, J., Ramírez Varela, A.

"Move–Mix it up–Make it fun": Breaking down physical activity guidance for health promotion 356
Brummer, J., Nguyen, D.T., Herbolsheimer, F., Illmann, M., Steindorf, K.

"No one says you died of inactivity": Exploring Social Climate of Physical (in)activity in Canada 357
Sosna, D., Faulkner, G., Gierc, M.

24-hour movement behaviours and cardiovascular mortality in cancer survivors: A compositional analysis in UK Biobank 358
Mitchell, J.J., Blodgett, J.M., Biswas, R.K., Koemel, N., Ahmadi, M., Fisher, A., Stamatakis, E., Hamer, M.

Active Travel Among Rural University Employees: Barriers and Facilitators Across Seasons and Active Travel Levels 359
Scruggs, P.

Adapting primary care-based physical activity interventions: Application of Semi-Automated Machine-Assisted Review and Topic Modeling (SMART) 360
Wassef, K., Wassef, K., Schuster, T., Barnett, T.

Advancing relational understandings of gendered inequities in school physical activity 361
Hoy, S.

Assessing Community Health Workers' acceptability of a physical activity brief intervention protocol: a pilot study 362
Dikgomo, K., Mapukata, N., Kholvadia, A., Moosa, S.

Association between different screen devices use and sleep in children 363
Amaral de Andrade Leao, O., Miranda Tassitano, R., de Oliveira Nava, D., Rodrigues Domingues, M., Homsi Damaso, A., Freitas Silveira, M., Curi Hallal, P.

Barriers to Beach Access and Physical Activity Among Coastal University Students in Brazil 364
Martins, C., Martins, C., Doopiat, L., Wosniak, V., Mélo, T., Ribeiro, E.

Behaviour Change Techniques in Sports Club Health Interventions: Alignment with the HPSC Model 365
Vuillemin, A., Ozbolt, P., Van Hoye, A., Johnson, S., Nilar Win, N., Barros, K., Vuillemin, A.

Characterizing balance exercise content in Canadian community group fall prevention programs: A multi-method study 366
Sibley, K., Miller, C., Zacharias, E., Stern, K., Lochan-Aristide, M., Glasgow, G., Oates, A., Bouchard, D.

Comparing Adherence to Hip and Wrist-Worn Accelerometer Protocols in Adults: A JA PreventNCD Pilot Study 367
Husøy, A., Dalene, K.E., Ekelund, U.

Content analysis of the quality of ChatGPT outputs on physical activity recommendations for workplace settings 368
Lange, M., Heub, A., Adomat, S., Löwe, A.

Correlates of physical literacy amongst elementary school children 369
Oldford, A., Tang, Y., Pelletier, C., Naylor, P.J., Faulkner, G.

Developing a Co-Created Bilingual Online Physical Activity Training for Community Health Workers 370
Paiva-Neto, T., Selzer, A., Morales, D., Rivas, C., Schwingel, A.

Development of online resources to support the implementation of the Physical Activity Advice Continuum 371
R Cox, E., Hill, J., Barrett, S., Seymour, J., Szeto, K., Lay, R., Capio, C., Freene, N., Gomersall, S.

Digital Engagement With the Viva App to Support Healthy Lifestyles in Older Women 372
Crystine da Silva Sobrinho, A., Silva Rodrigues, G.D., de Sá, A.C., Vecchio Sampaio, L.T.D., de Oliveira Gomes, G.A., Bueno Júnior, C.R.

Do school neighborhood microscale built environment attributes influence children's physical activity and active travel? 373
Bentley, S., Ganzar, L.A., Burford, K., Salvo, D., Hoelscher, D.M., Zhang, Y.

Does Social Media Affect Mental Health Differently by Age? Findings from a National Survey (USA). 374
Ayoola, O., Gustavo Machado, P., Patel, A., Amaral de andrade Leao, O.

Early outcomes of Move to Improve: physical activity for children with chronic conditions 375
Davey, E., Willis, C., Sivaramakrishnan, H., Wood, F., Valentine, J., Walwyn, T., Graciet, J., Long, T., Davis, E., O'Meara, D., George, A., Hawthorne, E., Jamieson, G., Maitre, O., Zadow, C.

Estimating life expectancy gains from increased physical activity levels in Queensland, Australia: a lifetable analysis 376
Wanjau, M., Mielke, G., Veerman, L.

Evaluating national scale-up of the Physical Literacy for Communities intervention 377
Pelletier, C., Reis, N., Faulkner, G., Manyanga, T., Naylor, P.J.

Evaluation of a physical activity-based intervention to reduce PTSD symptoms in US military veterans 378
Trejo Tello, K., Palmer, P.

Excessive Sedentary Behaviour and Minimal Physical Activity during Hospitalisation among Children and Adolescents 379
Winther, L., Hellum, M.E., Stahlhut, M., Dall, C.H.

Exercise as moderator in the association between patterns of psychosocial work environment and sickness absence 380
Eriksson, L., Väisänen, D., Lindwall, M., Hellman, T., Ekblom-Bak, E.

Experiences on receiving physical activity counselling in osteoarthritis care: a scoping review 381
Wildekamp, M., Hoekstra, F., McCarthy, E.M., Van der Vegt, N.J., Van den Akker-Scheek, I., Vrijsen, J.

Exploring Perceptions of Movement Behaviour Guidelines in People Diagnosed With Cancer: A Qualitative Study 382
Smith, S., Pandia, T., Bugden, R., Brocklebank, L., Kennedy, F., Lally, P., Hamer, M., Fisher, A.

Exploring Physical Activity Trends Among South African Adolescents: A Scoping Review 383
Radebe, V., Stewart, K., Blair, S., Wicomb, D.

Exploring the Sport Club Stakeholders' Perceptions in Relation to the Needs for Health Promotion Training 384
Mosime, K., Monyeki, M.A.

From Insight to Implementation: A Culturally Responsive Program Developed with Older Adults and Program Providers 385
Lochan-Aristide, M., Bouchard, D., Dogra, S.

Functional Exercise Management of Biomechanical and Balance Deficits in Adolescent Charcot–Marie–Tooth Disease: A Case Report 386
Zwiegelaar, S.A., Lambert, D.

Gender Differences in Mental Health Service Utilization Among Youth in a Community-Based Program 387
Ahmadi, S., Corriveau, H., Gionet, M., Paulin, C., Plourde, V.

Harnessing youth, parent, and community insights for prioritizing active travel improvements: A public-participatory GIS study 388
Le, S., Swinney, K., Garza, C., Zhang, Y., Ganzar, L.A., Karner, A., Bentley, S., Hoelscher, D., Salvo, D.

Health as a motivation for leisure-time physical activity in a university extension program 389
Ferreira da Silva Ramos, J., Detore Develey, L., Vitorio Colombari, A., Alexandre Trapé, Á.

Healthcare Professionals' Perceptions of an Exercise Rehabilitation Programme for Long-term Conditions 390
Ratcliffe, M., Price, B., Marshall, Z.A., Parmley, J., Heaton, S., Deniszczyc, D., Harwood, A., Fatoye, F., Doherty, P., Cable, T., Yeowell, G., Michael, P.

How task constraints shape sprint performance: evidence from 40-m sprint variations in 9–11-year-old children 391
Denysschen, M., Du Plessis, W., Coetzee, D., Smits-Engelsman, B.

How to Measure Play: The Potential of Automated Monitoring of Outdoor Play and Activity Spaces 392
Madsen, C.D., Schipperijn, J., Stewart, T., Heidler, J., Toftager, M.

Implementing Movement-Based SEL in Head Start: Teacher Perspectives and Practices 393
Xie, X., Kim, J.

Keeping older adults active: consumer-informed updates to Safe Exercise at Home 394
West, C., Said, C., Bower, K., Callisaya, M., Batchelor, F., Hill, A.M., Dawson, R., Mackintosh, S., Fu, S., Hill, K., Sherrington, C.

Mates in Motion: Feasibility of a Couple-based Physical Activity Intervention for Cancer Patients and Partners 395
Langer, S., Joseph, R.P., Tao, C., Ingurgio, A., Lee, R.E., Khera, N.

Monitoring Progress in Physical Activity Policy Implementation in Ireland: A Follow-up PA-EPI Study 396
Volf, K., García Bengoechea, E., Woods, C.

Nature Parks on Schools Pilot Study: Community-Based Methodology Development 397
Timby, A., Buckler, J.

Neighbourhood built-environment typologies, physical activity, and health-related fitness by immigrant status in Canada 398
Masihay Akbar, H., Lang, J.J., Prince Ware, S., Kwan, M., Chowdhury, T.T., McCormack, G.R.

Objective daily steps, step cadence, and quality of life across the breast cancer survivorship trajectory 399
Jeff, V., Friedenreich, C., Matthews, C., Wang, Q., Yang, L., McNeely, M., Wagoner, C., Culos-Reed, N., Bell, G., McNeil, J., Dickau, L., Courneya, K.

Parental Knowledge, Attitudes, and Perceived Usefulness of Australian Screen Time Guidelines for Toddlers and Preschoolers 400
Thomas, G., Lau, S., Gomersall, S., Stylianou, M., Bourke, M., Duncombe, S., Vergeer, I., Moraowska, A., Trost, S., Cairney, J., Biddle, S.

Physical activity and fatigue development in child and adolescent cancer survivors. The PACCS study 401
Bratteteig, M., Grydeland, M., Lie, H., Larsen, E., Thorsen, L., Ruud, E., Anderssen, S., Raastad, T., Torsvik, I., Fridh, M., Järvelä, L., Götte, M., Schindera, C., Perrier, F., Rueegg, C.

Physical activity in adolescents: does self-report meet objective measures? 402
Maccarini Pandolfo, K.C., Pereira Barros, T.V., Carneiro Tura, N., Avila Froehlich, M., Reckelberg Azambuja, C., Lopes dos Santos, D.

Physical Inactivity, Mental Health, and Social Connectivity: A National Ecological Analysis 403
Wende, M., Hughey, S.M., Kaczynski, A.T.

Pragmatic evaluation of an e-learning module to increase knowledge and awareness of 24-Hour Movement Guidelines 404
Carson, V., Boyd, M., Kern, C., Potter, M., Cornish, S., Duncan, M., Faulkner, G., Giangregorio, L., Harris, S., Jackson, R., Kuzik, N., Ross, R., Tomasone, J., Tucker, T., Vanderloo, L.

Predictors of One-Year Participation in a Community-Based Fall-Prevention Exercise Program Among Adults aged 50+ 405
Leadbetter, B., Sibley, K.M., Bouchard, D.R.

Radiography on Wheels 406
Kent, D., Boucher, H., Donovan, C., McCloskey, R.

Ready to coach? Assessing readiness for participant testing of a large language model-based exercise coach 407
Norton, K., Altizer, R., Del Fiol, G., Bai, Y., Githinji, P., Kawamoto, K., Estabrooks, P.

Seeing the Bigger Picture: Exploring Children's Screen Use and Outcomes through Collaborative Data Analysis 408
Sanders, T., Conigrave, J., Noetel, M., Pagano, R., Gordon, C., Booker, B., Lonsdale, C., Werner-Seidler, A., Straker, L., Cliff, D.

Sitting Time and Healthcare Costs at Midlife in a Finnish Cohort 409
Akhavan Rad, S., Torkki, P., Korpelainen, R., patija, K., Kiwanuka, F., Ryynänen, K., Leinonen, A.M., Vaarsmo, M.

Structural and Economic Barriers to Physical Activity in Head Start: A Health Promoting Schools Perspective 410
Alkakooz, A., Soria, I.

Subgroup Trends and Disparities in U.S. Youth Movement Behaviors 2016–2023 411
Bai, Y., Ryu, S., Jiang, Q., Carlson, J., Grimes, A., Hasson, R., Hanson, B., Hibbing, P., Moon, M., Staiano, A., McKnight, A., Fairbairn, C., Greenberg, J., Fox, A., Dodson, B., Dooley, E., Stanish, H., Haegele, J.A., Spring, K., Webber-Ritchey, K., Serrano, N., Pate, R.

Submaximal exercise test performance to explain variability in QoL scores following an LTC exercise programme 412
Price, B., Parmley, J., Marshall, Z., Panayiotis, M., Doherty, P., Yeowell, G., Fatoye, F., Harwood, A., Cable, N., Innes, A., Deniszczy, D., France-Ratcliffe, M.

Supporting Transplant Patients through Exercise: Year One Implementation Outcomes from the Transplant Wellness Program 413
Sim, J., Low, J., Perinpanayagam, M., Mustata, S., Burak, K.W., Culos-Reed, S.N.

Sustained Moderate to Vigorous Physical Activity Episode Patterns in Children 414
Han, J., Hughey, S.M., Schipperijn, J., Hipp, J.A.

Telehealth physical activity coaching for older adults and disabled people: the PROPOSE implementation-effectiveness trial 415
Baldwin, J., Purcell, K., Dawson, J., Savage, R., Hassett, L., Tiedemann, A., Pinheiro, M., Haynes, A., West, K., Sherrington, C.

Temporal changes in sleep and physical activity among adolescents before, during, and after COVID-19 416
Tenorio, C.M., Kpene, G.E., Leao, O., Miranda Tassitano, R.

Translating iBelongTeens (TiBT): Co-Creating Physical Activity-Focused Micro-Interventions for Adolescents with Obesity in Clinical Care 417
Burke, S., Gill, B., Morales, A., Macias, M., Irwin, J.D., Tucker, T., Pearson, E.S., Ybarra, M.

Understanding community-level pedestrian safety concerns in Hawai'i: Analysis of qualitative responses in statewide survey 418
Keliikoa, L.B., Saiki, K., Yanagi, T., Matsunaga, M., McGurk, M.

Users' Satisfaction Levels With a National Program for Health Promotion 419
Lopes dos Santos, D., Moreira de Oliveira, A., Scherer, N., Flores Battistella, L.

Using digital technology to assess youth physical activity: Challenges and recommendations. 420
Schneider, M., Woodworth, A., McVicar, J., Thompson, H.R., Lander, N., Maddison, R., Rawstorn, J., Salmon, J.

8 Oct

Poster Session Day 3

Association of physical activity, sedentary behavior, and sleep with the prevalence of diabetes, and estimation 422
Macías, N., Monterrubio, E., Campos-Nonato, I., Jauregui, A., Medina-García, C., Aguilar-Salinas, C., González-Villalpando, C., Ramírez-Villalobos, M., Alcalde-Rabanal, J.

Cambios Físicos y Emocionales en Participantes en un Taller de Caminata para Empleados Universitarios. 423
PLIEGO RAYAS, A.S., Celis Rivera, R.

Cross-cultural adaptation of the Child Gender Socialization Scale for Brazil 424
Camporeze, R., Ricardo, L., Silveira, M.I., Hino, A., Ramos, B., Orsi, J., Wendt, A.

Design and Implementation Protocol of an Intradialytic Exercise Program for Public Hospitals in Jalisco 425
García Báez, R.D.C.

Digital educational intervention on physical activity and body composition in women with suspected cancer 426
Alvarez, M.T., Alarcón-Rojas, C.A., López-Zavaleta, K.C., Ramírez Colina, Z., Martínez Leal, I.A., Guzmán García, R.E.

e-health intervention based on physical activity to reduce fatigue in post-COVID-19 adults 427
Ramos-Caballero, D.M., Forero-Nieto, S., Vargas-Pinilla, O.C., García-Laguna, G., Trompretero-González, A., Tordecilla, M.A., Ramos-Caballero, D.M., Camargo, D., Puentes, I., Mancera-Soto, E.M.

Fat-free mass index, isometric strength, body composition and arterial pressure in Mexican College Students 428
Manjarrez-Montes-de-Oca, R., Silva-Rosas, G.C., Pineda López, L.A., Tlatempa-Sotelo, P., Serrano-Plata, M.D.J.

Hemodynamic Responses to Moderate and Vigorous Intensity Resistance Exercises in Sedentary and Active Adults 429
Jaime, S., Dobbs, W.

Implementation Fidelity in a Community Exercise is Medicine Research–Practice Partnership 430
Estabrooks, P., Norton, K., Stark, A., Vance, D., Huerta, A., Maxfield, E., Thompson, T., Larkin, E., Locke, A., Hernandez, A.

Implementing a Scalable Operational Model for Physical Activity Promotion in Brazilian Primary Health Care 431
Paiva-Neto, T., Rosane Bertoldo Benedetti, T., de Almeida Siqueira Junior, J., Ricardo Rech, C., Schwingel, A.

Interrupting sedentary behavior and its effects on cardiovascular risk factors in University Students 432
Tordecilla Sanders, M.A., García-Laguna, G., Hernández-Lozano, S., WELLFIT, S.

Introducing the PABC-PH Framework: Physical Activity, Perceived Barriers, and Population Context for Public Health Action 433
Guzmán Caicedo, M.U.

Movement Behaviors among Children and Adolescents from Santander de Quilichao, Colombia: Baseline for policy monitoring 434
Benavides-Castro, J.K., González, S.A., Aldana Gómez, L.S., Peñarette Peñarete, J.D., Sánchez, S., Moreno López, S.M., Reina Fernández, M., Vargas, S., Ramos, O.A., Sarmiento Dueñas, O.L.

Muévete Bogotá: An evidence-based physical activity program with the potential to reduce inequalities 435
Giowanny Morales Gamboa, E., Gonzalez Cifuentes, S.A., Pérez Rubio, K.X., Vivas, A., López Serpa, A.C., Espinosa Vargas, J.C., Dominguez-Sanchez, M.A., Herrera Villarraga, H.

Perceptions of community social sport as a strategy for promoting coexistence in commune 1 of 436
Rojas Cano, L.E., Santos, J.F., Caceres Melo, J.S., Diaz Rincon, J.S., Ballesteros Iza, D.A.

Physical Activity and Cardiovascular Health in Guatemala's Dry Corridor 437
Mejía-Grueso, J., Rivera Pinzón, D.C., Urbina Moreno, L.A., García Sierra, A.M., Pinzón Ortiz, J.D., Pinilla, M.J., Ortiz, L., Melgar, M., Ramírez Varela, A.

Physical Activity and Perceived Barriers Among Adults in Málaga, Colombia: A Cross-Sectional Study 438
Guzmán Caicedo, M.U., Ramos Caballero, D.M., Mendoza, D.

Physical Activity–Oriented Neurorehabilitation After Stroke 439
Montes Monroy, C.A.

Physical Intervention Program Through Soccer to Improve Physical and Cognitive Capacities in Adolescents in Morelos 440
Sotelo Salazar, L., Gomez Miranda, S.

Pilot Implementation of the GAC PAQ App in Rural and Urban Bogotá, Colombia 441
Benavides-Castro, J.K., Benavides-Castro, J.K., Sarmiento Dueñas, O.L., Romero Parra, P.F., Espinel Barragán, G., Larouche, R.

Sarcopenia, Handgrip Strength, and Physical Activity in Older Adults from a Honduran Community 442
Hernández-Santana, A., Maradiaga, A.

Sedentary behavior, physical activity, and cardiometabolic risk: a cross-sectional study on postmenopausal Mexican women 443
Macías, N., Espinosa-Montero, J., Flores, M.E., Aguilar-Salinas, C.A., Jauregui, A., Salmerón, J., Gallegos-Carrillo, K., Macías, N.

Sex differences in integrated movement behaviors among first-year Mexican university students 444
Arellano Gómez, L.P., Nuño Anguiano, K.J., Ramos García, C.O., Mendivil Rangel, E.J., Ruiz Valenzuela, R.E., Alcaraz Mejía, M.I.

Student Retention in Higher Education: The Role of Physical, Cultural, and Leisure Activities in Promoting 445
Ferreira da Silva dos Santos, S., Claudino Momesso, T.

University extension activities: equity and inclusion to promote physical activity and health 446
Trapé, Á., Costa, G.P., Oliveira, J.C.S., Ramos, J.F.D.S., Bandeira, R.O.M., Colombari, A.V., Develey, L.D., Carrijo, G.M.L., Silva, A.P.D., Moreira, M.M., Rosa, J.L., Moraes, C.D.

What matters in public open spaces for adolescents? Frequency of use and importance of park 447
Molina Cando, M.J.

Results from Burkina Faso's 2025 GoPE! Country Card 448
Ouedraogo, O., Sawadogo, A., Cristão, R., Martins, J.

The GoPA! Country Card as a Catalyst for Physical Activity Policy and Practice in Germany 449
Siefken, K., Manz, K.

A Qualitative Study of Multilevel Determinants of Park-Based Physical Activity in Community Settings 450
Craig, D., Lee, M., Walker, T., Pfledderer, C., Boyce, L., Schein, E., Tijerina, J., Phung, K., Gardiner, H.

A Simplified Non-Invasive Model to Strengthen Cardiometabolic Risk Surveillance Systems in Community and Primary Care 451
Maccarini Pandolfo, K.C., Reckelberg Azambuja, C., Vicente Pereira Barros, T., Avila Froehlich, M., Lopes dos Santos, D.

A Workplace Intervention to Reduce Prolonged Sitting and Increase Sit-to-Stand Transitions 452
Akhavan Rad, S., Torkki, P., Korpelainen, R., patija, K., Kiwanuka, F., Ryynänen, K.

Active yet sedentary: Social patterning of physical activity and sitting time across 27 European Union 453
Memon, A.R.

Adapting Physical Activity to Extreme Weather: Community Experiences from Hurricanes Helene and Milton 454
Wende, M., Frank, D., Aytur, S., Stroope, J., Gustat, J., Umstattd Meyer, M.R., Valentine Goins, K., Wende, M.E.

Affective and social responses to different exercise formats: an exploratory study in psychiatric day-care settings. 455
Duina, M., Corretti, G., Carraro, A.

An evaluation of enrollment, adherence, and physical fitness in a community-based exercise program 456
ONeill, C., Bodnar, I., Hausen, M., Fowles, J.

Associations Between 24-Hour Blood Pressure and Daily Health-Related Ratings in Workers with Physically Demanding Jobs 457
Olsson, K., Ekblom-Bak, E., Lind, J., Spetz, L., Södergård, O., Larsen, F., Väisänen, D.

Associations between adolescent physical activity intensity spectra and mental health: a multivariate pattern analysis 458
Vedøy, I.B., Skulberg, K.R., Aadland, E.

Associations Between Daily Physical Activity and Mood in Youth at Risk for Depression 459
Ames, M., Sihoe, C.E., Grant, G., Styba-Nelson, K., Tremblett, J., Buckler, E.J.

Associations Between Whole-of-School Physical Activity Opportunities and Academic Achievement in U.S. Elementary Schools 460
Craig, D., Lanza, K., Pfledderer, C., Onadeko, K., Lee, M., Pavlovic, A., DeFina, L., Walker, T.

Barriers to physical activity in adolescent childhood cancer survivors: A PACCS study 461
Grydeland, M., Bratteteig, M., Rueegg, C.S., Lie, H.C., Larsen, E.H., Torsvik, I.K., Schindera, C., Götte, M., Lähteenmäki, P.M., Larsen, H.B., Anderssen, S.A., Ruud, E., Thorsen, L.

Beyond the ‘Gym User’: Distinct exercise types and intersectional associations among 57,000 Swiss fitness-center members 462
Lenze, L., Frahsa, A.

Beyond the Chair: National Patterns of Sedentary Behaviour in Canada 463
Riopel-Meunier, J., Anassour Laouan Sidi, E., Poirier, P., Piché, M.E.

Bogota Activa: Physical activity and recreation programs promoting active lifestyles and wellbeing in community-settings 464
Vivas, A., Molina Gaitan, C.Y., Candela Garcia, A.G., González, S.A., Domínguez-Sanchéz, M.A., Garcia cañon, D., Morales Caicedo, I.D., Combariza Pulido, L.J.

Cardiovascular health and future risk of cardiovascular events: the Tulsa Heart Study 465
Wickel, E., Atilano, O., Hoover, A., Krishnan, B., Smucker, E., Tefft, M.

Characterising Physical Activity Counselling Interactions in Adults with Osteoarthritis or Total Joint Prosthesis 466
Wildekamp, M., Te Loo, L.M., Jelsma, J.G., Van Dijk, M.L., Schumacher, C.C., Vrijsen, J., Van den Akker-Scheek, I., Hoekstra, F.

Childhood Adversity and Device-Based Physical Activity in Adolescence: Evidence from the ABCD Study 467
Hunt, E., Brazendale, K., Pfledderer, C.

Community-Led Street Initiatives Accelerating Active Transport and Sustainable Neighbourhood Transitions 468
Harrington, D., Herring, E., Cory, K., Williams, E., Bonner, J.

Correlates of Muscle and Bone Strengthening Guideline Adherence in Children and Adolescents: GAC-PAQ Pilot Study 469
Rostami Haji Abadi, M., Jauregui, A., Baghestani, A., Widyastari, A., Khadilkar, A., Delisle Nyström, C., Santos Silva, D.A., Argumedo Garcia, G., Brazo-Sayavera, J., Richards, J., Löf, M., Kuntembwe, M., Smith, M., Subedi, N., Sarmiento, O.L., Akwaboah, P., McRae, R., Sepulveda, R.Y., Mandlik, R., Aubert, S., Neves de Oliveira, S., Manyanga, T., Mwase-Vuma, T.W., Loney, T., Hamrik, Z., Tremblay, M.S., Zavala Crichton, J.P., Oyeyemi, A., Larouche, R.

Culturally-Tailored, Family-Based Physical Activity Intervention for Urban Black Girls with Asthma in Chicago, Illinois, U.S. 470
Nyenhuis, S., Cavalier, A., Wright, B., Luna, J., Langer, S., Salvo, D., Volerman, A., Min, H., Spadoni, N.

Designing a Culturally Tailored mHealth Muscle-Strengthening Intervention for Black Women with Obesity: A Qualitative Inquiry 471
Joseph, R.P., Peterson, S., Gaesser, G.

Designing Equity-Oriented National Data Infrastructure for Sport and Physical Activity 472
Mann, S., McReynolds, S.

Different activity types, different stories: Insights from multiple interview studies on adolescents’ experiences and well-being 473
Lenze, L., Glauser, L., Zurfluh, L., Frahsa, A.

Drowning Prevalence and Risk Profiles in a Coastal Region of Southern Brazil (2017–2025) 474
Martins, C., Martins, C., Dos Santos, L., Ribeiro, E.

Early Screen Time and Later Cardiometabolic Risk in Australian Children 475
Booker, B., Parr, E., Conigrave, J., Sherson, J., Lonsdale, C., Sanders, T.

Exploring Community-Based Physical Activity Strategies for Non-Communicable Disease Prevention and Management in South Africa 476
Simamane, M., Mathunjwa, M.

Feasibility of implementing a hospital-based physical activity program for children with chronic conditions 477
Davey, E., Willis, C., Sivaramakrishnan, H., Wood, F., Valentine, J., Walwyn, T., Graciet, J., Long, T., Davis, E.

Flipping the script: Examining the prevalence of youth who participate in no sports using COMPASS 478
Szczepanowski, M., Leatherdale, S.T.

Frailty and COVID-19 Infection Among Older Adults with Cardiovascular Disease: A Prospective Cohort Study 479
Reed, J., Hausen, M.

From Intention to Implementation: Evaluating a Primary-Focused Physically Active Learning Workshop for Educators 480
Pearson, E., Marcotte, P., Burke, S.M.

Gender-sensitive public health strategies to promote active leisure time among university students: evidence from Bogotá 481
Castro Jimenez, L.E., Pinzón Porras, B.D.

Has the physical activity tracker market saturated among Finnish adolescents? 482
Ng, K., Hämylä, R., Kokko, S.

Influencing public attitudes around traffic crashes involving pedestrians: An experimental study using media framing 483
Keliikoa, L.B., Matsunaga, M., Irvin, L., Hansen Smith, H., Menina, J., McGurk, M.

Lessons learned from a pilot single-case EMA study of real-time lifestyle determinants in multimorbid individuals 484
Brummel, B., Hoedjes, M., Soedamah-Muthu, S., Habibovic, M.

Living Near Blue Spaces Modifies Associations Between Port Area Proximity and Heart Rate Variability 485
Ostolin, T., Oliveira de Jesus, M., Zuniga Dourado, V.

Longitudinal Effects of a Physical Exercise Program for Older Adults: From 2019 to 2025 486
Aparecida Calderão Spósito, L., Neres da Silva, P.H., Trapé, Á.A., Kokubun, E.

Occupational fitness trends from 2007 to 2019 using the Canadian Health Measures Survey 487
Prince, S., Biswas, A., Lang, J.

On the margins of movement: Physical activity participation in affectionate and gender minority adolescents 488
Buckler, J., Buckler, J., Grant, G., Sihoe, E., Tremblett, J., Styba-Nelson, K., Ames, M.

Once Active, Always Active? A Meta-Analysis of Physical Activity Tracking across the lifespan 489
Runacres, A., Oldfield, S., Franklin, Z., Marshall, Z.

Participant-reported outcomes of a national community-based exercise and education rehabilitation programme for joint pain 490
Parmley, J., France-Ratcliffe, M., Michael, P., Price, B., Cable, N.T., Doherty, P., Yeowell, G., Harwood, A., Fatoye, F., Heaton, S., Innes, A.Q., Deniszczyc, D., Chandgothia, M., Marshall, Z.A.

Patient perspectives on the facilitators and barriers to physical activity promotion in primary care 491
Nikolopoulos, R., Bélanger-Gravel, A., Nugus, P., Gauthier, A., Carver, T., Filip, C., Barnett, T.

Physical Activity and Sedentary Behavior in Current and Recently Retired College Athletes Versus Nonathlete Controls 492
Capin, J., Wojcicki, B., Acklie, P., Larson, A., Lennon, S., Farquhar, W., Smith, C., Hunter, S., Street, J.

Physical activity in girls with abdominal pain: Findings from an eight-month dance and yoga intervention 493
Folkesson, M., Särnblad, S., Philipson, A., Duberg, A.

Physical Activity Policy, Research, and Evaluation Network (PAPREN) Rural Hub: Collaboration across research and practice 494
Wende, M., Stroope, J., Abildso, C., Beattie, C., Balis, L.E., Umstattd Meyer, M.R.

Physical activity trajectories throughout the COVID-19 pandemic in southern Brazil: findings of the PAMPA cohort 495
Gunnink, J., Feter, N., Caputo, E., Luong, D., Delpino, F., Feter, J., Rocha, J., Silveira da Silva, L., Schröeder, N., Rodrigues Curi Hallal, P., Rombaldi, A.

Physical Activity, Sleep Quality, and Quality of Life in Visually impaired Adults 496
Yli-Piipari, S., Frederic, G.M., Kirk, N.

Quantitative Analysis of User Metrics on a Digital Platform for Promoting Student Physical Activity 497
Loewe, A.

Reconceptualizing Physical Activity Advocacy as a Dialogical Professional Competency: A Practice-Based Integrative Framework from Japan 498
Egawa, K.

Screen-related Parental Practices and Children's 24-Hour Movement Behaviours in Urban Mexico 499
Sanchez, A., Ortiz Hernández, L., Lévesque, L.

Strengthening Community Capacity to Deliver Evidence Based Family Healthy Weight Interventions 500
Hill, J., Heelan, K., Bryce, A., Michaud, T., Estabrooks, P.

Supporting and upskilling health professionals to promote physical activity: the PROMOTE-PA implementation-effectiveness trial 501
Baldwin, J., Purcell, K., Dawson, J., Savage, R., Hassett, L., Tiedemann, A., Wang, B., Pinheiro, M., Haynes, A., West, K., Sherrington, C.

Supporting people with cerebral palsy and other neurological disabilities to participate in sport and recreation 502
Sherrington, C., Sherrington, C., West, K.

Sustaining mobility in later life: preliminary qualitative findings from the ACE peer-volunteering intervention 503
Stathi, A., Davies, A., Chatwin, K., Szekeres, Z., Hawley-Hague, H., Crone, D., Harper, A.

Systems-Based Diagnostic of Physical Activity Implementation and Engagement in Head Start Networks 504
Soria, I., Alkakooz, A.

Testing a Heat Acclimatization Intervention for Safe Summer Physical Activity of Children 505
Murray, T., Williams, S., Malbari, A., Chen, B., Lanza, K.

The association between recognition of a French social marketing campaign and parental support is mediated 506
fassier, P., Tano, M., Escalon, H., Rostan, F., Serry, A.J., Tessier, D., Fassier, P.

The Financial Impact of Resistance Training on Work Productivity Among Healthcare Employees in Saudi Arabia 507
AlAbandi, Z.

The relationship between objective and perceived neighbourhood walkability and transportation and recreational physical activity 508
Frehlich, L., Lang, J.J., Prince Ware, S.A., McCormack, G.R.

Understanding Inequalities in Physical Activity Participation Among British South Asian Girls: A Scoping Review 509
Razaq, R., Sabahat, Z., Bingham, D., Iqbal, S., Barber, S., Jago, R.

Using workflow analysis to optimize distribution of a home-based health intervention for American Indian families. 510
Bolyard, M., Tomayko, E., Adams, A., Warne, T., Swenson, E., Estabrooks, P.

Visualizing the Global Evidence for CUlturally and REgionally Relevant Physical Activity (CURE-PA) 511
Sentell, T., Grout, L., Look, M., Yokooji, E., Pirkle, C., Soo Hoo, C., Ylli, A., Câmara, S., Taira, D., Rodericks, R.

Where Evidence Is Scarce and Burden Is Growing: Physical Activity and Dementia Risk Worldwide 512
Luong, D., Feter, N., Iso-Markku, P., Markarian, T., Gunnink, J., Schroder, N., Caputo, E., Feter, J., Nanda, A., Hourihan, S., da Silva, G., Ventura, A., Benzano Bumaguin, D., Klimentidis, Y., Alexander, G., Hallal, P., Umpierre, D., Rombaldi, A., Raichlen, D.

Wrist Algorithms: Verification, Evaluation, and Surveillance group (WAVES): Global physical activity surveillance using wearables 513
Fuller, D., Ahmadi, M., Doherty, A., Stamatakis, E., Martinez, J., Bach, K., Keadle, S., Strath, S., Matthews, C., Brocklebank, L., Maylor, B.

SYMPOSIA

6 Oct | Parallel Symposia 1

ISPAH Equity Panel: Advancing Physical Activity Equity: A Critical Dialogue on Who Gets to Be Active – and Why

AUTHORS

Gomersall, S.[1], Ross, M.[2], Roberts, J.[3], McGuire-Adams, T.[4]

AFFILIATIONS

[1]Health and Wellbeing Centre for Research Innovation, School of Human Movement and Nutrition Sciences, The University of Queensland, Brisbane, Australia, and School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia

[2]The University of Queensland, Australia

[3]Physical Cultural Studies Research Group, Department of Kinesiology, University of Maryland

[4]Tier II Canada Research Chair in Indigenous Health Resurgence Director, H.E.A.R.T. Research Lab (Health Education and Resurgence Theory) Associate Professor of Socio-Cultural Studies Faculty of Kinesiology and Physical Education University of Toronto, Canada

This Symposium brings together three internationally recognized scholars whose research examines equity, inclusion, and justice in physical activity and health. A Prof Tricia McGuire-Adams (University of Toronto), A Prof Jennifer D. Roberts (University of Maryland), and Dr Megan Ross (The University of Queensland) will engage in a critical conversation about the social, cultural, historical, and structural factors that influence who has opportunities to be physically active and who remains excluded.

Moving beyond individual behavior change, the panel will explore how systems, policies, and institutions shape access to physical activity across diverse communities. Panelists will discuss what meaningful progress toward equity looks like, how we can distinguish genuine change from equity rhetoric, and whose voices and knowledge are prioritized in the design of programs, policies, and research. Drawing on perspectives from Indigenous resurgence and decolonization, health equity and historical truth-telling, and LGBTQIA+ inclusive health promotion, the discussion will highlight the importance of community expertise and lived experience in creating equitable opportunities for movement and wellbeing.

The session will also examine the value of an intersectional lens in understanding how multiple identities and systems of power interact to shape experiences of inclusion and exclusion. Rather than focusing solely on helping marginalized groups fit into existing systems, panelists will consider what it would mean to redesign those systems altogether.

Participants will leave with a deeper understanding of physical activity equity, concrete examples of action and accountability, and practical strategies for advancing more inclusive, just, and responsive approaches within their own organizations, research, policies, and communities.

United States

Physical activity engagement among women in Mexico and the United States: past, present, and future

AUTHORS

Aguinaga, S.[1], Jáuregui, A.[2], Munoz, M.[1], Corral, C.[1], Morales, D.[1]

AFFILIATIONS

[1]*University of Illinois at Urbana-Champaign*
[2]*Instituto Nacional de Salud Pública*

Purpose: This interview symposia will examine innovative directions for advancing research on women's engagement in physical activity. By exploring the sociocultural and environmental factors that shape women's participation, we aim to identify strategies for designing and tailoring interventions that effectively address these barriers. Understanding these influences is essential for developing more equitable, evidence-based programs that promote long-term physical activity interventions among women, with a particular focus on women in Mexico and Latina women in the United States. Rationale: Despite the Physical Activity Guidelines recommending 150 minutes of moderate intensity physical activity and two days of muscle-strengthening activities per week, recent trends indicate that physical inactivity among women in Mexico has increased between 2006 and 2023. In the United States, 18% of Latina women report meeting guidelines compared to 28% of Latino men. Addressing the sociocultural and environmental factors that contribute to this disparity is critical for developing effective interventions that can close this gap. This topic is suited for an interview style symposium as it highlights the unique expertise of scholars working at the intersection of physical activity and health disparities. This format will foster richer dialogue and inspire further research within this understudied area of physical activity. Brief Description: Alejandra Jáuregui (AJ) has expertise on examining movement behaviors and their implications for public health in Latin America. AJ published an article examining sex disparities in physical activity among Mexican adults using national survey data demonstrating declines among women ages 30-59 years, with ongoing research examining gender-specific barriers and facilitators shaping women's and girls' participation. Susan Aguiñaga (SA) has expertise on designing culturally tailored physical activity interventions among Latinos in the United States. SA has conducted a qualitative study exploring perceptions on resistance training among Latina women across the lifespan. The interviewees have relevant expertise to discuss the social, cultural, and environmental components that impact women's engagement in physical activity. The moderators bring complementary experience in physical activity research, community engagement, and health equity, and will facilitate an interactive dialogue connecting empirical evidence with real-world implementation challenges. The symposium will cover the following: First (10 minutes), the moderator will introduce the interviewees and provide a brief overview of current physical activity participation trends among women in Mexico and the U.S. Second (15 minutes), the conversation will focus on key sociocultural, structural, and environmental barriers that limit women's engagement in physical activity. Third (15 minutes), the interviewees will discuss strategies for culturally tailoring physical activity interventions, highlighting examples from diverse populations and settings. Following the interview, (15-minutes) the audience will be invited to reflect on barriers and facilitators relevant to their own countries or communities. Participants will be encouraged to share insights, pose questions, and contribute to an open discussion to foster cross-cultural learning and collaborative idea-building. Conclusion: This innovative interview is expected to generate insights into the sociocultural and environmental factors shaping women's physical activity participation and to inform evidence-based, culturally tailored strategies that attendees can adapt to improve engagement in their own communities/countries.

United States

GoPA! Country Cards: development, dissemination, and lessons learned

AUTHORS

Pratt, M.[1], Mejía-Grueso, J.[2], Kolbe-Alexander, T.[3], Siefken, K.[4], Pratt, M.[5], Hallal, P.C.[6], Bauman, A.[7], Amagasa, S.[8], Inoue, S.[9], Ramirez Varela, A.[10]

AFFILIATIONS

[1]*UC San Diego*

[2]*Global Observatory for Physical Activity – GoPA!, Houston, TX, USA.*

[3]*School of Health and Medical Sciences, Centre for Health Research, University of Southern Queensland, Queensland, Australia; UCT Research Centre for Health through Physical Activity, Lifestyle and Sport (HPALS), Division of Research Unit for Exercise Science and Sports Medicine, University of Cape Town, Rondebosch, South Africa.*

[4]*Institute of Interdisciplinary Exercise Science and Sports Medicine (IIES), MSH Medical School Hamburg, Hamburg, Germany.*

[5]*Herbert Wertheim School of Public Health and Human Longevity Science, University of California San Diego, San Diego, CA, USA*

[6]*Institute University of Illinois Urbana-Champaign, Champaign, IL, USA*

[7]*Sydney School of Public Health, Faculty of Medicine and Health, The University of Sydney, Camperdown, New South Wales, Australia*

[8]*Department of Health Promotion and Behavioral Sciences, Graduate School of Medicine and School of Public Health, Kyoto University, Japan.*

[9]*Department of Preventive Medicine and Public Health, Tokyo Medical University, Tokyo, Japan*

[10]*Department of Epidemiology, School of Public Health; Department of Pediatrics, McGovern Medical School; Center for Health Promotion and Prevention Research; Institute for Implementation Science, The University of Texas Health Science Center at Houston (UTHealth Houston), Houston, TX, USA.*

Purpose To present the results from the 3rd set of Global Observatory for Physical Activity (GoPA!) Country Cards and the 1st set of Global Observatory for Physical Education (GoPE!) Country Cards, describing the current global status of physical activity and physical education surveillance, policy, and research capacity. The symposium also aims to show how country representatives are disseminating these results, engaging stakeholders, and using the findings to inform national dialogue for physical activity promotion. Description The release of the third GoPA! Country Cards and the first GoPE! Country Cards offer and up-to-date overview of standardized global evidence on physical activity and physical education surveillance, policy, and research. However, beyond reporting global data, an important question remains: how are countries interpreting, disseminating, and using these results? This symposium focuses on two linked components. First, the Chair will introduce the session by outlining the evolution of GoPA! and GoPE!, the rationale for the Country Cards, and the key global findings from the most recent releases, including progress achieved and gaps that persist across regions. This introduction will frame the current global status of physical activity and physical education monitoring and set the context for country-level reflections. Second, the symposium will feature six short regional presentations from representatives from The Americas, Europe, Africa, South-East Asia, and the Western Pacific. Presentation 1 from The Americas will describe dissemination of GoPA! results in Colombia and how the findings have informed national discussions on physical activity promotion. Presentation 2 from Europe will present experiences from Portugal using GoPE! data, focusing on dissemination to education stakeholders. Presentation 3 from Brazil will reflect on the use of GoPE! results to increase visibility of physical education data. Presentations 4, 5, 6 from Africa, South-East Asia, and the Western Pacific will describe how Country Contacts in South Africa, Nepal, and the Philippines have disseminated GoPA! and/or GoPE! results, engaged stakeholders, and interpreted the findings within their respective contexts. Across these presentations, speakers will focus on what has been achieved, what has not progressed as expected, and the practical challenges of communicating global monitoring results nationally. The symposium will conclude with a discussion that will synthesize common themes across regions, highlighting similarities and differences in dissemination experiences and data use. Brief clarifying questions will follow at the end of the presentations. Participants will be encouraged to share experiences, identify challenges, and reflect on strategies to strengthen dissemination and collaboration. Live polling will be used to capture audience perspectives on priorities, capacity needs, and next steps for translating global monitoring into sustained national action. Total time: 60 minutes Chair: Andrea Ramirez Varela (9 minutes) Presenter 1: Juliana Mejía-Grueso (The Americas – Colombia) (7 minutes) Presenter 2: Rafael Cristão (Europe – Portugal) (7 minutes) Presenter 3: Danilo Silva (The Americas – Brazil) (7 minutes) Presenter 4: Tracy Kolbe-Alexander (Africa – South Africa) (7 minutes) Presenter 5: Narayan Subedi (South-East Asia – Nepal) (7 minutes) Presenter 6: Jonathan Cagas (Western Pacific – Philippines) (7 minutes) Discussant: Katja Siefken (9 minutes)

United States

Are Whole-School Approaches or Targeted PE Interventions More Effective for Increasing Physical Activity?

AUTHORS

Hunt, E.[1], Morgan, K.[2], ng, K.[3], Pfledderer, C.[4]

AFFILIATIONS

[1]*UTHealth*

[2]*School of Social Sciences, Cardiff University*

[3]*Department of Physical Education & Sport Sciences, University of Limerick*

[4]*Department of Health Promotion & Behavioral Sciences, University of Texas Health Science Center - Austin*

Purpose The purpose of this debate is to examine whether whole-school systems approaches or targeted physical education (PE) interventions offer the most effective and scalable means of increasing physical activity (PA) in school-aged children. This topic is innovative because it challenges assumptions about what works across different socio-ecological levels of the school system and considers evidence from high-income and low- and middle-income countries (LMICs). Rationale Schools are central settings for PA promotion, yet the most effective leverage points remain contested. Whole-school approaches aim to shift culture, policy, and environment, including active travel—yet often face structural constraints. In contrast, targeted interventions such as curriculum-based PE programmes may produce large and immediate behaviour changes but may not address broader inequalities. Given these divergent perspectives and the global relevance of school PA promotion, this debate addresses a timely and contentious question for policy, practice, and research. Debate Overview: This debate juxtaposes two strategies for increasing physical activity in school-aged children: whole-school systems approaches that seek to shift policies, environments, and culture, and targeted physical education interventions designed to generate rapid, measurable behaviour change. Drawing on evidence from high-income countries and LMICs, the session critically examines effectiveness, scalability, and equity, highlighting how context may determine which approach offers the greatest public health impact. Affirmative Position: Whole-School Systems Approaches Are More Effective Drawing on studies from Wales and Ireland, the affirmative team will argue that PA behaviours are shaped by geography, ethnicity, school culture, and policy context. Welsh data demonstrate strong neighbourhood and school-level influences on active travel, while findings from the Active School Flag programme in Ireland highlight the complexity of behaviour change even within structured PA initiatives. Collectively, these data support the argument that whole-school, policy-aligned, and systems-oriented approaches are necessary to overcome structural barriers and reduce inequalities. Opposing Position: Targeted PE Interventions Deliver Greater Impact and Scalability Using evidence from India, Kenya, and Colombia, the opposing team will argue that structured PE interventions, such as the CATCH PE programme, can produce large, measurable gains in moderate-to-vigorous physical activity (75–125% increases) within short timeframes. These effects were achieved without whole-school reform, suggesting that well-designed, contextually adapted interventions may be more efficient, scalable, and impactful, particularly in resource-constrained settings. Expected Outcomes / Reflections Participants will: • understand contrasting evidence for system-level vs. targeted approaches • reflect on how context (geography, culture, income level) shapes impact • consider equity implications for school PA interventions • identify appropriate leverage points for different settings • leave with a more nuanced view of school PA strategy design.

SYMPOSIA

6 Oct | Parallel Symposia 2

Australia

Prospective mortality results from the ProPASS longitudinal data resource

AUTHORS

Ahmadi, M.[1], Holtermann, A.[2], Hamer, M.[3], Stamatakis, E.[4], Mitchell, J.[3], Bull, F.[5]

AFFILIATIONS

[1]*University of Monash*
[2]*National Research Centre for the Working Environment*
[3]*University College London*
[4]*University of Sydney*
[5]*World Health Organization*

Purpose: To present the first prospective evidence on associations between device-measured physical behaviours and mortality from the ProPASS Consortium, highlighting the unique harmonised data resource across diverse cohorts, and demonstrating how it advances understanding of dose, patterning, and contextual dynamics of physical activity, sedentary time, and sleep to inform global public health guidelines and policy. Description: The symposium will have a 5-minute introduction by the Chair (Prof Andreas Holtermann) outlining the ProPASS Consortium's aims, device-based initiatives, and contributions from international partners, stakeholders, and research teams. This introduction will set the scene for subsequent presentations on the first prospective health outcomes emerging from the consortium's pooled data resource. Presentation 1 (Prof. Mark Hamer, University College London; 15 mins): Dose response associations between 24 hr physical behaviour and cardiovascular disease Physical activity, sedentary behaviour and sleep – "physical behaviours" – are risk factors for cardiovascular disease (CVD). Our understanding is limited by incomplete evidence from questionnaire-based studies and standalone wearable cohorts with diverse, non-comparable processing. ProPASS used a device-agnostic approach to pool methodologically diverse prospective cohort data to examine dose–response associations between physical behaviours and risk of major adverse cardiovascular events (MACE). Analyses will focus on minimum changes in physical activity needed for clinically meaningful risk reduction that are sustainable and impactful at a population level. Presentation 2 (Prof. Emmanuel Stamatakis, University of Sydney; 15 mins): Associations of micropatterns of physical activity and all-cause and cancer mortality: novel insights from ProPASS The temporal "micropatterns" of daily movement accumulation may provide unique benefits that are associated with lower all-cause and cancer mortality beyond total volume of physical activity. Leveraging ProPASS's pooled resource, this presentation will examine how fine-grained patterns of activity relate prospectively to cancer mortality risk. Particular focus will be placed on identifying clinically meaningful, achievable changes in movement patterning that could inform targeted behavioural interventions and future physical activity guidelines for longevity and cancer prevention. Presentation 3 (Dr. John Mitchell, University College London; 15 mins): Optimising approaches for federated analyses within ProPASS One central challenge within ProPASS is maximising the detailed, harmonised participant-level data provided both through the DataSHIELD federated platform and externally. Initial work has sought to optimise two-stage modelling approaches for combining ProPASS studies. Using simulations involving the pooled resource, these analyses test different fitting procedures and data-availability scenarios to identify an optimal analytic strategy. This talk summarises ongoing work to develop and validate a hybrid approach that combines individual-participant analyses within DataSHIELD with aggregate data from external studies. Prof Fiona Bull will lead an interactive discussion (10 mins) reflecting on the trials and tribulations of developing the ProPASS data resource over the past eight years. The discussion will explore key methodological and logistical lessons in building a large-scale international device-based consortium, including cohort engagement, data harmonisation, governance, and sustainable infrastructure for federated analyses and open science. It will also consider how to position ProPASS as a platform for future collaborations and guideline-relevant evidence, and how the wider community can engage with and contribute to the resource.

Canada

Integrating JEDI and knowledge translation in physical activity surveillance

AUTHORS

Larouche, R.[1], Carr, S.[2], Jáuregui, A.[3], Vanderloo, L.[4], Brazo-Sayavera, J.[5]

AFFILIATIONS

[1]*University of Lethbridge*
[2]*Victoria University of Wellington*
[3]*Instituto Nacional de Salud Pública*
[4]*ParticipACTION*
[5]*Universidad Pablo de Olavide*

Purpose: This symposium explores how to integrate knowledge translation and justice, equity, diversity, and inclusion (JEDI) principles into physical activity surveillance, illustrated by lessons from the Global Adolescent and Child Physical Activity Questionnaire (GAC-PAQ) project. Description: The app-based GAC-PAQ project addresses many limitations of previous physical activity questionnaires. These include omissions of important physical activity domains (e.g., chores, active play); insufficient cultural adaptation for the context of low- and middle-income countries; as well as persistent underrepresentation of children, people with a disability or chronic disease, or living in rural areas, among questionnaire validation studies. Designed to assess physical activity in 8- to 17-year-olds, the GAC-PAQ app includes numerous features to increase accessibility, including multi-language audio narration and country specific examples. The app includes images that represent diversity in child characteristics such as age, gender, ethnicity, and body size. The GAC-PAQ underwent robust content validation studies with global experts and members of the target population. It is currently being validated in 17 low-, middle- and high-income countries with samples of 500 children and adolescents stratified by sex and level of urbanization (i.e., urban/rural). Questionnaires remain the most feasible method for global physical activity surveillance, but the abovementioned issues limit meaningful comparisons within and between countries. Attention to JEDI principles can improve external validity and build research capacity in low- and middle-income countries, specially. Integrated knowledge translation (i.e., co-producing research with knowledge users, tailoring messages to local contexts, planning dissemination and uptake from the start) ensures findings are relevant, accessible, and more likely to inform programs, policies, and future research. Symposium attendees will learn practical strategies for developing integrated knowledge translation plans (e.g., stakeholder engagement, co production, tailored dissemination, and monitoring uptake. Attendees will also learn methods for integrating JEDI principles that enhance the equity and real world impact of physical activity surveillance. This symposium includes opening remarks by the Chair (Dr. Shelby Carr, ISPAH Communications Committee member), three successive 12-minute presentations followed by a 20-minute discussion period. Dr. Richard Larouche (GAC-PAQ Principal Investigator) will discuss the development and testing of the child, adolescent, and parent/guardian versions of the GAC-PAQ across 17 countries. Dr. Alejandra Jáuregui (Principal Investigator for Mexico) will discuss the integration of JEDI principles in GAC-PAQ data collection in Mexico. Dr. Leigh Vanderloo (Scientific Director of ParticipACTION and Primary Knowledge User) will discuss the co-development of the integrated knowledge translation plan and framework of the GAC-PAQ project with input from all participating country investigators. Finally, Dr. Javier Brazo-Sayavera (Principal Investigator for Spain) will moderate the discussion, during which attendees will be invited to ask questions to presenters and to share their perspective regarding inclusion of knowledge translation and JEDI principles in physical activity surveillance.

United States

The Next Decade of Physical Activity Science: Strategic Horizons for JPAH

AUTHORS

Reis, R.[1], Ding Ding, M.[2], Mielke, G.[3]

AFFILIATIONS

[1]*Washington University in Saint Louis*
[2]*The University of Sydney*
[3]*The University of Queensland*

Title: The Next Decade of Physical Activity Science: Strategic Horizons for JPAH Purpose: To present a visionary agenda for the next decade of physical activity (PA) science (toward 2035) and demonstrate how the Journal of Physical Activity and Health (JPAH) will drive this future through new research priorities, rigorous science, innovative publication strategies, and a commitment to equity and cross-sector collaboration that strengthens evidence-based decision-making. Description: As we prepare for the next decade, PA science faces a critical juncture amid emerging global challenges and opportunities. This symposium will outline a forward-looking strategy for the field, addressing urgent issues such as persistent inequities in physical inactivity, the need for climate-resilient active living strategies, and the strengthening of global surveillance of PA behaviors and interventions. JPAH's editorial leadership will share a roadmap for the journal and the field, highlighting priority research areas and novel article types to accelerate discovery and translation. These priorities include advancing methods (e.g., new measurement technologies and implementation science), promoting inclusive research that closes gaps among underrepresented populations, and fostering studies that link PA to broader societal goals (health, sustainability, equity). The session features presentations tackling five grand challenges for the next decade: 1. Inactivity Inequities: Strategies to reduce disparities in PA participation and outcomes, and improved understanding as to how inequalities play out globally across different demographics and regions, ensuring no population is left behind. 2. Physical Activity & Climate Adaptation: Integrating PA promotion with climate action — examining how to maintain active lifestyles amid climate change, how PA (e.g., active transport) can contribute co-benefits to environmental sustainability, and understanding the unintended climate change-related consequences of promoting physical activity. 3. Global Surveillance: Innovations in monitoring worldwide PA trends, inequities, and cost-effective approaches for population-level surveillance, including wearables, spatial and sensory data, and tools. 4. Implementation and scale-up: translating effective interventions from local practice to global policy. This includes leveraging big data and cross-country collaborations (e.g., via the Global Observatory for Physical Activity) to inform decision-making. Advancing methods to understand scalable PA interventions that have not yet been evaluated (e.g., natural experiments, pragmatic trial, and others). 5: Rigorous science, dissemination, and public trust: elevating research quality and interpretive rigor while improving dissemination practices to avoid confusion caused by rapidly emerging contradictory findings to ensure that the public, policymakers, and practitioners can rely on PA science with confidence. Including elevating the lived experiences and community voices to enhance research and practice-based evidence. In this symposium, we will highlight the challenges and opportunities in the aforementioned five areas, the journal's commitments to methodological rigor, diversity, equity, and inclusion in content and editorial decision-making, proactive measures to minimize publication bias, and encouragement of interdisciplinary, cross-sector science. JPAH's strong partnerships with organizations such as ISPAH, GoPA, and others will be highlighted as a platform to unify researchers, practitioners, and policymakers in pursuing this vision. The symposium will consist of concise talks by JPAH's Co-Editors and Deputy Editors, followed by a moderated panel discussion. A dynamic Q&A segment will actively engage the audience

Australia

Physical Activity for People With Disabilities: Furthering Equitable Approaches to GAPPA, Together.

AUTHORS

Sherrington, C.[1], West, K.[2], Tiedemann, A.[1], Purcell, K.[1]

AFFILIATIONS

[1]*University of Sydney*
[2]*Children's Hospital Westmead*

Purpose: To bring together voices from different perspectives to advance the field by sharing solutions and providing clear guidance on what can be done to enhance equity in physical activity participation for people with disabilities. Rationale: People with disabilities face additional barriers to being physically active and are less active compared to those without disabilities. Global experts have developed solutions, however, there are limited opportunities to showcase these and learn from each other to enable more to be achieved together. Brief description: The presenters have extensive experience across roles in the promotion, delivery, participation, advocacy, and research regarding physical activity for people with disabilities. Discussion themes will be structured according to the WHO Global Action Plan on Physical Activity (GAPPA), considering social norms and role models, programs and services, environmental considerations, and policy initiatives. A systems approach will be adopted while focusing on examples of concrete actions undertaken to date and ideas for further actions. The session will involve brief presentations by the chair, Prof. Cathie Sherrington and video content from experts who bring different perspectives. The chair will facilitate discussion with live interviewees and audience members. Cathie's team has undertaken multiple projects on physical activity for people with disabilities, and she is a volunteer leader for sporting organisations for people with disabilities and the parent of a Paralympic athlete with cerebral palsy. Interviewees include - Prof Anne Tiedemann, exercise physiologist and author for the COMEBACK study that successfully used phone coaching from health professionals to support people with difficulty walking to be more active. - Kerry West, physiotherapist, para-swimming classifier, PhD candidate and parent of an athlete with a physical disability, who has extensive experience supporting children with disabilities to participate in sport and recreation. - Kate Purcell, project manager for the PROMOTE study that is supporting health professionals in public hospitals to promote physical activity in daily practice and parent of an athlete with an intellectual disability. Additional brief video content will be included from - Melissa Otterbein Director, Fitness and Healthy Lifestyles, and leads physical activity programming, implementation, and evaluation for Special Olympics International's 256 national and state programs. Growing up with a sister with Down syndrome, her life and career have been dedicated to improving the health of people with intellectual disabilities. - Craig Carscadden, Paralympian and head of development for World Abilitysport who has worked for many years as a coach, advocate, and program manager for sport and physical activity programs for people with physical disabilities; and - Dr. Phil Hamdorf, who has extensive experience in the delivery and oversight of sport and physical activity programs in community and health settings for people with disabilities as well as in senior government roles in sport. Outcomes: Key anticipated outcomes will be concrete actions to physical activity promotion for people with disabilities to guide future collaborations in advancing

Australia

Smoke and mirrors: perspectives on the commercial determinants of physical activity and sport

AUTHORS

Bauman, A.[1], Bauman, A.[2], Kolbe-Alexander, T.[3], Pedersen, C.B.[4], Lambert, E.V.[5]

AFFILIATIONS

[1]*University of Sydney*
[2]*University of Sydney, Australia*
[3]*University of Southern Queensland, Australia*
[4]*University of Southern Denmark*
[5]*University of Capetown, South Africa*

Purpose: to outline a new framework describing the commercial determinants and commercial influences on physical activity and discuss implications for global population efforts to promote physical activity Abstract: This symposium offers an original perspective on commercial determinants, defined as the commercial determinants and influences on physical activity (CDPA). Much has been written about the commercial determinants of tobacco, diet, alcohol use and gambling, but physical activity has not been placed under the same scrutiny. This symposium will be divided into six parts. We will begin with an introduction to the overall commercial determinants of health from the Chair. This will be followed by a presentation proposing an innovative typology and classification system to identify the major themes for physical activity that are subject to commercial influences. The major themes include: [a] the perpetuation of inactive societies, especially through sustained fossil fuels usage and the promotion of small screen time; [b] the large-scale sponsorship of sport and physical activity, often by food, beverage and alcohol corporations; [c] the fitness and wellness industries; [d] direct private sector funding of physical activity programs; and [e] commercial influences on researchers, physical activity science and the interpretation of evidence. These areas are mapped against major commercial determinants themes, including political practices, marketing, financial practices, influences on science, and reputational actions by the commercial sector. These exist within the complex intersectoral nature of physical activity, which means that the commercial determinants of physical activity are more diverse and nuanced than other areas of commercial influences on health. Then presenters will discuss aspects that emanate from the framework, specifically [1] the equity and SDG implications of the commercial determinants of PA; [2] examples of the future research tasks required in understanding the commercial determinants of PA, and [3] the LMIC relevance of CDPA. This will be followed by a short question session, and then an audience participation session of 15 minutes, that involves mentimeter polling, followed by small groups reflecting on specific questions, including [a] what commercial influences might be added to the framework, [b] what additional areas of PA research might be developed using this “commercial determinants lens”, and [c] what are the policy and practice implications – what should be done with a better understanding of commercial determinants of physical activity and mitigating any potential adverse impact of such commercial influences? Structure of symposium: Chair : EVL and intro to CDoH [5 mins] Presenter 1 : AB, intro to CDPA , framework for CDPA, why PA is more complex than CDoH [15 mins] Presenter 2 TKA, equity dimension and SDGs for CDPA [8 mins] Presenter 3 CBP, research tasks in further understanding CDPA [8 mins] Presenter 4 VL [brief presentation VL: LMIC implications of CDPA [5 mins] Questions 4 mins Mentimeter audience polling 5 mins Audience small group discussion in response to specific questions [10 mins] EVL - Vicki Lambert; AB Adrian Bauman; TKA- Tracy Kolbe-Alexander; CBP Christina Bjoerk Petersen

Canada

‘What is in a name?’ Examining terminology for discussing the 24-hour day

AUTHORS

Falck, R.[1], Schipperijn, J.[2], Ding, M.[3], Gradidge, P.[4], Tornberg, Å.[5], Gomersall, S.[6]

AFFILIATIONS

[1]*The University of British Columbia*
[2]*University of Southern Denmark*
[3]*The University of Sydney*
[4]*University of the Witwatersrand*
[5]*Lund University*
[6]*The University of Queensland*

PURPOSE: There is increasing interest in understanding how the 24-hour day influences health. Physical activity, sedentary behaviour, and sleep collectively occupy this full-day cycle and are each associated with key health outcomes. However, the terminology used to describe this behavioural continuum (e.g., “24-hour movement behaviours”, “physical behaviours”, “24-hour activity cycle”) remains inconsistent across disciplines, settings, socioeconomic status, and global contexts. The primary purpose of this symposium is to discuss how current terminology is used, understood, and interpreted across regions, disciplines, and stakeholder groups, and to explore how language shapes research framing, measurement, cross-study comparability, public health messaging, and policy uptake. RATIONALE: The ISPAH 2026 Congress includes “24 Hours” as a core subtheme, underscoring the growing relevance of full-day approaches. Consistent, clear, and culturally sensitive terminology is essential to promote equity, comparability, and effective translation of evidence into public health practice and policy. An interview-style symposium is well suited to this topic. The conversational “talk show” format will enable multidisciplinary experts from different countries to reflect on conceptual and practical experiences with terminology, while actively engaging the audience. This approach is expected to generate nuanced, practice-relevant insights that extend beyond traditional presentation formats. BRIEF DESCRIPTION AND STRUCTURE (60 minutes): • Introduction by Chair/Moderator (10 minutes): Overview of the emerging 24-hour paradigm and current challenges in terminology related to physical activity, sedentary behaviour, and sleep. Dr. Ryan Stanley Falck will moderate the session. He is a research associate at the University of British Columbia and Principal Investigator of the Around the Clock Terminology Consortium, an international initiative focused on developing terminology for the 24-hour cycle of physical activity, sedentary behaviour, and sleep. • Interview Segment (30 minutes): Facilitated discussion with five international experts: 1) Dr Jasper Schipperijn – Professor, Department of Sports Science and Clinical Biomechanics, University of Southern Denmark; 2) Dr. Melody Ding – Professor, Sydney School of Public Health, University of Sydney; 3) Dr. Philippe Gradidge – Professor, Department of Exercise Science and Sports Medicine, University of the Witwatersrand, South Africa; 4) Dr. Åsa B Tornberg – Associate Professor, Department of Health Sciences, Lund University; and 5) Dr. Sjaan Gomersall – Associate Professor, School of Human Movement and Nutrition Sciences, University of Queensland. Topics will include: (1) terminology currently in use and its rationale; (2) conceptual, measurement, and communication strengths/limitations; (3) examples of misunderstanding/misinterpretation; (4) cultural and contextual considerations; and (5) recommendations for terminology that support clarity, inclusivity, comparability, and policy translation. • Audience Q&A and Discussion (20 minutes): Open dialogue with attendees, with moderator-led synthesis of key themes. CONCLUSIONS, REFLECTIONS, OR OUTCOMES: This symposium will: (1) raise awareness of the diversity of terminology used to describe full-day behaviour patterns; (2) identify risks associated with inconsistent language, including barriers to comparability and policy translation; (3) encourage development of more standardized but culturally responsive terminology or reporting guidance; and (4) stimulate broader dialogue on the role of language in advancing equity and global relevance in physical activity and health research.

Ecuador

From Complexity to Regional Action: Co-Creating a Model for Youth Physical Activity in Latin America

AUTHORS

Ochoa, A.[1], Jáuregui, A.[2], Ochoa Avilés, C.[3], García, I.[4], Molina, M.J.[1]

AFFILIATIONS

[1]*Universidad de Cuenca*
[2]*Instituto Nacional de Salud Pública, México*
[3]*Universidad de Cuenca, Ecuador*
[4]*Instituto Nacional de Salud Pública*

Children and adolescents' physical activity (PA) is influenced by social, environmental, cultural, and political factors. We used Group Model Building (GMB) in four Latin American countries to understand these factors. A regional vision is needed to integrate these insights into a framework for collaborative and scalable policies. This symposium presents summarized causal loop diagrams (CLDs) from GMB sessions with stakeholders—parents, adolescents, teachers, government, academia—from four Latin American countries, to explore shared regional dynamics. Each country expert will briefly present their adolescents' PA systems map, highlighting feedback loops, leverage points, and drivers. A synthesis will identify regional patterns regarding gender norms, safety, infrastructure, and governance shaping youth PA in Latin America. Later, in a collaborative workshop, we will co-create a simplified regional model for youth PA by annotating missing elements and suggesting leverage points. By the end, a regional model to guide youth PA policies across settings will be proposed. The goal is to strengthen Latin America's shared vision to promote adolescent PA. Presentation 1-Chile Title: Are school communities in Chile providing enough opportunities for students to be physically active? This presentation summarizes potential causes of limited PA opportunities in schools, from the GMB developed by stakeholders in urban and rural Chile. They emphasized building capacity, valuing PA for children's development, expanding activities, and improving access to infrastructure. Presentation 2-Mexico Title: Gender Inequality and Physical Culture: How System Dynamics Constrain Youth's PA in Mexico This presentation summarizes GMB findings in Mexico, emphasizing how political interests, weak physical culture, gender norms, and normative inconsistencies influence youth activity. It highlights key feedback loops, focusing on Mexico-specific challenges like a shortage of physical education teachers, gender restrictions on girls, and underused public spaces due to insecurity, poor infrastructure, and limited intersectoral coordination. Presentation 3–Ecuador Title: How Design, Safety, and Local Governance Interact: A Co-Created Systems Model of Adolescent Physical Activity in Ecuador This presentation summarizes co-created systems mapping in Cuenca, Ecuador, focusing on how governance, spatial design, community inclusion, and safety influence adolescent use of public spaces. It highlights feedback loops, leverage points, and barriers such as poor maintenance, limited government coordination, lack of activity programming, and safety issues that hinder engagement. Presentation 4–Perú Title: From group modelling to solutions for promoting PA among Peruvian adolescents, perspectives of key actors in urban and rural areas This presentation discusses co-created system-mapping findings on fostering active school environments from the perspectives of stakeholders. It proposes implementing a communication plan, inter-institutional coordination, and school improvement plans to increase PA among urban adolescents. In rural areas, stakeholders recommend strengthening policies, supporting PA from preschool through university and the workplace, and implementing educational plans to reduce screen time. Audience Engagement 1. Cross-model Pattern Detection. Using real-time polling, the audience identifies common loops across countries and important loops in their regions. 2. Co-creation of a Regional Transferable Model: Participants use digital tools to add missing variables and prioritize regional loops 3. Contextualized Intervention Design: Participants identify regional leverage points transferable to all contexts

United States

Tackling grand challenges in physical activity and health: Launch of the inaugural ISPAH-JPAH special issue

AUTHORS

Hallal, P.[1], Stamatakis, E.[2], Mitchell, J.[3], Firth, J.[4], Hallal, P.[5], Gradidge, P.[6]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*
[2]*University of Sydney, Australia*
[3]*University College London (UCL), UK*
[4]*University of Manchester, UK*
[5]*University of Illinois Urbana-Champaign, USA*
[6]*The University of the Witwatersrand*

The primary purpose of the symposium is to launch the inaugural ISPAH-JPAH special issue and present the four included papers, each of which focuses on a priority issue in the current physical activity landscape: (a) inclusion of wearables in physical activity surveillance; (b) over and under adjustment in studies on the health consequences of physical activity; (c) grassroots sports and physical activity; (d) the burden of physical inactivity on mental health outcomes. The session will open with an introduction from one of the series co-leads, Karen Milton (5 mins). We will then have 4 presentations, one on each paper, each lasting 10 mins (40 mins). Following the presentations, there will be time for Q and A, which will be facilitated by one of the series co-leads, Pedro Hallal (15 mins).

SYMPOSIA

8 Oct | Parallel Symposia 4

Mexico

Rebalancing Power in International Physical Activity Research: An Equity-Centred Conversation Across Mexico, Canada, and US

AUTHORS

Jáuregui, A.[1], McGuire-Adams, T.[2], Salvo, D.[3], Jáuregui, E.[4], Argumedo, G.[5], Lévesque, L.[6]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*

[2]*Tier II Canada Research Chair in Indigenous Health Resurgence Director, H.E.A.R.T. Research Lab (Health Education and Resurgence Theory) Associate Professor of Socio-Cultural Studies Faculty of Kinesiology and Physical Education University of Toronto, CANADA*

[3]*Associate Professor of Kinesiology and Health Education Director, Center for Research to Community Impact College of Education, The University of Texas at Austin, USA*

[4]*Associate Professor, Departamento de Ciencias del Movimiento Humano, Educación, Deportes, Recreación y Danza, University of Guadalajara, MEXICO*

[5]*National representative of the UNESCO Chair Global Health & Education in Mexico Research Fellow, Instituto Nacional de Salud Pública, MEXICO*

[6]*Professor, School of Kinesiology and Health Studies Queen's University, CANADA*

Purpose: This interview symposium will explore how equity-centred, anti-colonial, and community-responsive approaches can reshape physical activity research that has historically been dominated by Western biomedical paradigms. Rationale: Physical activity research emerged largely from sport science traditions that privilege biomedical outcomes and Western epistemologies, often marginalizing social meaning, lived experiences, and community priorities. These dynamics are especially pronounced in research conducted in low- and middle-income countries and in Indigenous communities, where externally driven agendas remain common and where international collaborations often exacerbate this status quo. The topic of this proposal is well aligned with the comprehensive equity-focused theme of the ISPAH 2026 Congress and is particularly well suited to an interview symposium format. A conversational, talk-show style panel allows panelists to engage openly with tensions, missteps, and lessons learned—conversations that are often flattened or sanitized in traditional slide-based symposia. Drawing on experiences from a tri-national collaboration across Mexico, Canada, and the United States, the session will highlight how research with Indigenous communities, immigrant and minoritized populations in high- and low-income countries with low to middle-income contexts challenges dominant "helicopter" research models. The exchange will challenge dominant assumptions about "best practices," highlighting transferable lessons across countries and communities. The session is innovative in its explicit interrogation of how physical activity research is produced, whose knowledge counts, and how international and local collaborations can move the field beyond extractive practices toward more reciprocal and relevant science. Brief description: The session will be moderated by two interviewers with extensive experience facilitating equity-focused, international, and community-engaged dialogue in physical activity and public health research. One interviewer (AJM) is a Mexican physical activity researcher embedded in global and local equity initiatives and conference leadership. The second (TMA) is an Anishinaabe scholar who brings an explicit decolonizing and anti-colonial lens grounded in Indigenous and critical scholarship. Interviewees will include researchers from at least three countries (Mexico, Canada, and the United States) and multiple institutions, representing work with groups and communities in Mexico, Indigenous communities, and immigrant and minoritized populations in high-income countries. Collectively, they bring perspectives shaped by lived experience, long-term community partnerships, and reflexive engagement with power, privilege, and positionality in physical activity research. After an introduction by one of the co-chairs about the origins and tensions in physical activity research (10 min) the interview questions will focus on three areas: · Lessons from tri-national collaboration and the limits of Western research models (15 minutes); · What equity-centred and decolonizing practice looks like in action, including technology and intervention design (20 minutes); · Audience-driven reflection and dialogue (15 minutes). Audience interaction will be stimulated through real-time prompts, invitation to challenge panelists' assumptions, and guided questions that encourage participants to reflect on their own research practices and contexts. Conclusions, Reflections or Outcomes: The co-chair will close by summarizing key take-aways, encouraging participants to critically examine their own practices to operationalize equity-centred and decolonizing approaches for conducting ethical, and contextually responsive physical activity research across diverse settings.

United States

PAHO Symposium: From Evidence to Action: Scaling Physical Activity Policies and Programmes in the Americas

AUTHORS

Macholz, A.[1], Garcia-Larsen, V.[2], Vejar Renteria, L.S.[2]

AFFILIATIONS

[1]*Johns Hopkins Bloomberg School of Public Health*

[2]*Pan American Health Organization*

Purpose: Physical inactivity remains a major contributor to noncommunicable diseases (NCDs) and premature mortality in the Region of the Americas. Despite WHO- and PAHO-promoted evidence-based “best buys”, implementation and scale-up remain uneven, hindered by limited institutional capacity, fragmented multisectoral coordination, insufficient financing, and weak monitoring systems. This symposium showcases actionable Regional evidence to support practical implementation, accelerate uptake of interventions, and strengthen cross-country learning, helping decision-makers advance physical activity policies with high health and economic returns. Presentations: Regional Roadmap to Implement Physical Activity Guidelines in the Americas (Dr. Vanessa Garcia-Larsen, PhD, PAHO) Building on a 20-country workshop and aligned with WHO’s Global Action Plan on Physical Activity and PHC toolkit, PAHO’s Regional Roadmap helps countries integrate physical activity interventions through primary health care. It offers a six-stage pathway: readiness assessment and intersectoral coordination, protocol adaptation, integration into NCD programs and information systems, workforce training, and institutionalization through policy and routine monitoring. Investing in Physical Activity: Returns and Health System Savings from Scaling Interventions (Alexandra Macholz, MPH, Johns Hopkins Bloomberg School of Public Health) PAHO is generating economic evidence quantifying return on investment and value of scaling up cost-effective physical activity interventions across the Americas by estimating healthcare costs attributable to physical inactivity and projecting economic gains from expanding implementation of two WHO-recommended interventions—primary healthcare counselling and communication campaigns. Results guide decision-makers on high-impact opportunities and strengthen the case for scaling physical activity interventions. Physical Activity in Schools - Progress and Opportunities (Lesly Vejar Renteria, MSc, PAHO) The Regional Guidance on Healthy Eating and Physical Activity Policies in School Settings (PASAFE) helps countries strengthen policies for healthier school environments. It provides a framework for designing, implementing, and monitoring comprehensive interventions addressing healthy eating and physical activity through a systems-based approach, supporting policy alignment, intersectoral collaboration, and early life obesity and NCD prevention.

United Kingdom

Global Innovations for Inclusive Active Ageing: Scalable Strategies Across Diverse Communities

AUTHORS

Stathi, A.[1], Tiedemann, A.[2], De la Vega-Taboada, E.[3], King, A.[4], Lambert, V.[5]

AFFILIATIONS

[1]*University of Birmingham*
[2]*The University of Sydney, Australia*
[3]*Florida State University, USA*
[4]*Stanford University School of Medicine, USA*
[5]*University of Cape Town, South Africa*

PURPOSE This symposium brings leading experts from North and South America, Australia, Europe, and Africa to showcase global innovations in promoting active ageing. It highlights evidence on scalable, theory-driven community programs designed to reach ethnically, socioeconomically, and geographically diverse populations often underrepresented in physical activity (PA) research. Presentations will illustrate inclusive delivery models—from peer-led engagement to digital coaching—and explore implementation challenges and opportunities for equitable adoption worldwide. Interactive presentation strategies, including audience polls, will foster dialogue on how these approaches can inform inclusive policy and practice across diverse global contexts. DESCRIPTION 1. Prof Afroditi Stathi, Chair, will introduce the symposium objectives and four presenters (5 mins). 2. Prof Anne Tiedemann's presentation: the Active Women over 50 trial, an ongoing hybrid effectiveness-implementation RCT testing an online, 6-month PA behaviour change program compared to a waitlist control among 1000 women aged 50+. The intervention includes telehealth coaching sessions, behaviour-change messaging, resources accessed via a dedicated website, and a private Facebook group. 780 (mean age 61) out of the target 1000 participants have been randomised to date. Preliminary data will be presented including participant motivations for signing up, and engagement with the intervention components. (10 mins) 3. Dr. Eduardo De la Vega-Taboada's presentation: the Adolescent-Led Improvements to Walkability and Active-Aging Environments, a Citizen Science project in an underserved Colombian community where adolescents (n=11) applied participatory methods to identify health barriers and advocate for environmental improvements. Their efforts led to paved streets, improved walkability, and upgraded neighbourhood parks including outdoor exercise equipment for older adults. Adolescents' sense of agency increased significantly (paired-samples t-test, p=0.033; Cohen's d=0.94), indicating meaningful gains despite the small sample. Results underscore the potential of multi-level interventions to create PA-supportive environments for all. (10mins) 4. Prof Abby King's presentation: the Steps-for-Change cluster-randomized trial testing the effectiveness of a 12-month multilevel walking intervention combining a behavioural PA program with Our Voice citizen science versus behavioural PA plus health education (control). Inactive, ethnically diverse older adults (N=300) from 10 California senior public housing sites were randomized by site. Both arms increased 12-month weekly walking by >60 minutes, but Our Voice participants achieved a 54% increase versus 34.7% in controls and created 33 PA-enabling environmental/policy actions (controls=0). 12- and 24-month outcomes for PA, wellbeing, and environmental change will be discussed. (10 mins) 5. Prof Afroditi Stathi's presentation: the Active, Connected, Engaged [ACE] trial, a two-arm pragmatic RCT (n=528; mean age 77.5), which evaluated a six-month peer-volunteer-led intervention to promote physical and social activity among people at risk of mobility disability (SPPB 4–9). Participants were randomized to ACE or control across four UK sites. At 18 months, ACE delivered clinically meaningful improvements in lower limb function (SPPB-adjusted mean difference 0.6; 95% CI: 0.2–1.0; p=0.005). Mobilizing peer volunteers offers a scalable approach to sustain physical function and promote active ageing in community settings. (10mins) 6. Prof Vicki Lambert will lead a discussion focussing on implementation challenges and opportunities for cross-country learning to accelerate adoption of effective strategies for inclusive active ageing. (15 mins)

United Kingdom

Our Story of Movement: A Provocative Call to Advance Physical Activity Research, Policy and Practice

AUTHORS

Piggin, J.[1], Matias, T.[2], Karloh, M.[3], Hawes, O.[4], Flemons, M.[4]

AFFILIATIONS

[1]*Loughborough University*
[2]*Federal University of Santa Catarina, Brazil*
[3]*Santa Catarina State University*
[4]*University of Bedfordshire*

Purpose: This symposium will present three recent publications which encourage us all to think very differently about how physical activity is being promoted by governments, health agencies, corporations, and academics. It challenges accepted truths in health promotion through rigorous analysis, and will provoke the global audience to consider the (sometimes fragile) foundations that influence our ideas about "good practice". We challenge traditional approaches and present innovative methods that create new opportunities for people everywhere to feel, explore, transform, and connect through physical activity. This might mean transgressing against accepted ways of doing things, but it is through innovation, creativity and border crossings that real progress can be made. The three talks will be followed by 30-minutes of discussion time for the audience to offer their reactions, their reflections and their own re-imaginings for possibilities to act differently in their own roles. A provocative PPT series will accompany the speakers, and help inspire reactions and responses. Description: The three talks will focus on recent publications that explore very different ways of thinking about physical activity. Chairperson – Joe Piggin, (Loughborough University, UK) 1. Thiago Matias (Federal University of Santa Catarina, Brazil) and Manuela Karloh (Santa Catarina State University): The Unifying Theory of Physical Activity – 10 mins In this Theory we challenge conventional behaviour centred views by foregrounding physical activity urges – to feel, explore, transform, and connect – as fundamental drivers of human movement. Embracing this lens helps researchers rethink participation, recognise embodied meaning, and learn to design more authentic, human centred approaches that reshape how physical activity and health are understood. A case study is used to show how this Theory is being applied to ground-breaking rehabilitation research and practice in Brazil. 2. Olivia Hawes (University of Bedfordshire, UK) and Michelle Flemons (University of Bedfordshire, UK): Rethinking Health Implications of Purposeful Physical (In)Activity, Stillness, and Rest – 10 mins In this research, we challenge the traditional view that physical activity is always "good" and inactivity is always "bad." Instead, we argue for a more holistic perspective that recognises rest and stillness as vital for well-being, recovery, creativity, and human flourishing. We take away that; (1) health is not just about moving more, it's also about appreciating the value of rest, (2) stillness can be socially active, mentally restorative, and essential for caring for ourselves and others, and (3) public health messages should move away from stigmatising inactivity and toward promoting balance across a dynamic continuum of human movement. 3. Joe Piggin (Loughborough University, UK): Reflections on inaction: how might we reverse continuing trends in physical inactivity This talk challenges the status quo of policy intervention logic, and considers the reconceptualisations that are required to make change to population activity. These include a radical redistribution of wealth, a radical redistribution of time, and a re-imagining of what physical activity is, both in academic research and health promotion practice.

LONG ORALS

6 Oct | Governance, policy, and systems innovation for active societies

Session Chair: Adrian Bauman

United States

A Content Analysis of Physical Activity and Priority Climate Action Plans across U.S. States

AUTHORS

Franco Silva, M.[1], Gierbolini-Rivera, R.[1], Wang, Y.[1], de Paula da Silva, A.A.[1], Eyler, A.[1], Salvo, D.[2], Siqueira Reis, R.[1]

AFFILIATIONS

[1]*Washington University in St. Louis*
[2]*The University of Texas at Austin*

Background Climate change and physical inactivity are urgent public health challenges with intersecting effects on health, environmental sustainability, and community resilience. Physical Activity Plans (PAPs) and Priority Climate Action Plans (PCAPs) provide strategic frameworks for advancing both agendas. This study aimed to identify opportunities to leverage physical activity as a strategy for climate mitigation and adaptation and to recommend coordinated actions for policy and practice. Methods We conducted a directed content analysis of PAPs and PCAPs. Using NVivo (version 14), we extracted elements of plans, such as goals, objectives, strategies, sectors, implementing agencies, and year of implementation, and systematically assessed cross-plan connections. The connections were then categorized by unifying themes and analyzed to determine whether physical activity contributed to mitigation, adaptation, or both. Results Analysis of 25 state-level PAPs and PCAPs revealed multiple pathways through which physical activity can contribute to climate goals, including active transportation, green infrastructure, energy-efficient spaces, dissemination efforts, and the creation of safe and inviting public spaces. Despite clear opportunities for co-benefits between health and climate, significant gaps remain. Among these are the absence of shared goals and coordinated strategies across PAPs and PCAPs, as well as inconsistent integration of equity and community engagement in plan development. Conclusion These findings underscore the potential of integrated, cross-sectoral strategies to advance both public health and climate resilience. Embedding equity and community participation in future PAPs and PCAPs and aligning federal policies with state policies is crucial for bridging gaps, maximizing co-benefits, and promoting socially just and sustainable outcomes. Keywords Climate resilience, active living, policy analysis, adaptation, mitigation.



Colombia

Policy and governance lessons for physical activity promotion in The Americas

AUTHORS

Mejía-Grueso, J.[1], Pratt, M.[2], Spence, J.C.[3], Bauman, A.[4], Hallal, P.C.[5], Ramírez Varela, A.[6]

AFFILIATIONS

[1]*Global Observatory for Physical Activity - GoPA!*

[2]*Herbert Wertheim School of Public Health and Human Longevity Science, University of California San Diego, San Diego, USA*

[3]*Faculty of Kinesiology, Sport, and Recreation, University of Alberta, Edmonton, AB, Canada*

[4]*School of Public Health, The University of Sydney, Sydney, Australia*

[5]*Department of Health and Kinesiology, University of Illinois Urbana-Champaign, Urbana, USA*

[6]*Department of Epidemiology, School of Public Health; Department of Pediatrics, McGovern Medical School; Center for Health Promotion and Prevention Research; Institute for Implementation Science; The University of Texas Health Science Center at Houston (UTHealth Houston), Houston, TX, USA*

Background: Addressing physical inactivity requires coordinated action across multiple government sectors. While many countries in The Americas have adopted physical activity policies and plans, governance arrangements to support multisectoral implementation vary. Purpose: To examine how policy and governance structures influence multisectoral physical activity promotion in The Americas. Methods: A comparative policy synthesis was conducted using evidence drawn from the Global Observatory for Physical Activity (GoPA!) Country Cards, Policy Directory, INTEGRATE-PA-Pol project, and national policy documents. The analysis included countries in The Americas (Brazil, Canada, Colombia, Costa Rica, Ecuador, Mexico, and the United States), representing diverse political systems and approaches to physical activity promotion. Information was examined across national policy/plans, lead sectors, interagency coordination mechanisms, implementation approaches, and funding allocation. Results: All seven countries had national plans or policy frameworks engaging multiple sectors; however, interagency coordination and implementation capacity varied. Colombia and Costa Rica showed more structured intersectoral arrangements to support coordination, while Ecuador and Mexico reflected more fragmented or sector-specific approaches. Brazil commonly integrated physical activity within broader health-promotion strategies, but coordination and continuity were vulnerable to shifting political priorities. Canada and the United States demonstrated hybrid arrangements, with formal national frameworks and decentralization of implementation. Across countries, recurrent challenges included gaps between policy intent and action, limited accountability mechanisms, and dependence on short-term or fragmented funding. Conclusions: Government commitment to physical activity promotion is widespread in The Americas, but effective implementation depends on governance structures that support coordination, continuity, and resourcing across sectors. National policies alone are insufficient without clear roles and implementation mechanisms. Implications for Policy and Practice: Strengthening interagency coordination, embedding physical activity objectives within broader government planning processes, and developing sustainable financing mechanisms may enhance the impact and durability of physical activity policies. Comparative insights can support countries in adapting governance approaches to their contexts.

Canada

Conceptualizing Active Aging through an Indigenous Cultural Framework: An analysis of the Indigenous Peoples Survey

AUTHORS

Lee, N.[1], Dogra, S.[1], Bouchard, D.[2]

AFFILIATIONS

[1]*Ontario Tech University*
[2]*University of New Brunswick*

Background: Active aging is often conceptualized through Western frameworks emphasizing individual behaviour change, which may not reflect Indigenous understandings of health. Purpose: To understand contributions of social, cultural, and environmental factors that influence active aging in Indigenous older adults in Canada using the Indigenous Peoples Survey (IPS). Methods: Guided by the First Nations Regional Health Survey Cultural Framework, we analyzed data from Indigenous adults aged 55 and older (n=5,727) from the IPS. Active aging was defined as participation in harvesting, handcrafting, or other Indigenous cultural activities in the past year. Social factors included a sense of belonging to the local community. Cultural factors included Residential School attendance and feelings about one's Indigenous identity. Environmental factors included perceived neighbourhood safety and housing quality. Descriptive statistics were computed by sex, and preliminary associations were examined. Sex and age differences will be explored in future regression models. Results: The average age of the sample was 65 years (n=3,231 females). Active aging was positively associated with sense of belonging (social; $r=0.09$, $p<0.001$) and connection to identity (cultural; $r=0.10$, $p<0.001$). Residential School attendance was negatively associated with active aging ($r= -0.08$, $p=0.009$). Environmental factors, including perceived neighbourhood safety ($r=0.09$, $p<0.001$) and housing quality ($r=0.11$, $p<0.001$), were also positively correlated with active aging. Effect sizes were small, but significant. Conclusions: Active aging among Indigenous older adults is associated with social, cultural, and environmental conditions that seem equivalent. This suggests that active aging is not driven solely by individual behaviour, but by a broader set of contextual factors that warrant further examination. Implications for Policy and Practice: The findings highlight the need for Indigenous older adult programming that considers wholistic definitions of active aging and provides culturally relevant and socially stimulating activities in safe environments. Funding: This work is funded by CIHR.

United States

Enabling and Constraining Factors for Park Access Policy Adoption in U.S. Cities

AUTHORS

Hughey, M.[1], Zeidler, H.[2], Stewart, K.[2], Leake, L.[3], Yip, J.[4], Friedmann, V.[4]

AFFILIATIONS

[1]*College of Charleston*

[2]*Riley Center for Livable Communities, College of Charleston*

[3]*Center for Applied Research & Evaluation, University of South Carolina*

[4]*Trust for Public Land*

Background: Parks promote physical activity and are especially important in neighborhoods that are more dependent on free or low-cost resources. Research has established correlates of park use and park-based physical activity; however, fewer studies have explored upstream policy determinants. Purpose: To examine the supportive factors and barriers municipal staff experience during park access policy adoption. Methods: Semi-structured interviews were conducted with staff in 18 U.S. cities. Using the transcribed interviews, three trained researchers developed, refined, and agreed upon a codebook under the broad umbrella of supportive and challenging policy adoption factors. Themes that represented the coded data were generated, with illustrative quotes selected to represent themes. Results: Researchers conducted a total of 20 interviews across 18 cities, including individual (n=14) and small group interviews (n=6). A total of 27 city government staff were interviewed, with the majority (78%) representing parks departments. City staff reported dedicated public funding, land use development, and park needs assessments as the most effective policies for increasing park access. Three support themes emerged for each of these policy areas: political will, cross-sector partnerships, and community engagement. Additionally, for adopting public funding policies, prior success and accountability was cited as highly important. Themes for policy adoption challenges were specific to each policy area. For public funding, competing financial needs for the city and tax burden were challenges, while administrative workload, working with developers, and timing and amount of fees were land use development policy adoption challenges. Conclusions: The identified supports and challenges for policy adoption may help cities create structural, long-term solutions for equitable park access. Implications for Policy & Practice: Practical guides and communications to help train staff to maximize support and minimize challenges may help more cities adopt key policies to increase park access.

Funding: Research was supported by Trust for Public Land.

Ireland

Using IMPAQTs list of Best Practice Exemplars to benchmark implementation of public physical activity policies

AUTHORS

Garcia Bengoechea, E.[1], Volf, K.[2], Jankauskienė, R.[3], Kustra, W.[4], Barrero, A.[2], Van Hoye, A.[2], Bacevičienė, M.[3], Gobis, A.[4], Wachnicka, J.[4], Żukowska, J.[4], Heuvelman, F.[5], Den Braver, N.R.[6], Birkholz, L.[7], Messing, S.[7], Laszlo, P.[8], Sandu, P.[8], Woods, C.[2]

AFFILIATIONS

[1]*University of Limerick*

[2]*Department of Physical Education and Sport Sciences, Physical Activity for Health Research Centre, Health Research Institute, University of Limerick, Limerick, Ireland*

[3]*Health Research and Innovation Science Centre, Klaipėda University, Klaipėda, Lithuania*

[4]*Faculty of Civil and Environmental Engineering, Gdansk University of Technology, Gdansk, Poland*

[5]*Department of Epidemiology and Data Science, Amsterdam University Medical Center, Amsterdam; Upstream Team, Amsterdam, Netherlands*

[6]*Department of Epidemiology and Data Science, Amsterdam University Medical Center, Amsterdam; Upstream Team, Amsterdam Netherlands*

[7]*Department of Sport Science and Sport, Friedrich-Alexander University of Erlangen-Nürnberg, Erlangen, Germany*

[8]*Department of Public Health, University Babes-Bolyai, Cluj-Napoca, Romania*

Background: A strong policy framework underlies interventions, actions, and strategies that have the potential to increase physical activity (PA) at the population level. The 'IMproving Physical Activity policies and their impact on health eQuiTy' (IMPAQT) project aims to strengthen PA policymaking by undertaking policy implementation assessment and benchmarking. To enable benchmarking, Best Practice Exemplars (BPEs) are required. BPEs are concise, informative descriptions of PA policies and their implementation in different countries globally. The BPEs map onto the 45 indicators of the Physical Activity Environment Policy Index (PA-EPI), a tool that IMPAQT uses to assess policy implementation across six European countries. Purpose: To draw policy-relevant lessons and conclusions from the exemplars identified. Methods: BPE sourcing was undertaken using several complementary methods: searches of scientific or policy literature, internet keyword searches, consultation with topic experts or accessing targeted websites. Appraisal was carried out by the IMPAQT Steering Committee and researchers, considering fit to the indicator description and evidence of impact, equity consideration, reach or adoption, and sustained funding. Results: Over 80 BPEs covering all 45 PA-EPI indicators have been identified so far. These span over 25 countries and include instances from both national and subnational levels of government from which lessons can be drawn using the components of the PA-EPI tool as an organizing framework. Conclusions: Although still limited in terms of geographical distribution, amount of information that can be used for the purposes of benchmarking, and the evidence available, BPEs currently represent high standards of PA policy expected to evolve over time. Implications for Policy and Practice: IMPAQTs work in compiling and disseminating BPEs will promote learning for both researchers and policymakers by showcasing best practice and promoting high standards of PA policy, particularly if updated regularly. Funding: ERA4Health (GA N° 101095426 of the EU Horizon Europe Research and Innovation Programme).

United States

Ambition versus action: Are active transport and health delivered through climate action plans?

AUTHORS

Sallis, J.[1], Carson, J.[2], Kedar, V.[3], Heaney, A.[2], Sallis, J.[2], Adlakha, D.[3]

AFFILIATIONS

[1]*UC San Diego*
[2]*University of California San Diego*
[3]*Delft University of Technology*

Cities are central to the climate crisis and its health consequences. Urban areas generate the majority of global greenhouse gas emissions, while urban populations increasingly experience heat stress, air pollution, physical inactivity, and widening health inequities. Achieving the Paris Agreement target of limiting warming to 1.5°C requires emissions to decline by 45% by 2030 and reach net-zero by 2050. In response, cities worldwide have adopted Climate Action Plans (CAPs). Yet despite their potential to deliver co-benefits for health, physical activity, and equity, CAPs have produced limited measurable progress, and systematic evaluation of their impact remains underdeveloped. This project addresses this gap by developing a novel transdisciplinary methodology to evaluate CAPs through an integrated climate–health lens. Drawing on Intergovernmental Panel on Climate Change (IPCC) guidance and quantitative policy analysis, the measure assesses how well CAPs align targets with actions, implementation mechanisms, monitoring indicators, and budgetary commitments across sectors with direct health relevance, such as transport, land use, housing, and energy. A preliminary analysis of 14 CAPs in 13 countries reveals substantial gaps between ambition and action. While some cities present coherent, actionable plans with measurable, resourced objectives, many remain largely aspirational or fragmented, with weak links between priority areas, interventions, and tracking mechanisms. All 14 CAPs included active transportation actions, but specificity varied widely and was not patterned by climate risk or socioeconomic position. Higher-quality actions in cities like Singapore included GHG reduction targets, timelines, assigned ownership, and funding, compared to vague goals in London. These findings provide critical insights into cities' readiness to implement climate action that delivers health and physical activity co-benefits. By identifying common weaknesses and promising practices, this work lays the foundation for strengthening climate policies as instruments for healthier, more equitable, and more active cities—an essential priority for public health in the coming decades.

Ireland

Building blocks of equity in physical activity policy: Learnings from six EU member states

AUTHORS

Messing, S.[1], Birkholz, L.[2], Tcymbal, A.[2], Heuvelman, F.[3], den Braver, N.[3], Abu-Omar, K.[2], Volf, K.[4], Sandu, P.[5], Peter, L.[5], Zukowska, J.[6], Wachnicka, J.[6], Jankauskienė, R.[7], Bacevičienė, M.[7]

AFFILIATIONS

[1]*Physical Activity for Health Research Centre, Health Research Institute, Department of Physical Education and Sport Sciences, University of Limerick*

[2]*FAU Erlangen-Nürnberg, Division Physical Activity & Health*

[3]*Amsterdam UMC*

[4]*University of Limerick*

[5]*University Babes-Bolyai*

[6]*Gdańsk University of Technology*

[7]*Klaipeda University*

Background Public policies play a crucial role in shaping environments that support physical activity. Yet, despite growing recognition of equity as a core principle in PA promotion, policies do not consistently reduce socioeconomic inequities. Consequently, there is a need to provide guidance on how equity can be systematically embedded in physical activity policy. Purpose This study aimed to compare current practice of addressing equity in physical activity policy across 6 EU member states. Methods This study followed a multi-step process informed by the Physical Activity Environment Policy Index (PA-EPI) framework, including (1) a systematic review on the impact of public policy on socioeconomic equity in physical activity, (2) targeted online searches for additional studies and policy documents, and (3) expert workshops. This process resulted in 53 indicators of good practice for promoting equity in physical activity policy that were subsequently grouped into ‘building blocks’. Building on this conceptual work, an empirical assessment was conducted using a structured questionnaire completed by PA-EPI research teams in Ireland, the Netherlands, Germany, Poland, Lithuania, and Romania. Results The synthesis of scientific and policy evidence led to eight ‘building blocks’ of equity in physical activity policy: (1) political commitment, (2) inclusive policy and programme design, (3) special focus on disadvantaged communities, (4) targeted funding, (5) participation and empowerment, (6) inclusive workforce, (7) accessible and inclusive communication, and (8) monitoring and accountability. The empirical data from six EU countries reveal similarities and differences in how equity is addressed. Conclusions This study provides guidance on equity in physical activity policy and offers a comparative analysis across six EU Member States. Implications for Policy and Practice The combined insights deliver practical guidance for strengthening equity considerations in physical activity policy. Funding ERA4Health Partnership (GA N° 101095426)

United Kingdom

National Physical Activity Surveillance Informing Place-Based Public Investment

AUTHORS

Mann, S.[1], Bernstein, E.[2]

AFFILIATIONS

[1]*4GLOBAL*
[2]*Sport England*

Background National physical activity systems increasingly rely on surveillance infrastructures to monitor participation, identify inequalities, and support evidence-informed decision-making. While many countries collect participation data, fewer have integrated national systems capable of informing place-based investment decisions and providing assurance over the use of public funds. Purpose To examine how a national participation surveillance system has been used to justify, target, and evaluate major public investments in sport and physical activity, and to identify transferable lessons for surveillance-led system development in other national contexts. Methods We analysed outputs from a national surveillance platform integrating longitudinal participation, demographic, facility utilisation, spatial deprivation, and social value data across more than 1,400 public leisure facilities in England (April 2023–March 2025). Outputs were examined in relation to three national investment programmes to assess how standardised evidence supported investment justification, risk management, monitoring, and impact assessment across policy and delivery settings. Results Surveillance outputs informed and evaluated over £435 million in public investment, including the National Leisure Recovery Fund (£105m), the Swimming Pool Support Fund (£80m), and the Place Investment Areas programme (£250m). Analyses identified persistent inequalities by socioeconomic status, age, and gender, enabling targeted allocation of resources to areas of greatest need. Standardised metrics supported longitudinal monitoring of participation trends, facility performance, and social value outcomes, strengthening transparency, comparability, and accountability in investment decisions. These outputs were routinely used to support funding decisions, programme assurance, and ongoing investment oversight. Conclusions Integrated national surveillance systems can function as strategic infrastructure, enabling evidence-informed, equity-oriented investment decisions by increasing confidence, accountability, and transparency in the stewardship of public funds. Implications for Policy and Practice Embedding integrated surveillance within national sport and physical activity systems can strengthen investment assurance, improve equity-focused targeting, and support adaptive, data-driven decision-making across diverse contexts and governance structures. Funding Sport England

LONG ORALS

6 Oct | Advancing active living through environmental and urban design

Session Chair: James Sallis

United Kingdom

"MoveScape": Informing Active Landscape Planning to Improve Physical Activity and Well-Being

AUTHORS

Hawes, O.[1]

AFFILIATIONS

[1]*University of Bedfordshire*

Background: The purposeful design of environments built for meaningful physical activity experiences is underexplored. Development policies and regulations often overlook community involvement in active landscape design for enhanced physical activity engagement. This article addresses this gap by presenting findings from "MoveScape"-an academic-industry collaboration using participatory methods to explore the quality and meaningfulness of physical activity experiences to inform active landscape design that support physical literacy and community well-being. Methods: Based at a new housing development in the East of England, 4 focus group workshops (N = 26, 33-68 y, 73% male) employed elements of appreciative inquiry, and invited local residents to explore meaningful physical activity, physical literacy, and neighborhood perceptions. Participants shared and envisioned physical activity experiences around their community. Reflexive thematic analysis was used to code and categorize data. Results: Eight themes were developed; (1) "safety and security"; (2) "sense of belonging"; (3) "attractive, eco-friendly, and aesthetically pleasing spaces"; (4) "inclusive, diverse and accessible spaces"; (5) "sustainable and durable spaces"; (6) "health considerations"; (7) "social interactions"; and (8) "valued spending." Conclusion: Key recommendations for active landscape design, include prioritizing safety and security through better lighting and well-maintained environments, fostering a sense of belonging by designing inclusive, multigenerational spaces that encourage social interaction, and ensuring accessibility for diverse needs. Sustainable and aesthetically pleasing landscapes support long-term engagement. Key recommendations relate to embedding community voice and participatory methods in the active landscape design process to enhance meaningful physical activity through community investment, cultural identity, and long-term usability.

United States

Commuting and Leisure-time Physical Activity in the city of São Paulo: An Intersectional Analysis.

AUTHORS

Stefano Goulardins, G.[1], Rodrigues Curi Hallal, P.[2], Pignatti Teixeira, I.[3], Mitie Onita, B.[4], Dias Santana, D.[4], Antonio Florindo, A.[5]

AFFILIATIONS

[1]*School of Public Health - University of São Paulo (USP) and University of Illinois Urbana-Champaign*

[2]*University of Illinois Urbana-Champaign*

[3]*State University of Minas Gerais (UEMG)*

[4]*School of Arts, Sciences, and Humanities - University of São Paulo (USP) and Epidemiological Studies and Research Group on Physical Activity and Health (GEPAF-USP)*

[5]*School of Arts, Sciences, and Humanities - University of São Paulo (USP) and Epidemiological Studies and Research Group on Physical Activity and Health (GEPAF-USP) and School of Public Health - University of São Paulo (USP)*

Background: Physical activity (PA) is crucial for public health, and its domains interact significantly with several sociodemographic characteristics. Purpose: To evaluate the association between active commuting and leisure-time PA over 10 years, through the lens of intersectionality. Methods: This prospective cohort study (ISA – PA and Environment) followed adults in São Paulo, Brazil, across three waves (2014–2024; baseline n=4,042). Active commuting (independent variable) was dichotomized as minimum practice (≥10 min/week). Leisure-time PA (dependent variable) was dichotomized as minimum practice (≥10 min/week) and meeting recommendations (≥150 min/week), both assessed via IPAQ. Using the Multiple Jeopardy framework, a cumulative sociodemographic vulnerability score was created based on sex, race/skin color, and education, with scores ranging from 0 (lower vulnerability) to 4 (higher vulnerability). Data were analyzed using Generalized Estimating Equations, adjusted for age and region. Results: Active commuting was positively associated with minimum leisure-time PA (IRR=1.31; 95%CI:1.08-1.58) and meeting recommendations (IRR=1.42; 95%CI:1.08-1.85). The Multiple Jeopardy index showed that greater intersectional vulnerabilities reduce these practices. Marginal effects analysis revealed profound inequality: while active commuting consistently favors minimum practice across social strata, its effect on achieving 150 min/week drops abruptly. The probability increases plummeted from +13.8 percentage points (p.p.) in the lower vulnerable groups to +2.0 p.p. (non-significant) in those facing greatest inequity. Additionally, a non-linear dose-response showed initial active commuting volumes to rapidly induce leisure PA, plateauing at higher volumes. A complete-case sensitivity analysis (n=937) corroborated these main findings. Conclusions: Active commuting acts as an important catalyst for engaging in leisure-time PA. However, it can act as a barrier to meeting recommendations among the most vulnerable group. Practical implications: Public health interventions and urban mobility policies must account for inequities, ensuring the benefits of active transportation are equitable and targeted at those in greatest need. Support: FAPESP: 2017/17049-3; CNPq: 309301/2020-3 and CAPES - 001.

Mexico

Children's Use of Public Open Spaces and Inclusion in Planning for Physical Activity in Low-Income

AUTHORS

Tercero-Gómez, F.[1], Hernández-Alcaraz, C.[2], Jáuregui, A.[2], Salvo, D.[3]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*
[2]*National Institute of Public Health*
[3]*University of Texas at Austin*

Background Children are frequently overlooked in decision-making, despite the potential of inclusive child-friendly environments can foster active lifestyles and support health throughout the life course. In low- and middle-income countries such as Mexico, there is limited evidence on how children from low-income urban peripheries use public open spaces (POS) for physical activity (PA) and the extent to which their perspectives are incorporated into local planning and governance of these spaces. Objective To describe the use of POS for PA among children under 12 years of age in low-income urban areas in Mexico, and to assess their inclusion in the decision-making processes regarding these spaces. Methods This mixed-methods research will use data collected from February to June 2026 in thirty peripheral neighborhoods across five Mexican cities. POS use will be documented using the System for Observing Play and Recreation in Communities (SOPARC). Children´s inclusion in the planning and programming of POS will be assessed through surveys and questionnaires administered to community leaders, and local non-governmental and governmental representatives. Survey data will be analyzed to characterize current participatory practices. Results Preliminary baseline data will describe patterns of children's use of POS for PA, by age and sex. Results will also document the extent to which children are currently considered in the planning and programming of these spaces. Conclusions: This study will generate empirical evidence on how children engage with POS for PA and the degree to which they are considered in decision-making processes in low-income peripheral urban areas in Mexico. Implications for Policy Findings will help identify structural barriers to children's inclusion in urban PA governance and may inform policymakers by underscoring the need to explicitly integrate their perspectives into the planning and management of POS. Funding: National Institute on Minority Health and Health Disparities, Award Number 3R01MD019155-02S1

United States

Adapting 1000 Cities Challenge methods for evaluating active living policies in United States cities

AUTHORS

Johnson, A.[1], Johnson, A.[1], Carson, J.[2], Roke, M.[1], Crist, K.[1]

AFFILIATIONS

[1]*San Diego State University*
[2]*University of California San Diego*

Background Built and policy environments strongly influence health. The Global Observatory of Healthy and Sustainable Cities (GOHSC) 1000 Cities Challenge evaluates policy indicators facilitating global comparisons on health and sustainability factors. However, the complex governance structure of United States (US) cities (e.g., overlapping jurisdictions and decentralized governing bodies) presents challenges for standardized policy evaluation. Purpose To present adaptations and lessons learned when applying GOHSC methods to a US city. Methods Four trained, local researchers systematically collected publicly available policy documents for San Diego County, California, US. Documents were identified based on alignment with GOHSC checklist topics (e.g., land use, transportation, climate resilience). Results Challenges included reconciling the GOHSC checklist's broad global design with the US's multilevel governance (city, county, state, federal) and decentralized governing bodies (e.g., classifying government level based on GOHSC-provided categories). Additionally, significant background knowledge was needed to determine policies to include while accounting for 1) relevance to checklist indicators; 2) multiple jurisdiction levels; and 3) a socio-geographically diverse county. The team leveraged internal and external expertise to 1) guide interpretation of checklist indicators and evaluation criteria and 2) establish policy inclusion criteria. The team consistently applied this methodology and incorporated frequent consensus-building during policy evaluation. Conclusions The application of a globally designed policy indicator to local contexts poses methodological challenges that could undermine validity. Strategies that leverage local expertise, consensus building across multiple coders, and additional guidance can minimize these issues. Implications for Policy and Practice The 1000 Cities Challenge is critical for improving global health by advancing transportation and urban design policies that promote active transportation. Additional regional standardization methods may be required to ensure consistent interpretation of indicator reports on a global scale, including systematic approaches to address multilevel governance structures and overlapping policy jurisdictions, and "member checking" results with local experts.

Australia

Longitudinal relationship between home and neighbourhood physical environment typologies and children's movement behaviours

AUTHORS

Zhao, M.X.[1], Christian, H.[2], Budgeon, C.[3], Trost, S.[4], Schipperijn, J.[5], Murray, K.[3], Boruff, B.[6]

AFFILIATIONS

[1]*The Kids Research Institute*

[2]*The Kids Research Institute Australia, The University of Western Australia*

[3]*School of Population and Global Health, The University of Western Australia*

[4]*School of Human Movement Studies Department at The University of Queensland*

[5]*Department of Sports Science and Clinical Biomechanics, University of Southern Denmark*

[6]*School of Agriculture and Environment, The University of Western Australia*

Background The built environment plays a key role in shaping children's opportunities to be physically active. However, few studies have integrated objective and parent-perceived built environment measures to derive data-driven neighbourhood typologies and examined their longitudinal associations with device-measured movement behaviours across developmental stages. Methods Longitudinal associations between movement behaviours and neighbourhood typologies across early to middle childhood were examined using data from three waves of the PLAYCE (Play Spaces and Environments for Children's Physical Activity) cohort study (n=569; aged 2–10 years). Physical activity and sedentary behaviours were measured using accelerometers with sleep parent-reported. Six neighbourhood physical environment typologies derived in a previous study using latent profile analysis were applied in the current analyses. Results Across all neighbourhood profiles, time spent in movement behaviours showed non-linear age trajectories, except for walking. Differences between profiles were consistent across ages and sexes. Children living in 'semi-rural' neighbourhoods accumulated more walking time than those in other profiles, and higher total daily physical activity and light-intensity play compared with all profiles except those characterised by higher access to blue space. Profiles characterised by higher residential density, greater traffic exposure, and limited private yard space were associated with lower levels of energetic play and walking, despite relatively good access to public transport and destinations. Conclusion Neighbourhoods offering access to private outdoor space and natural environments, and lower traffic exposure appear to support higher physical activity levels across early to middle childhood. Urban planning and housing policies should prioritise child-friendly design features, such as access to play space, nature, and traffic safety, to promote opportunities for physical activity across childhood.

Funding: WA Health Promotion Foundation (24219, 32018), UKRI-NHMRC Built Environment Prevention Research Scheme (GNT1192764, MR/T039329/1). WA Future Health Research and Innovation Fund (WACSOSP2023-2024/4). ARC's Life Course Centre (CE200100025). HC by the Kids Research Institute Australia Fellowship

Colombia

Happiness Centers in Bogotá as Well-being Environments: Lessons from a Living Urban Laboratory

AUTHORS

Quiroga Cruz, A.L.[1], Martínez, M.[1], Ruiz Ríos, J.D.[1], Cuervo, V.[1], Solarte, A.[1], Guzman, P.A.[1], Romero, S.[1], Arango, D.[1], Latorre, M.L.[1], Briceño, S.[1], Chaves, J.C.[1], Correa, J.C.[1]

AFFILIATIONS

[1]*Fundación Universitaria Juan N. Corpas*

Background: Bogotá's Happiness Centers (CEFE) are innovative social infrastructures that serve millions of people, designed to promote physical activity, culture, and well-being. These public spaces integrate social interaction and health within urban environments. Purpose: To build a multidimensional concept of happiness linked to physical activity and the prevention of non-communicable chronic diseases within the CEFEs to analyze their contribution to territorial well-being. Methods: A Living Urban Laboratory of Happiness was implemented as a participatory process using qualitative and quantitative methodologies across diagnostic, co-creation, and experimentation phases. Techniques such as World Café, discussion groups, playful dynamics, and the application of subjective well-being instruments were utilized. Participants included users, workers, academia, and entities such as the District Institute of Recreation and Sports. Results: The concept of happiness is multidimensional. Users associate happiness with disconnecting from stress, strengthening self-esteem, safety, and the construction of community networks. Physical activities such as swimming, yoga, and rumba are fundamental. Logistical and access barriers such as restricted hours and inclusion challenges were identified. The influence on territorial well-being affecting millions of people; is currently expanding, and is unevenly distributed across the various localities where CEFEs are located. Conclusions: CEFEs function as urban health ecosystems where physical activity coordinates social cohesion and community identity. An emphasis is needed on the relationship between physical activity and disease prevention. This study constitutes a pioneering measurement of this urban intervention model, positioning the CEFE as a replicable strategy. Implications for Practice and Public Policy: The findings propose novel strategies to strengthen the use of CEFEs. It is necessary to optimize schedules and the communication of offerings to overcome identified barriers. Funding: This work is part of the Horizon Europe program and the City Move project, funded by the European Union and, in Colombia, by Juan N. Corpas University.

United States

Beyond distance: Uncovering the unrealized potential of bicycling infrastructure to optimize urban cycling for transportation

AUTHORS

Garza, C.[1], Karner, A.[2], Salvo, D.[3]

AFFILIATIONS

[1]*People, Health and Place Lab & Center for Research to Community Impact (CRCI), College of Education, The University of Texas at Austin, Austin, Texas, USA*

[2]*Graduate Program in Community and Regional Planning, The University of Texas at Austin,TX, USA*

[3]*Center for Research to Community Impact & Department of Kinesiology and Health Education, College of Education, The University of Texas at Austin, Austin, TX, USA*

Background: Despite living within 'bicycling distance' to urban cycling infrastructure, many city dwellers do not choose to commute by bike. Reproducible methods for assessing commuting underutilization that account for cycling comfort are limited. Purpose: Demonstrate a model-based method to estimate bicycle commute feasibility, compare known rates of bicycling commuters with overall feasible cycling commuters, and feasible commutes by network comfort level, using Austin, Texas, USA, as a case study. Methods: Data from City and federal sources included 2023 reported commuting rates, 2022 origin-destination worker flows and worker counts, municipal bicycle network data, and U.S. Census (neighborhood) shapefiles. Using the City's road stress index, cycling-network segments (e.g., bike lanes, sharrows, urban trails) were classified into three comfort thresholds (any comfort level; at least somewhat comfortable; and always most comfortable), reflecting cyclists' tolerance for traffic stress. Feasible commutes (≤3 miles) were estimated using origin-destination worker data. Results: Across all network comfort thresholds, estimated feasible bicycle commuters significantly ($p<0.001$) exceeded the current reported commuter bicycling prevalence in Austin (0.77%). Approximately 1 in 10 (9.63%) Austin workers were estimated to have a feasible bicycle commute if relying on the full network (i.e., traveling through segments of any cycling comfort level), 6.68% could do so withing a cycling network restricted to at least somewhat comfortable conditions, and 2.32% could feasibly commute to work by bike using only the most comfortable, lowest-stress cycling infrastructure. Conclusions: Substantially fewer workers commute by bicycle in Austin than feasible given network availability and distance to work. Implications for Policy and Practice: This methodology can support urban transport planning and health efforts by helping cities estimate the gap between potential (feasible) and actual commuter cyclists and by informing the development of programs to optimize cycling network utilization. Similar approaches may be adapted to assess pedestrian and transit commuting network utilization.

United States

Using public participatory GIS to assess neighborhood-level active travel environments in central Texas

AUTHORS

Swinney, K.[1], Le, S.[1], Garza, C.[1], Zhang, Y.[2], Ganzar, L.A.[3], Karner, A.[1], Bentley, S.[2], Hoelscher, D.[2], Salvo, D.[1]

AFFILIATIONS

[1]*University of Texas at Austin*
[2]*UTHealth Houston School of Public Health*
[3]*Professional Data Analysts*

Background: Physical activity rates are alarmingly low for U.S. adolescents. Active transportation, or walking and cycling for travel, is a promising strategy to increase physical activity in middle school students, but it depends on supportive built environments. Purpose: To assess, through a place-based lens, why students, parents, and residents of low-income middle school neighborhoods in Central Texas, USA, highlight some locations as being particularly supportive or unsupportive for active transportation. Methods: Middle school students (ages 12-15), parents, and adult residents of six low-income middle school neighborhoods (defined by their school attendance boundaries) participated in Public Participatory Geographic Information Systems (PPGIS) interviews. PPGIS combines quantitative spatial data with qualitative insights from residents. Participants identified locations within the school neighborhood they considered particularly supportive or unsupportive of active transportation, and were probed with open-ended qualitative questions to provide additional context. All interviews were recorded and transcripts were created using WhisperAI. De-identified transcripts were analyzed using deductive thematic coding informed by the Ecological Model of Active Living by Sallis et al. using Dedoose. Results: One hundred and two PPGIS interviews were conducted (45 students, 21 parents, and 26 community members). Preliminary thematic analysis findings show the presence of bike lanes and sidewalks, low car density, and marked crosswalk availability are the key built-environment features that support active transport. High car speeds, high traffic volume, inconsistent sidewalk and bike lane coverage, and disconnected neighborhoods were most often reported as unsupportive elements. Conclusions: Students, parents, and residents consistently identified overlapping locations as being supportive or unsupportive of active travel and cited the same types of features to explain their selections. Implications for Policy and Practice: Using mixed-methods assessment tools is important for informing and creating place-based interventions that make meaningful improvement for residents. Funding: NIH-Grant R01MD019423

LONG ORALS

6 Oct | Epidemiology and evidence of physical activity in populations

Session Chair: Philippe Gradidge

United States

Global patterns of active transportation: the Global Observatory for Physical Activity

AUTHORS

Zhang, K.[1], Varela, A.R.[2], Mejía-Grueso, J.[3], Pratt, M.[4], Hallal, P.R.C.[5]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*

[2]*Department of Epidemiology, University of Texas Health Science Center at Houston, School of Public Health, Houston, TX, USA; Center for Pediatric Population Health, Houston, TX, USA; Department of Pediatrics, McGovern Medical School at UTHealth, Houston, TX, USA*

[3]*Global Observatory for Physical Activity (GoPA!), Houston, TX, USA*

[4]*Herbert Wertheim School of Public Health & Human Longevity Science, University of California, San Diego, US.*

[5]*Department of Health and Kinesiology, University of Illinois Urbana-Champaign, US.*

Background: Active transport (walking and cycling for travel) is a key domain of physical activity, yet its health relevance may differ within and between populations due to active transport being used as a necessity vs. a choice across different contexts. Purpose: To describe global patterns of adult active transport and examine associations with key national health and socioeconomic indicators. Methods: We used the 3rd edition of the Global Observatory for Physical Activity (GoPA!) Country Cards. Countries with missing active transport data were excluded, resulting in 72 countries. Equiplots were generated to visualize cross-country inequalities. Pearson correlations were conducted between active transport prevalence and key national indicators, including the human development index (HDI), % urban population, and noncommunicable disease mortality. Results: Active transport showed clear geographic clustering, with higher levels concentrated in many African countries and lower levels most observed in high-income countries. In the AFRO, EMRO, PAHO and WPRO regions, men were consistently more active in transport than women. In EURO and SEARO, gender differences were less clear cut. In correlation analysis, higher active transport was associated with lower HDI ($r=-0.41$, $p<0.001$) and lower urban population ($r=-0.31$, $p=0.006$). In contrast, higher active transport was positively associated with higher NCD mortality ($r=0.31$, $p=0.007$). Conclusions: Active transport varies widely across countries and shows regional clustering. Taken together, our results suggest that active transport for necessity was predominant over active transport as a choice. Therefore, the interpretation of active transport data should consider context and equity. Implications for Policy and Practice: Policies should stimulate safe walking and cycling (e.g., sidewalks, bike lanes, and traffic safety) as a choice. In addition, walking and cycling infrastructure needs to be improved in contexts where active transport is more a necessity than a choice.

Funding: NA Acknowledgements: The authors would like to thank the GoPA! Country Contacts.

Canada

Meeting 24-hour movement behavior guidelines among Canadian post-secondary students: Temporal trends, disparities, and mental health

AUTHORS

Hou, M.[1], Beauchamp, M.[1], Kwan, M.[2], Faulkner, G.[1]

AFFILIATIONS

[1]*University of British Columbia*
[2]*Brock University*

Background: Meeting 24-hour movement behaviors guidelines (24-HMB: physical activity, sedentary behavior, recreational screen time, and sleep) is associated with a variety of positive health outcomes. However, temporal trends for meeting these guidelines and disparities across sociodemographic and mental health subgroups remain uninvestigated among Canadian post-secondary students. This substantively limits the development of targeted interventions. Methods: We conducted a serial cross-sectional analysis using data from the Canadian Campus Wellbeing Survey (CCWS) collected between 2019 and 2025. We examined the prevalence of meeting individual and combined 24-HMB guidelines; also stratified by sociodemographic factors (age, gender, race/ethnicity, parental education, financial stress) and mental health indicators (mental distress and wellbeing). Results: Data from 116,597 individuals (mean [SD] age, 23.95[8.02] years; 78,623[67.43%] women) were analyzed. From 2019 to 2025, the estimated prevalence of participants meeting recommendations for all four behaviours significantly increased over time, ranging from 8.92% to 14.66% (0.30% [95%CI:0.20,0.40],P<0.001), whereas the proportion meeting none of the guidelines significantly decreased, ranging from 7.45% to 4.44% (-0.29% [-0.30,-0.22], P<0.001). Across individual guidelines, meeting the recreational screen time guideline had the lowest prevalence (ranging from 43.46% to 33.32%) and showed a decreasing trend (-0.27%[-0.42,-0.12], P < 0.001). Meeting all four guidelines was consistently lower among participants who were younger than 24 years, identified as non-binary/two spirit, were black, had parents with high school or less education, experienced a great deal of financial stress, and reported severe mental distress or low mental wellbeing. Conclusions: While some indication of increasing prevalence if students meeting the combined 24-HMB guidelines, recreational screen time remains the most challenging guideline to meet and warrants particular attention. Implications for Policy and Practice: These findings underscore the need for continuous surveillance of movement behaviors and the development of tailored interventions that address sociodemographic disparities and mental health barriers in this population.

Mexico

State-Level Trends in Cardiovascular Deaths Related to Physical Inactivity in Mexico

AUTHORS

Ortiz Brunel, J.[1], Pérez Castro, E.[2]

AFFILIATIONS

[1]*National Institute of Public Health (INSP)*
[2]*National Institute of Public Health*

Background: Cardiovascular disease (CVD) is the leading cause of death in Mexico and represents a substantial burden on the healthcare system. Physical inactivity is a key modifiable risk factor associated with increased cardiovascular mortality. Although international evidence has extensively documented its impact, limited information exists regarding subnational trends in CVD mortality attributable to physical inactivity in Mexico. Purpose: To analyze trends in CVD mortality attributable to physical inactivity in Mexico and across its federal states during the period 2000–2023. Methods: An ecological trend study was conducted using estimates of deaths attributable to physical inactivity from the Global Burden of Disease (GBD) study. CVD deaths were analyzed by year (25 years and more), sex, and federal state. Official population projections from the National Population Council (CONAPO) were used to calculate crude and age-standardized mortality rates per 100,000 inhabitants using the direct standardization method. Temporal trends were assessed using the Average Annual Percent Change (AAPC). Results: Throughout the study period, women consistently exhibited higher CVD mortality rates attributable to physical inactivity compared with men. Mexico City recorded the highest mortality rates in both sexes. An increase in AAPC was observed in all federal states. Among women, the largest increases were observed in Tlaxcala (AAPC=8.27), Quintana Roo (AAPC=5.23), and Campeche (AAPC=4.52). Among men, the highest increases were reported in Tlaxcala (AAPC=8.92), Nayarit (AAPC=8.15), and Aguascalientes (AAPC=7.13). Conclusions: CVD mortality attributable to physical inactivity demonstrated a growing and heterogeneous trend across Mexican states. Implications for Policy and Practice: These findings highlight the urgent need to strengthen public policies promoting physical activity as a priority strategy for cardiovascular prevention, with region-specific interventions to reduce the future burden of disease. No funding

Norway

Device-measured physical activity, sedentary time, and cardiometabolic risk in youth: harmonized meta-analysis of prospective studies

AUTHORS

Ekelund, U.[1], Husøy, A.[1], Tarp, J.[1]

AFFILIATIONS

[1]*Norwegian School of Sport Sciences*

Background: The prospective associations between physical activity/sedentary time and cardiometabolic risk markers in youth are unclear. Purpose: To examine the prospective associations between device-measured physical activity and sedentary with cardiometabolic risk markers in youth. Methods: Harmonised individual participant data meta-analysis of 14 cohorts. Physical activity and sedentary time were measured by accelerometry at baseline and traditional cardiometabolic risk markers at baseline and at follow-up. Linear mixed effects regression models (with 95%CI) were used to determine associations with a composite cardiometabolic risk score at follow-up (standard deviation scores of insulin, glucose, BMI, LDL-cholesterol, triglycerides, and systolic blood pressure). Statistical models were multivariable-adjusted including baseline BMI and repeated with and without adjustment for baseline outcome. Multiple imputation was used to handle missing data. Results: We included a total of 12874 children and adolescents (51% girls) with a mean baseline age of 10.4 (SD: 3.2) years and 3.1 (SD: 2.0) years of follow-up. In the main model, higher levels of moderate-to-vigorous physical activity (MVPA) and vigorous physical activity were associated with favourable but small changes in insulin, LDL-cholesterol, triglycerides, and the clustered risk Z-scores with or without BMI. Higher sedentary time was associated with lower blood glucose and systolic blood pressure at follow-up. Sex, baseline BMI tertiles, age at baseline and follow-up, and follow-up length modified the associations between the exposures and the clustered risk Z-score. A linear dose-response relationship was observed, suggesting that approximately >90 min of daily MVPA was prospectively associated with 20% lower odds of having a clustered risk score >1. Conclusions: Physical activity and sedentary time may not be major determinants of later cardiometabolic risk markers in population-based children and adolescents. Practical implications: Promotion of physical activity and reductions in sedentary time in young people may primarily be targeted on other outcomes than cardiometabolic risk markers. Funding None

Norway

Leisure-time physical activity from pre-pregnancy to postpartum in triplet pregnancies. A Norwegian cohort study

AUTHORS

Owe, K.M.[1], Andreassen, S.M.[2], Evenson, K.R.[3], Laine, K.[4]

AFFILIATIONS

[1]Norwegian research center for Women's health, Oslo University Hospital

[2]1) Norwegian Research Centre for Women's Health, Oslo University Hospital, Oslo, Norway. 2)Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, Oslo, Norway

[3]Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, North Carolina, USA

[4]1) Norwegian Research Centre for Women's Health, Oslo University Hospital, Oslo, Norway. 2) Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, Oslo, Norway

Background Physical activity before, during, and after pregnancy improves maternal and neonatal outcomes following singleton pregnancies. However, data on leisure-time physical activity (LTPA) in women with triplet pregnancies is absent. Identifying longitudinal patterns of LTPA during and following pregnancy can inform tailored recommendations for this high-risk population. Purpose To characterize the distribution and trajectories of leisure-time physical activity from pre-pregnancy to 18 months postpartum among women with triplet pregnancies. Methods Using data from the Norwegian Mother, Father and Child Cohort study linked to the Medical Birth Registry of Norway (1999-2008), we included women pregnant with triplets (n=21). Frequencies of LTPA were self-reported by validated questionnaires during and after pregnancy: around pregnancy weeks 17 and 30, and six and 18 months after birth. LTPA three months before pregnancy was recalled around week 17. We used individual-level spaghetti plots to visualize trajectories across timepoints. Group-level summary statistics (mean, standard deviation (SD), median, inter quartile range (IQR)) were used to describe the distribution of LTPA. Results Mean maternal age was 33.1 years (SD 4.5), and 38% (n=8) were first-time mothers. LTPA declined from a median of 4.25 times/week (IQR 2.25-6.75) before pregnancy to 1.00 (0.25-4.00) and 0.13 (0.00-3.00) around 17 and 30, respectively. Six months after birth, median LTPA increased to 3.38 times/week (2.13-5.50) and slightly decreased to 3.00 (1.25-6.00) 18 months after birth. Conclusions This is the first longitudinal study to describe the LTPA distribution before, during, and after triplet pregnancies. LTPA declined markedly by late pregnancy but rebounded by six months postpartum. Larger studies are needed to improve precision. Implications for Policy and Practice The marked decline in LTPA during triplet pregnancies highlights the need for tailored trimester-specific guidance to help women maintain safe levels of LTPA. Funding This project is funded by Foundation Dam (grant number 2023/FO426548).

Germany

Physical Activity and Health in Youth With and Without Chronic Diseases Post-COVID-19 (COMO Study)

AUTHORS

Hanssen-Doose, A.[1], Klein, T.[2], Siaplaouras, J.[3], Niessner, C.[4], Reiss, F.[5], Kaman, A.[5], Ravens-Sieberer, U.[5], Reichert, M.[6], Olfermann, R.[7], Worth, A.[1], Volk, C.[4]

AFFILIATIONS

[1]*Karlsruhe University of Education*
[2]*Karlruhe University of Education*
[3]*Kinderkardiologie Wetterau*
[4]*Karlsruhe Institute of Technology*
[5]*University Medical Center*
[6]*Paris Lodron Universität Salzburg*
[7]*Ruhr Universität Bochum*

Background Good health in childhood and adolescence is fundamental to physical, mental, and emotional development. Young people with chronic diseases faced particular challenges during the COVID-19 pandemic. This analysis examines physical activity (PA) and health among youth, considering sociodemographic characteristics and physician-diagnosed conditions. Methods The COMO study is a nationwide prospective cohort with annual online waves (2023–2026). In the first wave (COMO1, 2023/2024), 35,157 families with children aged 4–17 years were recruited via a two-stage register-based sampling procedure. Measures included age, gender, socioeconomic status (SES), self-reported physician-diagnosed diseases, PA (WHO recommendations), General health, Health-Related Quality of Life (HRQoL; KIDSCREEN-10). Results Analyses included N=6,097 participants, aged 4–17 years (48.6% male, 50.9% female, 0.5% diverse; 21% low, 61% middle, 18% high SES; BMI 17.8 ±3.7). Overall, only 20.2% met WHO physical activity recommendations, 7.1% reported fair/poor health, and 76.2% showed medium or low HRQoL. Physician-diagnosed diseases included Long COVID (9.2%), asthma (6.7%), joint pain (5.8%), scoliosis (4.5%), attention-deficit disorder (4.5%), heart disease (2.2%), epilepsy (0.9%), and hypertension (0.7%). Conclusions Five years after pandemic onset, only a minority of young people in Germany meet WHO PA recommendations, and socioeconomic inequalities in mental and physical health persist. Diagnosis-specific analyses of PA, BMI, General Health and HRQoL indicate a substantial additional health burden among affected youth. The COMO study has several strengths, including its holistic approach that integrates physical and mental health as well as its population-based sampling design. Nevertheless, some limitations should be considered. Older adolescents are underrepresented in the sample. In addition, the comparatively high prevalence of physician-diagnosed Long COVID may reflect response bias related to the study's pandemic focus. Overall, both general and disease-specific findings are intended to inform future physical activity and health promotion strategies that explicitly include children and adolescents with chronic diseases.

Brazil

Impact of a severe climate event on physical activity inequalities: findings of the PAMPA cohort

AUTHORS

Feter, N.[1], Feter, J.[2], Caputo, E.[3], Quadros Santos Rocha, J.[4], Cozzensa da Silva, M.[5], Rombaldi, A.J.[5]

AFFILIATIONS

[1]*UFRGS*

[2]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil; Postgraduate Program in Epidemiology, Universidade Federal do Rio Grande do Sul, Rio Grande do Sul, Brazil*

[3]*Center for Evidence Synthesis in Health, Brown University, Providence, RI, USA.*

[4]*Postgraduate Program in Health Sciences, Federal University of Rio Grande, Rio Grande do Sul, Brazil.*

[5]*Postgraduate Program in Physical Education, Federal University of Pelotas, Rio Grande do Sul, Brazil; Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil*

BACKGROUND The 2024 flooding in Rio Grande do Sul, Brazil, represented the most severe climate event in the state's history. While the COVID-19 pandemic has widened inequalities in physical activity, the extent to which extreme climate events influence these inequalities remains poorly understood. PURPOSE To compare inequalities in physical activity before and after the 2024 flooding in the Rio Grande do Sul, Brazil. METHODS We analyzed data from the Prospective study About Mental and Physical health in Adults (PAMPA) cohort. Leisure-time physical activity was assessed at baseline (June 2020), before (June 2023; wave 5), and after (September 2024; wave 6) the 2024 flooding. Inequalities were evaluated using absolute percentage-point (p.p.) and relative (%) differences in the prevalence of achieving ≥150 minutes/week of leisure-time physical activity. RESULTS Among 1,393 eligible participants, 468 adults were included (mean age: 39.4 years [SD: 13.2]; 79.4% women). The prevalence of meeting physical activity recommendations increased from baseline (26.5%) to wave 5 (44.2%) and stabilized at wave 6 (43.8%). Sex and education differences narrowed from baseline to wave 5 and stabilized at wave 6. In contrast, income inequalities narrowed before flooding but widened markedly afterward, with differences increasing from 22.5 p.p. (188%) at baseline to 37.1 p.p. (279%) at wave 6. Race and ethnicity-based inequalities also increased, with differences between Mixed Race and White participants rising from 3.9 p.p. (17%) at baseline to 12.3 p.p. (38%) and 9.4 p.p. (26%) before and after the flooding. CONCLUSIONS Inequalities in leisure-time physical activity, especially by race and ethnicity and income, widened after the 2024 flooding in the state. IMPLICATIONS FOR POLICY AND PRACTICE In the context of increasingly frequent and severe extreme climate events, policies should explicitly address the social determinants of health to reduce the impact on historically vulnerable populations, ensuring their access to healthcare, including physical activity.

Germany

Assessing the applicability of the Physical Activity Environment Policy Index to the local level

AUTHORS

Birkholz, L.[1], van Hoye, A.[2], Garcia Bengoechea, E.[3], Volf, K.[3], Jankauskiene, R.[4], Bacevičienė, M.[4], Heuvelman, F.[5], den Braver, N.[5], Sandu, P.[6], Peter, L.[6], Wachnicka, J.[7], Zukowska, J.[7], Tcymbal, A.[8], Abu-Omar, K.[8], Woods, C.[3], Messing, S.[3]

AFFILIATIONS

[1]*Friedrich-Alexander-Universität Erlangen-Nürnberg*

[2]*Université de Lorraine, France*

[3]*University of Limerick, Ireland*

[4]*Klaipeda's University, Lithuania*

[5]*Amsterdam University Medical Center, Netherlands*

[6]*University Babes-Bolyai, Romania*

[7]*Gdansk University of Technology, Poland*

[8]*FAU Erlangen-Nürnberg, Division Physical Activity & Health, Germany*

Background: Local governments play a central role in shaping physical activity environments due to their proximity to communities. Despite their importance for implementing physical activity policies, only a very limited number of monitoring and assessment tools was specifically designed for the local level, and none of them assesses the extent of policy implementation. Purpose: This study aims to assess if and how the Physical Activity Environment Policy Index (PA-EPI) – that was developed to assess the implementation of national policies – can be used at the local level. Methods: The 45 PA-EPI Good Practice Statements (GPS) were adapted to the local level in a series of online workshops, involving researchers with expertise in physical activity policy. In a second step, an expert survey was conducted to assess the applicability of the tool at the local level in each country. Both policymakers and non-government stakeholders with expertise in local physical activity policy were recruited. Results: The terminology of the 45 PA-EPI GPS was adapted to ensure applicability to local contexts as well as consistency with the national-level tool. Experts from 11 European countries were recruited. The results indicate country-specific strengths and limitations with regards to the adoption of local policies and the availability of evidence of their implementation. Conclusions: This study highlights the importance of adapting the PA-EPI to the country context when assessing physical activity policies at the local level. On a more general level, the results include important learnings on the need to adapt international tools to national or even local contexts. Implications for Policy and Practice: The PA-EPI can be applied by coalitions of non-government stakeholders to assess physical activity policy implementation at the local level. By generating evidence documents and identifying gaps of policy implementation, the tool can support reflection and exchange. Funding: ERA4Health Partnership (GA N° 101095426).

LONG ORALS

6 Oct | From inequity to inclusion: population-specific and equity approaches

Session Chair: Lucie Lévesque

Canada

Expansion of a parent-focused physical literacy intervention for early childhood to families experiencing vulnerability

AUTHORS

Carson, V.[1], Potter, M.[1], Hwang, Y.[1], Buckler, E.J.[2], Boyd, M.[1], Rhodes, R.[2], Liu, S.[2], Naylor, P.J.[2]

AFFILIATIONS

[1]*University of Alberta*
[2]*University of Victoria*

Background: Approaches for addressing inequities in children's physical activity are needed. Targeting physical literacy in early childhood is a promising approach for supporting childhood physical activity. Parent-focused interventions in this age group are limited. Purpose: Examine the efficacy and implementation of the expansion of a virtually-delivered, parent-focused physical literacy intervention for early childhood called PLAYshop to families experiencing vulnerability. Methods: A randomized controlled trial was conducted in 35 (intervention: 16; control: 19) parents of preschool-aged children (3-5 years) from Alberta and British Columbia, Canada. PLAYshop included educational training (i.e., workshop), educational and material (i.e., handouts, active play equipment) resources, and follow-up support via an app with four bi-weekly booster lessons. Primary efficacy outcomes, including parental capability, opportunity, and motivation to support preschool-aged children's physical literacy development, were measured at baseline and post-workshop (intervention group)/1-week post-baseline questionnaire (control group). Secondary implementation outcomes (satisfaction, perceived usefulness, facilitators, barriers, and dose) were measured in the parental questionnaire and explored via parent (n=11), agency partner staff (n=9), and workshop leader (n=3) interviews. Repeated measures analyses of variance (RM ANOVAs) and thematic analyses were conducted. Results: Increases in parental capability (i.e., knowledge: partial η^2=0.124; p=0.038), opportunity (i.e., perceived availability of resources: partial η^2=0.420; p<0.001), and motivation (i.e., confidence: partial η^2=0.128; p=0.035), to support preschool-aged children's physical literacy development were observed in the intervention group, compared to the control group. All intervention parents found the workshop useful/extremely useful, were satisfied/extremely satisfied with the workshop content and delivery, and reported in interviews implementing physical literacy-related play. Recruitment was challenging and only 31% accessed ≥1 booster lessons. Conclusions: Efficacy for the PLAYshop intervention was observed for some outcomes in families experiencing vulnerability. Implications for Policy and Practice: Incorporating PLAYshop into existing programs of partner agencies may address implementation challenges. Funding: Canadian Institutes of Health Research (# 468493)

Mexico

Adapting interventions to promote muscle-strengthening activity in public spaces of low-income communities: a mixed-methods study

AUTHORS

Martínez Cano, A.M.[1], Hernández Alcaraz, C.[2], Salvo, D.[3], Jauregui, A.[2]

AFFILIATIONS

[1]*INSP/ESPM*
[2]*INSP*
[3]*The University of Texas at Austin*

Background Muscle-strengthening activity (MSA) improves health and well-being, yet global and Mexican surveillance focus almost exclusively on aerobic activity. Public open spaces provide a means to promote MSA in low-income communities; however, without place-activation strategies, public space improvements are insufficient. Purpose To explore the contextual adaptability of evidence-based public-space activation interventions for promoting muscle-strengthening activity in low-income urban communities in Mexico, drawing on the perceptions of community residents and implementation allies. Methods This was a mixed-methods secondary analysis using data collected in 10 Mexican cities. A total of 13 public-space activation interventions produced in high-income countries were classified as having direct or indirect potential to promote muscle-strengthening activity (MSA) in open public spaces. Participants rated the interventions on adaptability using a 5-point Likert scale (acceptability, appropriateness, feasibility, adaptability). Additionally, qualitative data were collected from focus groups and semi-structured interviews. Data will be triangulated, and recommendations for stakeholders and community residents will be produced based on results. Results Three strategies were classified as having direct potential to promote MSA: Low-cost Classes, Low-cost Materials, and Sports Tournaments, while the remaining were considered to have indirect potential by improving overall levels of physical activity. Full triangulation of quantitative and qualitative data, focusing on acceptability, appropriateness, feasibility, and adaptability of each strategy, is underway. The results of the triangulation process will complement these findings at the time of the Congress. Conclusions Public-space activation strategies can be organized by their direct or indirect potential to support MSA, revealing implementation needs. Resultados esperados Implications for Policy and Practice This framework can guide policymakers and implementers to prioritize and adapt strategies that both leverage existing public-space investments and help reduce health inequalities in low-income communities. Funding (if applicable) No funding was received for this secondary analysis.

Sweden

Playing Sports and Paying Attention: Sports Participation and ADHD Symptoms in Childhood

AUTHORS

Ontiveros Cisneros, N.[1], Ekblom, Ö.[2], Wiklund, C.[2]

AFFILIATIONS

[1]*The Swedish School of Sport and Health Sciences (GIH)*

[2]*The Swedish School of Sports and Health Sciences (GIH), Department of Health sciences*

Background Participation in organized sports is associated with physical, social, and mental health benefits in childhood. ADHD symptoms may affect engagement in sports, particularly team sports. Current evidence is limited on the association between ADHD symptoms and sports participation, not considering participation across different sport types. Purpose To enhance the understanding of the relationship between ADHD symptoms and sports participation, and to assess whether this differs by sex, type of symptoms, and type of sports. Methods This population-based study included 4,343 (51.7% girls) nine-year-old children from the Swedish Twin Registry. ADHD symptoms, sports participation, and type of sports (team, individual, or both) were measured through parent-report questionnaires. Logistic GEE models estimated odds ratios (ORs) and 95% confidence intervals (CIs), adjusting for mental comorbidities. Sex-stratified analyses were conducted, and inattention and hyperactivity/impulsivity symptoms were examined separately. Results Children with high ADHD symptoms had lower odds of participating in sports than those with low symptoms (OR = 0.44, 95% CI 0.34-0.56). The association was stronger in boys (OR = 0.35, 95% CI 0.26-0.49) than in girls (OR = 0.60, 95% CI 0.42-0.87). Among boys, inattention- but not hyperactivity/impulsivity- was significantly associated with lower sports participation (OR=0.31, 95% CI 0.20, 0.46). High ADHD symptoms were associated with lower odds of team sports participation in boys (OR = 0.64, 95% CI 0.41–0.99), but not in girls. Conclusions Our findings suggest that ADHD symptoms are related to lower sports participation in children, particularly among boys, and this seems to be driven by inattention symptoms. Among boys, ADHD symptoms are specifically associated with lower participation in team sports. Implications for Policy and Practice These findings highlight the need for targeted strategies to reduce disparities in sports participation among children with ADHD symptoms, and inclusive sport environments that address ADHD-related challenges, particularly in team sports.

Denmark

Playscapes: A global platform for assessing children's access to playgrounds

AUTHORS

Schipperijn, J.[1], Ståhle, A.[2]

AFFILIATIONS

[1]*University of Southern Denmark*
[2]*Spacescape*

Background: Equitable access to safe, high quality play spaces is essential for children's health, physical activity, and social development. Yet many cities lack consistent data on where playgrounds are located and which neighbourhoods are underserved. To address this gap, the World Playground Research Institute and Spacescape developed Playscapes, a new web based mapping platform that enables global comparison of playground accessibility using open and internationally comparable datasets. Playscapes can be accessed at https://playgroundresearch.org/playscapes/. Program Delivery or Policy Components: Playscapes compiles playground locations from OpenStreetMap and integrates demographic data from Eurostat, the Global Human Settlement Layer, and WorldPop. The platform provides interactive indicators such as playgrounds per square kilometre, share of children without access, and citywide and national rankings. Users can explore cities worldwide with more than 50,000 inhabitants and zoom from city-level summaries to 1×1 km grid-based analyses revealing local spatial inequalities. Playscapes allows filtering by region, city size, or accessibility metrics and includes built in feedback features to support iterative improvement. Evaluation and Impact: Playscapes functions both as a benchmarking tool and a local decision-support system. Early use demonstrates its value for identifying underserved neighbourhoods, informing master plans and child-friendly city strategies, and guiding playground site selection. Community groups and NGOs benefit from clear visualizations that support advocacy and participatory planning. The tool also highlights data gaps, motivating municipalities to improve open data quality and enabling cross city research on spatial equity and children's environments. Conclusions: Playscapes provides the first globally comparable, open-access platform for assessing playground accessibility, supporting data driven planning for healthier, more equitable cities. Practical implications: Urban planners, policymakers, designers, and communities can use Playscapes to prioritize investments, address inequities, strengthen funding proposals, and support child centred urban development. Funding: The development of Playscapes is funded by Kompan, a large multi-national playground and fitness equipment company.

United States

Accelerating Physical Activity Opportunities for Vulnerable Children in Brazil: A Path to Sustainable School Policy

AUTHORS

Miranda Tassitano, R.[1], Marinho Tenorio, M.C.[1], da Silva, L.C.[2]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*
[2]*Federal University of Alagoas*

Introduction: Promoting regular physical activity is considered a vital investment for sustainable societies. This natural experiment assessed how a school physical activity policy impacted children's activity levels in a low-income Brazilian city. Methods: This is a multistage study that combined a mixed-methods approach. A comprehensive school-based physical activity policy, to be implemented in elementary public schools in Arapiraca-Brazil, was co-created and validated through a two-round Delphi process and stakeholders' consultation. At baseline, four schools were randomly selected, and children's moderate to vigorous physical activity (MVPA) (n = 250) was objectively measured during school hours. The policy has not yet been enacted; however, some schools have adopted parts of it. Two schools hired a licensed physical education teacher (i.e., expand mechanism), and one renovated the outdoor playground (i.e., enhance mechanism). Repeated-measures ANOVA was used to assess pre-post changes, adjusting for school environment, age, and sex. Statistical significance was set at p 0.05). School 2, which renovated its outdoor playground, increased from 21.6 to 26.8 minutes/day ($p < 0.05$). Schools 3 and 4, which hired PE teachers, showed no significant changes (School 3: 12.2±6.4 to 11.2±; School 4: 15.8± to 13.9±3.9). Despite reductions in mean MVPA in schools that hired PE teachers, the variability decreased. Only the playground renovation was associated with a significant increase in MVPA. Conclusion: The natural experiment indicates that environmental enhancements may have a more immediate and measurable impact on children's MVPA than staff-based policy expansions. These findings suggest that school infrastructure improvements could be a cost-effective and sustainable strategy to promote physical activity in low-income settings.

Australia

Effectiveness and usability of a co-designed training package for sport professionals working with autistic youth

AUTHORS

Maddren, C.[1], Gomersall, S.[2], Williams, B.[3], Hill, J.[3]

AFFILIATIONS

[1]*The University of Queensland*

[2]*Health and Wellbeing Centre for Research Innovation, School of Human Movement and Nutrition Sciences, The University of Queensland, Brisbane, Australia, and School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia*

[3]*School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia*

Background: Autistic youth consistently report high levels of physical inactivity and lower participation in sport compared to non-autistic peers. While community-based sport offers opportunity to be physically active, autistic youth face barriers to participation such as navigating social and sensory environments, motor skill difficulties and lack of appropriate support from sports coaches. Evidence suggests that sports professionals lack the knowledge and confidence to support autistic youth in community-based sports settings. Purpose: To examine the effectiveness, acceptability, and usability of a co-designed workforce training for sport professionals working with autistic youth. Methods: A pre–post study evaluated the acceptability, effectiveness and usability of 'Creating Connections' a co-designed workforce training for sport professionals working with autistic youth. Adults working within sport/exercise were purposively recruited via a partner organisation. Participants completed the training and pre- and post-surveys which assessed knowledge, attitudes, and confidence of working with autistic youth, and demographics. Usability and acceptability were measured using modified System Usability Scale and Technology Acceptance Model instruments. Data were summarised using descriptive statistics and analysed using independent test of associations. Open-ended responses underwent content analysis. Results: Data collection is ongoing. Preliminary analyses indicate improvements in participants' self-reported knowledge, attitudes, and confidence in supporting autistic youth following completion of the training, 'Creating Connections'. Early insights suggest high acceptability and usability of the training among sport professionals. Full analyses will be completed by the ISPAH Congress. Conclusions: Preliminary insights indicate that a co-design training package has the potential to enhance sports professionals' capacity to support autistic youth and promote community sport participation. Implications for Policy and Practice: Embedding co-designed training within standard workforce development may strengthen inclusive sport delivery and reduce participation barriers for autistic youth at scale. Funding: This project received funding from the Australian Government Department of Health, Disability and Ageing.

United States

Who Benefits Most? Community-Level Predictors of Physical Activity and Wellbeing across National Middle-School Cycling Program

AUTHORS

Schuck, L.[1], Walker, E.[1], Wilson, S.[2], Wiafe, S.[2], Brown, C.[3]

AFFILIATIONS

[1]*Outride*
[2]*Loma Linda University*
[3]*University of Oklahoma*

Background Youth face declining physical activity and unequal access to outdoor environments. Time in nature supports well-being and physical activity, suggesting outdoor cycling programs may provide a promising avenue for improving youth mental wellbeing. Purpose: This study assessed how social vulnerability and nature access relate to student gains in physical activity, well-being, and bicycling behaviors before and after a school cycling program. Methods: Students completed pre- and post-program surveys assessing bicycling behaviors, well-being (WHO-5), and lifestyle factors. Data from 2021–2025 (pre: n=21,285; post: n=16,795; 125 schools) were matched to NatureScore and the Social Vulnerability Index (SVI) by zip code. Results: Preliminary results at baseline revealed WHO-5 scores were associated with gender (β=-5.31, t = -21.89), meeting sleep (β=10.04, t = 33.77), physical activity (β=7.04, t = 21.39), and screen time recommendations (β=5.10, t = 16.54), and whether students cycled weekly (β=5.22, t = 16.69). NatureScore (β=.007, t = .006) and SVI (β=.81, t = .56) did not predict WHO-5 scores. Weekly riding frequency was predicted by gender (β=-.11, t = -21.90) and NatureScore (β=.10, t = 2.90), but not SVI (β=-.01, t = -.13). Schools were more concentrated in higher NatureScore and higher SVI areas. Notably, schools with the lowest nature access demonstrated the largest improvements across physical activity, well-being, screen time, and riding confidence following program participation. Conclusions The program serves a diverse range of communities and may confer the greatest benefits for students in highly vulnerable areas. While nature access predicted riding frequency, and riding frequency predicted mental wellbeing, nature access alone was not predictive of mental wellbeing. Further analyses will explore mechanisms underlying these patterns. Implications for Policy and Practice: Findings will guide program priorities by identifying communities most likely to benefit. Funding: Supported by the REI Cooperative Action Fund (2024) and Specialized Bicycle Components.

Mexico

Priority actions to advance human movement behavior research for effective public policy in Mexico development

AUTHORS

Jáuregui, A.[1], Argumedo, G.[1], Ramírez, E.[2], Jáuregui Ulloa, E.[3], Quevedo, K.L.[1], REMIASS, R.M.D.I.E.A.F.S.Y.S.[1]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*
[2]*Insituto Nacional de Salud Pública*
[3]*Universidad de Guadalajara*

Background. Physical inactivity and sedentary behaviour represent major and growing public health challenges in Mexico, contributing to the burden of noncommunicable diseases and undermining both human and planetary health. Addressing these challenges requires coordinated, interdisciplinary research efforts capable of informing effective public policies. Objective. To document the establishment of the Mexican Research Network on Physical Activity, Sleep, and Sedentary Behaviour (REMIASS) and to report priority actions in Mexico to address and reverse the crisis of physical inactivity and sedentary behaviour. Materials and Methods. A mapping exercise and a call for participation were conducted within the academic and scientific community in Mexico. Using a modified Delphi method, an online survey was developed to achieve consensus (>80%) on priority actions, which were analysed using descriptive statistics. Results. REMIASS was founded in 2025 with a public health vision and without conflicts of interest. The network comprised 82 academics and researchers from diverse Mexican institutions. A total of 66 researchers participated (53% men; mean age = 58 years), most of whom were affiliated with public institutions (84%). The priority actions identified by REMIASS included improving safety and the appropriation of public spaces; increasing pedestrian and cyclist safety; developing and implementing a National Strategy for the Promotion of Physical Activity; strengthening training in physical activity, sedentary behaviour, and sleep; and promoting high-quality physical education. Conclusions. This initiative contributes to evidence-informed actions aimed at advancing effective public policies and promoting both human and planetary health. Policy implications: The priority actions identified by REMIASS provide a strategic, evidence-informed framework to guide multisectoral public policies aimed at reducing physical inactivity and sedentary behaviour in Mexico, while advancing both human and planetary health.

LONG ORALS

7 Oct | Tracking movement: methods, metrics and surveillance

Session Chair: Ulf Ekelund


Netherlands

Association of Step Metrics with Quality of Life in Individuals with versus without Cardiovascular Diseases

AUTHORS

Schootemeijer, S.[1], Kroesen, S.[2], Stens, N.[2], Netten, M.[2], Salzmann, I.[2], Koster, A.[3], Eijsvogels, T.[2], Bakker, E.[2]

AFFILIATIONS

[1]*Radboud university medical center*

[2]*Radboud university medical centre, Nijmegen, The Netherlands*

[3]*Maastricht University, Maastricht, The Netherlands*

Background: Higher volumes self-reported physical activity are associated with better quality of life (QoL), but these findings are prone to recall bias. Objective, wearable-derived steps could improve the understanding of the association with QoL. Purpose: Examine the dose-response association between step metrics and QoL and determine whether this association differs between individuals with versus without cardiovascular diseases (CVD). Methods: We pooled individual-level data from participants with and without CVD. We assessed steps/day and time spent at moderate-to-vigorous intensity (MV) stepping (minutes at ≥100 steps/min) obtained with thigh-worn accelerometry. We regressed step metrics on QoL (standardized to z-scores) and included the interaction with CVD status. Results: We included 7,394 individuals without CVD (61 [53–67] years; 47% female) and 1,977 with CVD (66 [60–71] years; 46% female). We observed non-linear dose-response associations between step metrics and QoL. The optimum amount of steps/day was 6,561 steps/day, resulting in a 0.35SD (95%CI: 0.28-0.42) increase in QoL compared to 4,000 steps/day. Additionally, the optimum of 9 minutes/day at MV-stepping was associated with better QoL (+0.21SD, 95%CI: 0.16-0.27) compared to 2 minutes/day. The association of MV-stepping and QoL depended on CVD health status as individuals with CVD had an optimum at 4 minutes/day (+0.20SD, 95%CI: 0.12-0.28) compared to 9 minutes/day in those without CVD (+0.19SD, 95%CI: 0.12-0.25). Conclusions: More steps and minutes at MV intensity were associated with better QoL. Importantly, individuals with CVD exhibited steeper increases in QoL for MV-stepping compared to those without CVD. Implications for Policy and Practice: Every step counts until ~6,500 steps/day independent of CVD status. Especially in CVD, MV-stepping could be recommended to improve QoL. Funding: This research is funded by the Dutch Heart Foundation and Brain Foundation Netherlands, grantnr.01-001-2024-0623 with acronym ActiveLIFE, the Dutch Heart Foundation grantnr.03-002-2023-0036 and the Dutch Ministry of Health, Welfare and Sport grantnr.90002319.

United Kingdom

Waking-time movement behaviours and multimorbidity in Malawi: a compositional data analysis

AUTHORS

Warner, B.[1], Nkoka, O.[2], Mwandira, K.[3], Mwakabanga, M.[3], Munthali, S.[4], Price, A.[5], Gray, S.[1], Crampin, A.[6]

AFFILIATIONS

[1]*University of Glasgow*

[2]*University of Glasgow, Malawi Epidemiology and Intervention Research Unit*

[3]*Malawi Epidemiology and Intervention Research Unit*

[4]*University of Exeter, Malawi Epidemiology and Intervention Research Unit*

[5]*London School of Hygiene and Tropical Medicine, Malawi Epidemiology and Intervention Research Unit*

[6]*University of Glasgow, Malawi Epidemiology and Intervention Research Unit, London School of Hygiene and Tropical Medicine*

Background: Multimorbidity – the coexistence of two or more long-term conditions – is a rising challenge globally. Movement behaviours such as inactive time and physical activity (PA) have been found to be associated with multimorbidity, but there are few compositional analyses taking account of their co-dependence in low-income settings. Purpose: To examine associations between waking-time movement behaviour compositions and multimorbidity in Malawi using compositional data analysis. Methods: A random, age- and sex-stratified sample of 3,693 individuals aged ≥15 years participating in an urban and rural Long-Term Conditions (LTC) survey in Malawi were invited to wear a wrist-worn accelerometer (Axivity AX3) for one week. Valid PA data were available for 2,917 participants. Compositional data analysis was performed on accelerometer-derived waking-time behaviours comprising inactive time, minutes of light PA, and minutes of moderate-to-vigorous PA (MVPA) per day. Associations with multimorbidity (≥2 of 12 physical and 3 mental LTCs) were assessed using logistic regression. Results: After adjusting for age, sex, and site (urban/rural), a greater relative allocation of waking time to MVPA, compared with other behaviours, was associated with lower odds of multimorbidity ($p = 0.001$). After accounting for MVPA, the balance between light activity and inactivity was not associated with multimorbidity. Reallocating 10 minutes/day from inactivity to MVPA was associated with 2 – 3% lower odds of multimorbidity (OR 0.98, 95% CI 0.97 – 0.99). Conclusions: In this low-income setting, reallocating time from inactivity to MVPA was associated with modestly reduced odds of multimorbidity. Given the cross-sectional nature of the study, causal effects could be bidirectional. Implications for Policy and Practice: Prevention and management of multimorbidity may benefit from greater emphasis on increasing MVPA, rather than light physical activity. Funding (if applicable): This study was supported by Wellcome Award: 223499/Z/21/Z.

Japan

How Large-Scale Retail Closures Affect Step Counts Among Local Residents: A Difference-in-Differences Analysis in Japan

AUTHORS

Arai, K.[1], Kamada, M.[1], Yoshida, T.[2], Yamada, I.[2], Ding, D.[3], Hino, K.[4]

AFFILIATIONS

[1]*Department of Health Education and Health Sociology, School of Public Health, Graduate School of Medicine, The University of Tokyo*

[2]*Center for Spatial Information Science, The University of Tokyo*

[3]*Prevention Research Collaboration, Sydney School of Public Health, Faculty of Medicine and Health, The University of Sydney*

[4]*Department of Urban Engineering, Graduate School of Engineering, The University of Tokyo*

Background Evidence is limited on how changes in local commercial infrastructure affect daily physical activity. Purpose To estimate the impact of large-scale commercial facility closures on nearby residents' step counts. Methods We conducted a natural-experiment study using nationwide smartphone-measured step counts from the Trima app users aged 20–64 years in Japan. Large-scale facilities were defined as those with ≥10 tenants and ≥1,000 m² of floor area that closed between April and September 2023. We defined facility catchment areas using 20-minute network distance (1.6 km on foot or 10 km by car), depending on the area's travel-mode share. Control facilities were selected within the same prefecture, and intervention and control users were defined as residents within the corresponding catchment areas. Using generalized linear mixed models, we set three periods (baseline [2–3 months pre-closure], and 2 and 3 months post-closure), and estimated covariate-adjusted difference-in-differences (DID) in step counts. Results Across seven closures and 14 matched controls, we included 3,776 exposed and 5,145 control users (66% and 67% women). Relative to baseline, significant DID was observed: +79 steps (95% CI: 1, 157) at 2 months post-closure and +128 steps (50, 206) at 3 months post-closure. We tested effect modification by model-included variables, and only walkability was significant: in lower-walkability areas, DID at 3 months post-closure was +166 steps (71, 260), whereas no clear pattern was observed in higher-walkability areas. Conclusions Large-scale facility closures were associated with a small step increase 2–3 months after closure, concentrated in lower-walkability (more car-oriented) areas. Implications for Policy and Practice Observed step increases may reflect shifts from one-stop shopping to multiple trips. Systems-oriented planning integrating urban design, essential-goods access, and physical activity is needed, with attention to vulnerable populations. Funding Japan Society for the Promotion of Science and Japan Science and Technology Agency.

Australia

How industrialisation reshapes 24-hour movement and sleep patterns: wearables-based comparisons with hunter gatherers

AUTHORS

Stamatakis, E.[1], Ahmadi, M.[2], Koemel, N.[2], Chong, K.H.[2], Sayre, K.[3], Hamer, M.[4], Biswas, R.[2], Salali, G.D.[4], Raichlen, D.[5]

AFFILIATIONS

[1]*Monash University*
[2]*University of Sydney*
[3]*UC Santa Barbara*
[4]*UCL*
[5]*University of Southern California*

Background: Evolution provides useful complementary, to modern science, insights to understand minimal and optimal patterns of 24-hour behaviours for health. Harmonised comparisons of the full 24-hour movement–posture–sleep cycle between hunter-gatherers and industrialised populations are scarce and of small scale. Purpose: To quantify how industrialisation reshapes 24-hour movement patterns using large scale harmonised wearables data from Western adults and hunter-gatherers. Methods: We aligned machine learning derived accelerometry metrics for physical activity (moderate, vigorous, and short vigorous bursts ≤1 min), posture (standing; sitting time and breaks), and sleep duration/regularity across two hunter-gatherer samples (Hadza, Tanzania; plus BaYaka, Congo; total n=311) and 42,000 age/sex-matched adults from six industrialised Western resources, including UK Biobank, NHANES, and the ProPASS consortium. Results: Compared with the hunter-gatherers, industrialised cohorts accrued substantially lower physical activity energy expenditure (9.9–17.4 vs 45.2 kJ/kg/day) and markedly less vigorous (1.6–4.7 vs 13.2 min/day), moderate (15.4–28.4 vs 74.5 min/day), and short vigorous-burst activity (1.5–4.4 vs 11.1 min/day). Sitting time was similar or slightly lower in industrialised samples (9.8 vs 10.2 h/day) and more frequently interrupted (43% more breaks), while static standing was higher (3.6 vs 1.9 h/day). Sleep duration was longer in industrialised (6.8–7.6 vs 6.0 h/night) with similar or higher regularity (72–80% vs 69%). Conclusions: Industrialisation appears to primarily erode movement efforts and increase prolonged standing, while leaving rest behaviours (sitting and sleep) comparatively intact, suggesting a hierarchy of behavioural resilience within the 24-hour cycle. Implications for Policy and Practice: Policy priorities may benefit from acknowledging the physical activity intensity and posture-related behavioural roots of chronic disease.

United States

Moving time matters: differential effects of movement behaviors reallocations on multiple domains of development

AUTHORS

Miranda Tassitano, R.[1], Lemos, L.[2], Clark, C.[3], Henrique, R.[4], Tassitano, R.[5], Lemos, N.[6], Luz, L.[7], Gaya, A.[8], Mota, J.[9], Pacheco, A.[4]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*
[2]*Lusófona University*
[3]*Department of Life and Sport Sciences; Birmingham City University*
[4]*Federal University of Pernambuco*
[5]*Department of Kinesiology and Community Health; University of Illinois Urbana - Champaign*
[6]*Federal University of Vale do São Francisco*
[7]*Federal University of Alagoas*
[8]*Federal University of pelotas*
[9]*Faculty of Sports, University of porto*

BACKGROUND: Several studies have sought to determine an optimal time allocation among 24-hour movement behaviours to maximize health benefits, although findings remain inconsistent. This study aimed to: a) investigate the dose-response effects of a continuum of time reallocations among movement behaviors on physical, motor, cognitive, and socio-emotional outcomes in preschool-aged children; and b) to identify the optimal amount of time that should be reallocated to maximize children´s developmental outcomes. METHODS: The sample comprised 223 preschoolers (4–5 years-old) enrolled in public early childhood education centers in Petrolina, Brazil. Movement behaviors were assessed using accelerometry, sleep was evaluated by parent report. Developmental outcomes included physical fitness (PREFIT Battery), gross motor skills (TGMD-3), functional capacity (StuG), fine motor skills (9-hope Pegboard Test), executive functions and pre-academic skills in maths (EYT), and behavioural self-regulation (CSBQ). Compositional data analysis was used to examine the relationships between movement behaviors and developmental outcomes SR, and and isotemporal analysis with second-degree polynomial regression. RESULTS: The 24h movement composition explained variation in almost all developmental outcomes (from 7.1 to 34.9%), except fine motor skills and working memory. Isotemporal substitutions followed non-linear and asymmetric dose–response patterns, with optimal time reallocations ranged from 9.5 to 73.5 minutes, depending on the specific outcome and the behaviour being reallocated. CONCLUSION: Future interventions and guidelines may benefit from greater flexibility, acknowledging that optimal movement behaviour allocations may differ across developmental domains and contexts. Longitudinal and intervention studies are warranted to test these associations prospectively.

United Kingdom

Long-term device-based physical activity measurement in adolescents: Analysis of SCAMP cohort assessing its additional value

AUTHORS

Ricardo, L.[1], Cheng, L.[2], Shen, C.[2], Larsen, S.[3], Hindocha, C.[3], Stanley-Haga, J.[3], B. Smith, R.[2], B Toledano, M.[2], van Sluijs, E.[4]

AFFILIATIONS

[1]*Loughborough University*

[2]*Mohn Centre for Children's Health and Wellbeing, School of Public Health; MRC Centre for Environment and Health, Department of Epidemiology and Biostatistics, School of Public Health; NIHR Health Protection Research Unit in Chemical and Radiation Threats and Hazards; and NIHR Health Protection Research Unit in Radiation Threats and Hazards, Imperial College London, UK*

[3]*Mohn Centre for Children's Health and Wellbeing, School of Public Health, Imperial College London, UK*

[4]*School of Sport, Exercise, and Health Sciences - Loughborough University, UK; IMS Epidemiology - University of Cambridge, UK*

Background: Device-based physical activity (PA) research has traditionally used a 7-day measurement period. Evidence on longer-term assessment is limited. Purpose: To evaluate the added value of a 60-day Fitbit PA protocol compared with shorter monitoring periods in adolescents. Methods: The Study of Cognition, Adolescents and Mobile Phones (SCAMP) is a prospective cohort across Greater London schools (2014). Participants aged 16-22 years (2024-2026) wore Fitbit Inspire 3 wristband for ≤60 days, with ≥7 valid days (≥10h/day) required for inclusion. Average step counts and proportion achieving ≥10,000 steps (10K) were compared across 7/14/30/60-day windows using paired t-tests, intraclass correlation coefficients (ICC), and Bland-Altman (B&A). Week-to-week consistency and trajectories were calculated using Within-Subject Coefficient of Variation and Group-based Trajectory Modelling. Results: Among 588 adolescents (58.4% female) with valid data, 140 (23.8%) wore the device for 60d (wear-time: median=52, IQR=26). Mean steps (m=8464.3, SD=4371.8) were underestimated in shorter periods (mean diff: 7d=-361, SE=162.7; 14d=-312, SE=125.9; 30d=-138, SE=68.3; 60d: Ref.), while prevalence of 10K steps (60d: 27.6%) showed no difference across time windows. Reliability results were excellent (ICC: 7×60=0.90; 14×60=0.94; 30×60=0.98). B&A revealed a downward bias for 7d when compared to 60d. Within-individual weekly steps varied by 24%, and mean steps was highest in week 7. Trajectory analysis identified 4 groups (linear polynomial): Stable 5K (32.1%, m=5167; SD=1170.9), Stable 8K (45.5%, m=8302; SD=1013.6), Stable 12K (17.6%, m=12155; SD=1167.2), Fluctuating 16K-18K (4.8%, m=17482; SD=1935.4). Conclusions: Shorter wear protocols provide reliable estimates of PA. However, longer-term protocols enable generation of additional metrics such as weekly variation and trajectories, enhancing understanding of adolescent PA patterns over time and enabling investigation of their importance for outcomes. Implications for Policy and Practice: This work provides evidence to guide decisions on monitoring duration in future device-based studies and surveillance systems.

Funding: MRC (MR/V004190/1, MR/S019669/1, MC_UU_12015/7); NIHR (091/0212, 200922, 207424)


Sweden

Ethnographic Methodologies in Physical Activity Research: Opportunities, Challenges, and Future Adventures

AUTHORS

Hoy, S.[1]

AFFILIATIONS

[1]*The Swedish School of Sport and Health Sciences*

Purpose This presentation examines ethnographic methodologies in physical activity research, highlighting their ability to capture the complexity of human movement within sociocultural contexts. Unlike approaches that prioritize measurable outcomes, ethnography offers a lens for understanding lived experiences, meanings, and practices. Two cases illustrate this: youth activity in school settings and an exercise intervention for men on androgen deprivation therapy for prostate cancer. Methods Ethnography involvesprolonged engagement, participant observation, interviews, and qualitative analysis to explore how activity is entangled in everyday life. Both cases used immersive fieldwork and reflexive practices to examine relational dynamics, identity, and structural conditions while maintaining ethical rigor. Results The school-based case showed how activity is negotiated within institutional norms, peer cultures, and teacher expectations, revealing tensions between policy goals and lived realities. Ethnographic work identified barriers such as gendered norms and social hierarchies shaping participation beyond what quantitative measures capture. In the exercise intervention, insights showed how men adapt routines while managing side effects and identity shifts. These inquiries highlight social dimensions of adherence and acceptability, offering perspectives important for designing supportive interventions. Together, the cases demonstrate ethnography's capacity to explore the interplay of context, agency, and structure, insights often missed in standardized models. Discussion/Conclusion Despite its strengths, ethnography presents challenges. It is time-intensive, requiring trust-building and sustained presence, which can be difficult in resource-limited projects. Ethical considerations, including confidentiality and researcher positionality, are amplified when studying sensitive topics. Translating qualitative richness into actionable insights for policymakers poses tensions, as does balancing depth with generalizability. The demand for mixed-methods designs further complicates integration, raising questions about onto-epistemological compatibility. Future directions include reflexive practices, collaborative approaches, and dissemination strategies that honor participants' voices while meeting scientific rigor. By engaging with promises and limitations, this work aims to advance conversations and promote context-sensitive research in physical activity studies.

Norway

Sitting more, moving less? Fourteen years of device-measured physical activity among Norwegian adults

AUTHORS

Teinung, E.[1], Teinung, E.[2], Steene-Johannessen, J.[2], Hansen, B.H.[3], Kolle, E.[2], Dalene, K.E.[4], Ekelund, U.[5], Anderssen, S.A.[2]

AFFILIATIONS

[1]*Norwegian School of Sport Sciences*

[2]*Oslo Research Centre for Physical Activity and Population Health (ORC-PAPH), Norwegian School of Sport Sciences, Oslo, Norway*

[3]*Oslo Research Centre for Physical Activity and Population Health (ORC-PAPH), Norwegian School of Sport Sciences, Oslo, Norway and University of Agder, Kristiansand, Norway*

[4]*Norwegian Institute of Public Health, Oslo, Norway*

[5]*Oslo Research Centre for Physical Activity and Population Health (ORC-PAPH), Norwegian School of Sport Sciences, Oslo, Norway and Norwegian Institute of Public Health, Oslo, Norway*

Background: Surveillance of physical activity (PA) is essential to track secular trends, however large-scale device-based population studies on trends in PA are limited. Purpose: We aim to describe device-measured secular trends in moderate-to-vigorous PA (MVPA) and sedentary time (ST) among Norwegian adults using data from The Norwegian National Physical Activity Survey (NNPAS) collected in 2008-09, 2014-15 and 2020-22. Methods: Using a repeated cross-sectional design three representative samples of adults (18-64 years) and older adults (≥65 years), drawn from the National Population Register, were invited to participate. A total of 14,906 participants agreed (37 %). PA was assessed using ActiGraph accelerometers (GT1M and GT3X+ BT). Secular trends in MVPA and ST were analyzed using linear mixed models and adjusted for wear time, wear season and sex. We repeated analyses for the least and most active participants using wave- and age-specific quintiles of daily MVPA. Results: 13,511 (55.4% women) with valid measures were included in analyses. Over time MVPA and ST increased (5.9 min/day, 95% CI: 4.8, 7.0 and 13.6 min/day, 95% CI: 10.5, 16.7, respectively) among adults. Older adults showed smaller increase in MVPA (2.6 min/day, 95% CI: 0.3, 5.0) but a larger increase in ST (20.2 min/day, 95% CI: 13.8, 26.6). Across the total sample, the 20% most active increased MVPA by 10 min/day ($p<.001$), whereas the 20% least active increased only by 1-2 min/day ($p<.001$). Conclusions: Over time MVPA and ST increased among Norwegian adults and older adults. However, the secular increase in mean MVPA is mainly driven by larger absolute increases among the most active individuals. Implications for Policy and Practice: Future public health initiatives should prioritize identifying and targeting the least active individuals, where increased PA can yield greatest public health benefits.

Funding: The Norwegian Institute of Public Health and the Norwegian Health Directorate

LONG ORALS

7 Oct | From research to reality: implementing behavior change solutions

Session Chair: Kaitlyn Swinney

Canada

Identifying Implementation Strategies to Enhance Tele-exercise Participation in a Community-based Fall Prevention Program

AUTHORS

Fuentes Diaz, M.F.[1], Sibley, K.[2], Bouchard, D.[3]

AFFILIATIONS

[1]*University of New Brunswick*

[2]*College of Community and Global Health, University of Manitoba; George & Fay Yee Centre for Healthcare Innovation, University of Manitoba*

[3]*Cardiometabolic Exercise and Lifestyle Laboratory, Faculty of Kinesiology, University of New Brunswick, Canada.*

Introduction: Online exercise programs (tele-exercise) can increase access to physical activity and improve health and functional outcomes. Zoomers in Balance, an evidence-based community exercise program for adults 50+, offers both in-person and tele-exercise options; however, tele-exercise uptake remains limited, with only 6% of participants enrolling exclusively in tele-exercise and 41% use a hybrid format. We aimed to develop implementation strategies to increase the adoption and delivery of tele-exercise as a standalone or hybrid option. Methods: We applied Implementation Mapping steps 1-3, a framework for designing strategies to improve the adoption, implementation or maintenance of evidence-based interventions. 1) Barriers were identified via semi-structured interviews with 20 key informants (staff, leaders and participants) guided by the Consolidated Framework for Implementation Research and the Seniors Technology Acceptance Model; 2) Adoption/implementation outcomes, performance objectives, and matrices of change objectives were defined by the research group; 3) Implementation strategies were designed using Expert Recommendations for Implementing Change and the Behaviour Change Wheel. Subsequently, a survey was administered to key informants to prioritize strategies based on perceived importance and feasibility. Results: Key barriers to tele-exercise included both technology-acceptance (e.g., lack of digital literacy) and program implementation factors (e.g., lack of capability of innovation deliverers). Six implementation outcomes (e.g., participant adoption of tele-exercise classes), 13 performance objectives (e.g., learning to use videoconferencing platforms) and matrices of change objectives (e.g., demonstrating platform access skills) were generated. A total of 21 strategy groups were designed, of which 11 (e.g., digital literacy training) were prioritized based on perceived importance and feasibility. Conclusion: This systematic, theory-driven approach has shaped a comprehensive set of implementation strategies, in collaboration with key informants, to strengthen tele-exercise delivery and participation. The next steps will focus on developing strategy materials and testing their effectiveness in a trial to improve tele-exercise adoption and delivery within the program.

Australia

Why Choose to Move?: Participant motivations for engaging with a behaviour change program

AUTHORS

Tiedemann, A.[1], O'Rourke, S.[2], Ramsay, B.[2], Melgaard, L.[3], Earls, T.[3], West, C.[2], Sherrington, C.[2]

AFFILIATIONS

[1]*The University of Sydney*
[2]*The University of Sydney, Australia*
[3]*SHARE, Sydney, Australia*

Background: Low physical activity among older adults contributes to reduced function and increased risk of falls. Over half of older Australians are insufficiently active. Choose to Move is a 3-month community-based physical activity support program developed in Canada, co-designed with older adults to enhance motivation and promote social connection. Purpose: This study aims to adapt, implement, and evaluate Choose to Move in Australia, and examine what motivates older adults to participate. Methods: This implementation study targets adults aged 50+ who would like support to increase their physical activity. Participants develop a personalised activity plan and attend eight coach-led group sessions on healthy ageing topics, including fall prevention. Sixteen programs will be delivered through community organisations across Sydney, Australia, with 10–16 participants/group (n=160). Program materials are adapted for the Australian context and the fall prevention content has been enhanced. Quantitative and qualitative methods will assess program effectiveness and explore participant motivations. Results: Since December 2024 110 participants have been recruited (mean age 70, 91% female, 37% with history of falls in past 3 months). Preliminary results show the key motivators for participation include desire to improve physical activity level (38%), receive support and have accountability (28%), be educated and get resources on healthy ageing and habit formation (25%) followed by social connection (6%) and mental wellbeing (3%). Social connection and enjoyment also strongly influenced ongoing engagement, with many participants identifying the value of the group dynamics and structured support, as reported in post-study questionnaires and interviews. Conclusions: Choose to Move offers a promising, scalable model to support physical activity and reduce falls and social isolation in older Australians. Implications for Policy and Practice: Understanding motivational drivers enhances program design and implementation, contributing to improved engagement and public health impact. Funding: NHMRC-CIHR Healthy Cities Implementation Science Team Grant

Ireland

Understanding effective implementation of Physical Activity Programmes: The I-PARC experience

AUTHORS

Rocliffe, P.[1], Escolme, S.[2], Barrero, A.[2], O' Brien, S.[3], O Hehir, C.[4], D'Arcy, L.[5], H Murphy, M.[6], O' Donoghue, G.[7], Corry, M.[8], Murphy, N.[9], Woods, C.[2]

AFFILIATIONS

[1]*University of Limerick*

[2]*Department of Physical Education and Sport Sciences, Physical Activity for Health Research Centre, University of Limerick, Limerick, Ireland*

[3]*Health Service Executive*

[4]*Department of Heath*

[5]*Office of the Vice President for Sustainability, Technological University Dublin*

[6]*University of Ulster; University of Edinburgh*

[7]*School of Public Health, Physiotherapy and Sports Science, University College Dublin*

[8]*Sport Ireland*

[9]*Faculty of Health Sciences, South East Technological University, Ireland*

Background: Physical inactivity remains a major public health challenge globally. Although many physical activity programmes (PAPs) are evidence-based, impact is limited in real-world settings due to poor contextual fit, inadequate adaptation, and weak implementation planning. These challenges lead to ineffective delivery and exacerbate health inequalities Purpose: The Irish Physical Activity Collaboration (I-PARC), a national network of researcher, policymakers and practitioners aimed to develop, apply and evaluate and evidence-informed, process for selecting, adapting, and implementing evidence-based PAPs across real-world settings in Ireland. Methods: A multi-phase, mixed-methods design was employed across five implementation sites seeking Active City status (Cork, Dublin, Galway, Limerick, Waterford). Existing evidence-based PAPs were identified and organised into a physical activity (PA) repository to support PAP selection and implementation. Using the IT-FITS toolkit, participatory adaptation methods involved local stakeholders to tailor selected PAPs to contextual needs while preserving core programme functions. Guided by the Consolidated Framework for Implementation Research (CFIR), implementation strategies were co-developed to address identified local barriers and constraints, producing site-specific implementation plans. Implementation processes were evaluated using both implementation and intervention outcome measures. Results: A repository of evidenced based PAPs (n=21), suitable for community implementation was developed. Each site (n=5) was supported to select and adapt (M=8 adaptations per site) a programme aligned with local priorities. Stakeholder-led adaptation enhanced perceived feasibility, and acceptability, while tailored mitigation strategies addressed context-specific barriers related to resources, workforce capacity and delivery settings across sites (M=13 mitigation strategies per site). Conclusions: The systematic process supported clearer implementation planning and strengthened cross-sectoral collaboration. Embedding stakeholder engagement into the implementation process may enhance reach, effectiveness, and sustainability of PAPs and reduce implementation failure. Implications for Policy and Practice: This work provides researchers, policymakers and practitioners with a framework for adapting and implementing PAPs at scale while maintaining programme integrity. Funding: HRB, Ireland, HRB-APA-2022-39

Germany

Digital physical activity-related health care in Germany: Status quo of regulatory quality requirements and synthesized

AUTHORS

Lange, M.[1], Barisch-Fritz, B.[2], Peters, S.[3], Baumann, H.[4], Eckert, K.[1], Gabrys, L.[5], Heub, A.[1], Kernebeck, S.[6], Maas-Möhlmann, L.[7], Morf, H.[8], Richter, J.[9], Schaller, A.[3], Streber, R.[10], Sudeck, G.[11], Tallner, A.[12], Thiel, C.[13], Voelcker-Rehage, C.[14], Wollesen, B.[4]

AFFILIATIONS

[1]*IST University of Applied Sciences*
[2]*Karslruher Institute of Technology*
[3]*University of the Bundeswehr Munich*
[4]*German Sport University Cologne*
[5]*University of Applied Sciences for Sport and Management Potsdam*
[6]*University of Applied Sciences Muenster*
[7]*University of Bremen*
[8]*University Hospital Erlangen*
[9]*University Hospital Duesseldorf*
[10]*German Association for Health and Exercise Therapy*
[11]*University of Tuebingen*
[12]*Center of Telemedicine*
[13]*Bochum University of Applied Sciences*
[14]*University of Muenster*

Introduction Digitalization is transforming healthcare comprehensively and creating new and complementary applications in all healthcare contexts. Digital physical activity-related health care services (dbVL) are highly significant scalable offerings, even though their quality and effectiveness are regulated and evaluated in a very heterogeneous manner. Purpose The aim of this work is to systematically map the conceptual classification of dbVL, its current status quo, and the quality-requirements in healthcare contexts. Method Existing perspectives on physical activity-related health care and two classification systems (WHO-CDISAH, NICE) served as the basis for conceptual classification. We systematically reviewed the legal framework in the care sectors and contexts, conducted a narrative research and functional classification of dbVL, and synthesized the quality and impact requirements. Results While the legal framework allows for the use of dbVL in all healthcare contexts, the analysis reveals substantial sectoral heterogeneity and fragmentation in the requirements for dbVL. Overall, regulatory requirements focus primarily on technical or data security aspects, while professional- and content-related aspects remain underrepresented and relate primarily to traditional analog care services. This results in relevant differences in quality assurance, evidence generation, and the practical implementation of dbVL across healthcare contexts. Conclusion The results underline the need for uniforming the understanding of quality and effectiveness for dbVL across all healthcare-contexts. Future regulatory approaches should integrate dbVL-related science expertise, user-centered development models, and technology-appropriate evaluation frameworks. This underscores the necessity for further research on specific efficacy mechanisms, implementation strategies, and the comparative evaluations of digital-analog PA interventions to inform policymakers. Implications for policy and practice At European and national level, the findings emphasize aligning digital health care services with emerging digital health governance. These should incorporate coordinated regulatory strategies and shared quality benchmarks for dbVL to actively reduce fragmentation, enhance cross-border comparability, and enable informed decisions by healthcare systems, providers, and payers.

France

Impact of three broadcasts of a social marketing campaign on parental support and physical activity

AUTHORS

fassier, P.[1], Tano, M.[1], Tessier, D.[2], Rostan, F.[1], Escalon, H.[1], Serry, A.J.[1]

AFFILIATIONS

[1]*Santé publique France*
[2]*University Grenoble Alpes*

Background: Given the low proportion of adolescents meeting physical activity guidelines, Santé publique France launched in September 2022 and re-broadcast in September 2023 and September 2024, a social marketing campaign, aimed at strengthening parental support to increase adolescents' physical activity. Purpose: To evaluate the impact of this triple campaign on parents on 1) determinants of parental support, 2) parental support, and 3) adolescents' physical activity. Methods: A longitudinal survey was conducted between July 2022 and October 2024 among 4,005 parents of adolescents aged 11-14 years, recruited by socio-demographic quotas through a national panel. Data were collected before the first broadcast and after each of the three subsequent broadcasts. Analyses focused on the 3,003 parents who participated in at least two waves including baseline. Campaign effects were estimated using multilevel logistic models with individual random effects. Results: Regarding determinants of parental support, associations were most important for parents who recognized the three campaigns, than those who recognized two or one, in comparison to those who did not recognized the campaign (p-trend<0.0001). For parental supports, the association was significantly higher when all three campaigns were recognized, rather than two or one (p-trend<0.0001, example for being physically active with him/her: 9.65[6.45-14.45], two vs none: 6.89[4.75-10.00], one vs none: 4.40[3.09-6.26]). For teenagers' physical activity, for example regarding the informal activities, the association was most important for parents who recognized the three campaigns (9.71[6.32-14.92], p<0.0001), than those who recognized two (7.07[5.05-9.89]), or one (4.86[3.58-6.59], p<0.001), in comparison to those who did not recognized the campaign. Conclusions: This evaluation confirms the effectiveness of a media campaign in strengthening parental support and promoting adolescents' physical activity. Implications for Policy and Practice: These findings emphasize the relevance of maintaining multiple rebroadcasts to maximize the impact of public health media interventions.

Chile

“Ponte de Pie” computer-prompts in office workers: pragmatic mixed-methods cluster randomized trial

AUTHORS

Leppe, J.[1], Roa, S.[1], Aguila, P.[1], Alvarez, G.[1], Sarmiento, O.L.[2]

AFFILIATIONS

[1]*Universidad Del Desarrollo*
[2]*Universidad de los Andes*

Background: Prolonged sitting is common in office work. Computer prompts are low-cost and scalable, but effects under pragmatic conditions may vary. Purpose: To assess the impact of a computer-prompt intervention (“Ponte de Pie”, Chilean Ministry of Health) on sedentary behaviour and health outcomes in office workers. Methods: Pragmatic mixed-methods, cluster randomized controlled trial clustered by two university institutions, with measurements at baseline (T0), 3 months (T1) and 6 months (T2). Prompts occurred every 60 minutes, encouraging structured 2-minute active breaks with postponement/dismissal options. Outcomes included sedentary behaviour (accelerometry and self-report), musculoskeletal outcomes (pressure pain threshold [PPT] and Nordic symptoms), and cardiometabolic markers. Group×Time effects were tested with adjusted mixed-effects models (age, sex, occupational category). Dose–response analyses within the intervention group used continuous adherence (0–1; 0=lowest, 1=highest). Embedded focus groups examined adherence determinants using COM-B. Results: Participants n=102 office-workers. Baseline sedentary behaviour was 50.5 minutes/hour of working day. Group×Time effects showed no statistically significant between-group differences in accelerometry-derived outcomes; however, the intervention group reported less sitting time than the control group. For musculoskeletal outcomes, the adjusted PPT Group×Time interaction was significant: Intervention×T1 β=0.67 (95% CI 0.34–0.99) and Intervention×T2 β=0.56 (95% CI 0.23–0.89), relative to Control at T0, indicating reduced pain sensitivity. In dose–response models, adherence×T1 was significant (β=0.76; 95% CI 0.26–1.26). Cardiometabolic markers showed limited consistency across indicators. Qualitative findings indicated adherence was shaped by workflow demands and organisational norms (Opportunity), perceived feasibility and self-regulation (Capability), and motivational factors including perceived benefits and fatigue (Motivation). Conclusions and implications: In this pragmatic trial, results were heterogeneous, but the intervention improved pain sensitivity. With “Ponte de Pie” becoming available for installation in Chilean workplaces, prompts are scalable tools to support employer commitment to worker health and could be adapted in other countries. Funding: Superintendence of Social Security, Chile (grant number#280–2022).

United States

Barriers and Facilitators for Implementing Evidence-Based Place-Activation Strategies for Physical Activity in Mexico

AUTHORS

Lopez-Soto, A.[1], Montero-Zamora, P.[1], Hernández-Alcaraz, C.[2], Garza, C.[1], Le, S.[1], Kepper, M.[3], Brownson, R.[3], Martínez, A.M.[2], Martinez, M.[2], Gonzalez, O.[2], Orozco-Lapray, D.[1], Brown, S.[4], Jáuregui, A.[2], Salvo, D.[1]

AFFILIATIONS

[1]*The University of Texas at Austin*
[2]*National Institute of Public Health of Mexico*
[3]*Washington University in St. Louis*
[4]*UTHealth Houston School of Public Health at Austin*

Background: Although multiple evidence-based place-activation strategies (EBPAS) have proven effective in promoting physical activity in urban settings, most of them come from high-income countries (HICs). Implementation barriers and facilitators remain unknown for low- and middle-income countries like Mexico. Purpose: Identify stakeholders perceived barriers and facilitators for implementing HIC-derived EBPAS in low-income urban communities in Mexico. Methods: Semi-structured interviews (~67.5 minutes) were conducted with local stakeholders (i.e., multisectoral policy makers, non-governmental agency representatives, and community leaders) across ten cities in Mexico. Participants evaluated 13 EBPAS across engagement, programming, promotion, and access for their feasibility and adaptability in low-income urban neighborhoods. A general inductive approach was used to identify major barriers and facilitators at the upper thematic level within the Mexican context. Results: Participants (n=31) were predominantly female (64.5%), educated (74.2% university or more), and employed in public-sector settings. Preliminary findings indicated that five cross-cutting barriers and five facilitators emerged consistently across settings. Barriers included structural poverty and life demands, unevenly distributed infrastructure, safety concerns limiting use of parks and school facilities, limited implementation capacity due to funding and staffing constraints, and weak cross-sector coordination with insufficient operational guidance. Facilitators included strong community ownership through councils and local leadership, high acceptability of environmental and access improvements, cultural fit of multi-purpose programming beyond physical activity alone, existing informal community practices that could be formalized, and the perceived value of adaptable strategies, particularly for engaging youth. Conclusions: Across diverse selected contexts, activation of public physical spaces depended less on awareness of physical activity benefits and more on the feasibility of implementing EBPAS within existing structural constraints. Implications for Policy and Practice: Policies should prioritize sustained investment in infrastructure, safety, and cross-sector coordination. Practice efforts should emphasize community governance, local adaptation, and alignment with existing community assets. Funding: NIH (R01MD019155)

Colombia

“Futbolito for All” Program: Promoting Physical Activity Among Latino Youth

AUTHORS

Mejía-Grueso, J.[1], Kulesza, C.[2], McKay, S.L.[3], Ramírez Varela, A.[4]

AFFILIATIONS

[1]*Global Observatory for Physical Activity - GoPA!*

[2]*Baker Institute for Public Policy, Rice University, Houston, TX, USA*

[3]*Department of Pediatrics, McGovern Medical School, The University of Texas Health Science Center at Houston (UTHealth Houston), Houston, TX, USA; Baker Institute for Public Policy, Rice University, Houston, TX, USA; Pediatric Population Health Initiative, McGovern Medical School, The University of Texas Health Science Center at Houston (UTHealth Houston), Houston, TX, USA*

[4]*Department of Epidemiology, School of Public Health; Department of Pediatrics, McGovern Medical School; Center for Health Promotion and Prevention Research; Institute for Implementation Science; The University of Texas Health Science Center at Houston (UTHealth Houston), Houston, TX, USA.*

Background: Fewer than one in four U.S. children meet national physical activity guidelines, with Latino youth among the least active. Soccer plays a culturally significant role in many Latino communities; however, after-school programs leveraging soccer to promote physical activity remain limited. Purpose: To assess the feasibility, acceptability, and preliminary impact of a culturally tailored, school-based soccer program on physical activity among Latino children. Methods: This study was conducted at two elementary schools in Harris County, Houston, Texas. The five-week after-school program, “Futbolito for All”, enrolled students aged 8-12 years. Baseline and post-program surveys from students, parents, and school staff collected sociodemographic characteristics, social determinants of health, and physical activity using the Physical Activity Questionnaire for Older Children (PAQ-C). Physical activity during sessions was directly observed using the System for Observing Fitness Instruction Time (SOFIT). Results: The program enrolled 93 students (73.1% male and mean age of 11.2 years). At baseline, 19.9% of students reported meeting the recommended 60 minutes of daily physical activity. Post-intervention PAQ-C scores showed a significant positive shift in physical activity levels, with 69% of students staying or moving into the moderate level after the program ($p = 0.042$). Program satisfaction was high, with 74% of students and 91% of parents rating the program as excellent. School staff reported strong program fit and feasibility for continuation. Conclusions: “Futbolito for All” was feasible and demonstrated promising potential to increase physical activity in school-based settings, with particular relevance for Latino youth. Implications for Policy and Practice: Culturally tailored, school-based sports programs may offer a scalable strategy to reduce physical activity disparities among Latino children in underserved communities. Funding: UTHealth Houston PRIME Award and Rice University’s Baker Institute for Public Policy Provost’s Texas Medical Center Collaborator Seed Fund Program.

LONG ORALS

7 Oct | Building active futures: children, youth, families and early life movement

Session Chair: Ashleigh Johnson

United States

Comparing implementation of Whole-of-school components by school level in the United States

AUTHORS

Walker, T.[1], Craig, D.[1], Lanza, K.[2], Pfledderer, C.[2], Lee, M.[1], Pavlovic, A.[3]

AFFILIATIONS

[1]*UTHealth Houston School of Public Health*

[2]*UTHealth Houston School of Public Health, Austin Campus*

[3]*Kenneth H. Cooper Institute at the Texas Tech University Health Sciences Center*

Background The World Health Organization recommend schools use a whole-of-school approach for physical activity (PA) promotion. Despite its importance, limited information exists on how whole-of-school components are implemented across school levels. Purpose To compare implementation of whole-of-school PA components by school level among a sample of U.S. schools. Methods This observational study used data from schools participating in the NFL Play60 FitnessGram project. A school representative from each participating school completed a survey via Qualtrics at the end of the 2024-2025 school year. The survey included questions assessing the implementation of each whole-of-school PA component (physical education (PE), recess, classroom-based PA, before- and afterschool programming, and active transport). We compared implementation of whole-of-school components by school level using chi-square analyses. Results The sample included 378 schools (260 elementary, 58 middle, and 60 high schools) from 23 U.S. states. Eleven percent of elementary schools met PE recommendations, compared to 52% of middle and 77% of high schools ($x^2=128.5$, $p<0.001$). Afterschool PA programming was offered by 60% of elementary schools, compared to 83% of middle and 73% of high schools ($x^2=13.0$, $p=0.01$). Ninety-one percent of elementary schools offered daily recess, compared to 22% of middle and 7% of high schools ($x^2=277.4$, $p<0.001$). Classroom-based PA was used by most teachers in 37% of elementary schools, compared to 16% of middle and 10% of high schools ($x^2=35.4$, $p<0.001$). There were no differences for before-school or active transport programming across school levels. Conclusions School level was associated with implementation of distinct whole-of-school components. Elementary schools may benefit from improvements in PE and afterschool programming, whereas middle and high schools could enhance implementation of classroom-based physical activity strategies and recess. Implications for Policy and Practice These findings highlight the importance of surveillance and data-driven strategies to identify targeted opportunities for strengthening whole-of-school PA implementation at scale.

Switzerland

The role of physical activity in the relationship between stressful life events and mental health

AUTHORS

Lenze, L.[1], Lenze, L.[2], Bélanger, M.[3], Doré, I.[4]

AFFILIATIONS

[1]*University of Bern*

[2]*Institute of Social and Preventive Medicine, University of Bern, Bern, Switzerland*

[3]*Faculté de Médecine et des Sciences de la Santé, Centre de Formation Médicale du Nouveau Brunswick, IMPACTS Lab and Vitalité Health Network, Université de Sherbrooke, Sherbrooke, QC, Canada*

[4]*School of Public Health, Université de Montréal, Montréal, QC, Canada Centre de Recherche du CHUM, Montréal, QC, Canada School of Kinesiology and Physical Activity Sciences, Faculty of Medicine, Université de Montréal, Montréal, QC, Canada*

Background: Research suggests that physically active individuals have better mental health following stressful life events. However, study findings are mixed regarding whether physical activity (PA) could modify or explain the association between stressful life events and future mental health. Purpose: We aimed to assess whether PA mediate the association between stressful life events and mental health in adolescents. Methods: We used data from 361 participants (Mage=15.6±0.6) of the MATCH study. The MATCH study is a longitudinal investigation of PA practice in youth (2011-ongoing) in the province of New Brunswick, Canada. Using the cycles 25-29 (2016-2017), mediation analyses within the counterfactual framework were used to decompose the total effect (TE) of stressful life events on mental health into the natural direct effect (NDE) and the natural indirect effect (NIE). The model adjusted for age, gender, neighborhood income and past mental health. Results: Stressful life events were associated with lower positive mental health (TE: β⁅95% CI] = -0.45 [-0.75, -0.14]). Mediation analyses suggested a natural direct effect of stressful life events on positive mental health (NDE: β⁅95%] = -0.47 [-0.77, -0.16]), but no indirect effect through PA (NIE: β⁅95% CI] = -0.02 [-0.07, 0.01]). Conclusions: The results indicate that the association between stressful life events and mental health is largely direct, as the TE is mostly composed of the NDE. PA did not appear to have a meaningful mediating role. Implications for Policy and Practice: Approaches to youth mental health may therefore need to consider strategies that address stressful life events directly, alongside the promotion of PA for its general mental health benefits. Funding: Social Sciences and Humanities Research Council of Canada, Sport Participation Research Initiative, New Brunswick Health Research Foundation.

Canada

International Comparison of Parental Tolerance of Potential Risk in Children's Active Play

AUTHORS

Faulkner, G.[1], Jelleyman, C.[2], Jerebine, A.[3], Nesbit, R.[4], Barnett, L.[3], Belanger, M.[5], Brussoni, M.[1], Dodd, H.[6], Duncan, S.[2], Gunnell, K.[7], Fitzgibbon, L.[8], Tremblay, M.[9], Larouche, R.[10]

AFFILIATIONS

[1]*University of British Columbia*
[2]*Auckland University of Technology*
[3]*Deakin University*
[4]*University of Exeter*
[5]*Université de Sherbrooke*
[6]*University of Reading*
[7]*Carleton University*
[8]*University of Stirling*
[9]*CHEO Research Institute*
[10]*University of Lethbridge*

Background: Low and declining participation in active outdoor play and restrictions in independent mobility could be related to changing parental tolerance of risk (PToR). Purpose: Given the potential for cultural variation in risk tolerance, the objective of this study was to compare parental tolerance of risk in four countries—Australia, Canada, New Zealand, and the United Kingdom. Methods: This secondary data analysis included data from five independent samples collected in New Zealand (2015 and 2018), the United Kingdom (April 2020), Canada (December 2020) and Australia (2022/2023). The Tolerance of Risk in Play Scale (TRiPS; Hill & Bundy, 2014) was used to assess PToR in all samples. Higher scores indicate a higher tolerance of risk (0-184 possible total).Data were collected through online questionnaires with samples ranging from 645-2291. Average age of children in the total sample (n=7939) was 9.15 years (SD=2.01). Descriptive and logistic regression analyses were used to compare PToR across countries, and to identify associations with gender and age. Results: The results showed differences in parental risk tolerance. Differences were most pronounced comparing Australia (TRiPs total [scaled] = 67.20) and New Zealand (88.46) samples with indication of pronounced differences in items reflecting the risk play categories of 'dangerous tools' and 'great heights'. Parents in Canada (76.89) and the UK (79.92) exhibited intermediate levels of tolerance. There was no difference in risk tolerance between male and female parent/caregivers. Parental risk tolerance was higher for boys compared to girls. Age of the child was positively associated with risk tolerance. Conclusions: We found international variation in PToR despite the similar cultural contexts of the countries surveyed. Findings may be explained by sampling differences and survey timing. Implications for Policy and Practice: Further international comparisons would be informative in exploring macro-influences on parental perceptions of risk, and indirectly, child play and physical activity.

Denmark

Co-Creating a Systems Map with Adolescents: Combining Participatory Research and Systems Thinking in YoPA Denmark

AUTHORS

Madsen, L.[1], Skau Pawlowski, C.[2], Schipperijn, J.[2], Chinapaw, M.J.[3], Altenburg, T.M.[3]

AFFILIATIONS

[1]*University of Southern Denmark*

[2]*Active Living, University of Southern Denmark*

[3]*Public and Occupational Health, Amsterdam UMC Location VUmc, Amsterdam, The Netherland*

Background: Many adolescents, particularly those in underserved neighborhoods, do not meet physical activity guidelines, increasing their risk of non-communicable diseases. Physical inactivity is a complex, systems-driven problem that requires approaches capturing adolescents' own perspectives. Purpose: The purpose of this study was to demonstrate how participatory action research and systems thinking can be combined in practice to co-create a systems map of adolescents' outdoor physical activity. Methods: Using the Youth Centred Participatory Action (YoPA) Denmark project as a case example, participatory action research and systems thinking were applied in two youth clubs in underserved neighborhoods. Adolescents participated as co-researchers, drawing on their lived experiences to co-develop a systems map of outdoor physical activity. Results: The systems map identified five key drivers of outdoor physical activity: sense of belonging, maintenance of outdoor spaces, peer influence, accessible and attractive spaces, and the role of youth club staff. These drivers illustrate the interrelated and multi-level nature of influences on adolescents' outdoor physical activity. Conclusions: Combining participatory action research and systems thinking provides valuable insights into the mechanisms shaping adolescents' outdoor physical activity. The co-created systems map offers a foundation for developing context-specific interventions in close collaboration with adolescents. Implications for Policy and Practice: Policies and interventions should address the interconnected drivers of adolescents' outdoor physical activity rather than relying on single-component approaches. Participatory and systems-based methods that actively involve adolescents can support the development of context-sensitive interventions, particularly in underserved neighborhoods. A co-created systems map provides a practical foundation for guiding local action and cross-sector collaboration. Funding: This work was supported by the European Union's Horizon Europe research and innovation programme under grant number 101095423.

United States

Prioritizing action for Active Middle School Communities: A blended Delphi and Group Concept Mapping study

AUTHORS

Hoelscher, D.[1], Ganzar, L.A.[2], Swinney, K.[3], Springer, A.[1], Karner, A.[3], Hunt, E.[1], Garza, C.[3], Le, S.[3], Bentley, S.[1], Salvo, D.[3]

AFFILIATIONS

[1]*UTHealth Houston School of Public Health*
[2]*Professional Data Analysts*
[3]*The University of Texas at Austin*

Background Adolescents worldwide are insufficiently active. In the U.S., active transport to school is at an all-time low. Previous interventions have prioritized active leisure and school-based strategies, with limited attention to active transport and community-level approaches. Purpose Identify key barriers, facilitators, and subsequent priority actions for community-level physical activity promotion in low-income middle school neighborhoods, using input from multi-sectoral experts and stakeholders. Methods This work is part of the discovery phase of the Active Middle School Communities study and will inform the co-creation of community-level interventions to be tested with a cluster-randomized trial. Participants included academic, government, not-for-profit, and private sector leaders from the U.S., with expertise in public health, education, urban planning, transportation, parks and recreation, environmental justice, and community engagement. Two Delphi online-survey rounds were conducted for (1) brainstorming, and (2) importance and feasibility rankings (5-point Likert scales). Delphi data were analyzed using Group Concept Mapping (GCM) multi-dimensional scaling methods (GroupWisdomTM, Ithaca, NY). A virtual workshop was convened to interpret Delphi/GCM findings, build consensus, and prioritize actions. Results In round 1, Delphi respondents (n=76) identified 95 unique barrier and opportunity statements, of which 21 (22%) were ranked as being highly important and feasible in round 2 (n=36). During GCM analysis, and using the ratings' correlations, the 95 statements were grouped into 29 nodes, and 8 domains emerged: policy, social norms, built environment, community resources, safety, knowledge, technology, and time. During the consensus-building workshop (n=20), 8 priority actions were identified, including all domains except technology and time. Conclusions Multi-sectoral experts and stakeholders prioritized systems-level approaches for both immediate and long-term physical activity promotion in U.S. urban middle school communities. Implications for Policy and Practice Findings and methods can be used by decision-makers, practitioners, and researchers to identify feasible community-level physical activity intervention opportunities with high impact potential. Funding NIH-R01MD019423.

United States

Who knows best? Essential Playground Features to Maximize Active Play according to Stakeholders versus Parents

AUTHORS

Reininger, K.[1], Garza, C.[2], Le, S.[2], Morrison, B.[2], Miao, F.[2], Hunt, E.[3], Jowers, E.[2], Salvo, D.[2]

AFFILIATIONS

[1]*University of Texas at Austin*

[2]*The University of Texas at Austin, Austin, TX, USA*

[3]*University of Texas Health Science Center at Houston School of Public Health in Austin, Austin, TX, USA*

Background Playgrounds are key settings for children's active play. Most playground design research for maximizing active play has been conducted in Europe, where playground design standards and urban environments vary substantially from those of the U.S. Purpose Examine which playground features are essential for optimizing playground visitation from the perspective of key stakeholders versus parents/caregivers in Austin, Texas, USA. Methods Qualitative, semi-structured interviews were conducted with playground stakeholders in Austin, Texas, USA. Interviewees were probed about "key ingredients" that playgrounds should have to maximize visitation and active play. Parent/caregiver data were gathered through intercept surveys at six playgrounds in Austin, Texas, USA. Surveys included Likert scale agreement based statements on parent's perceptions of the availability/quality of multiple playground features, and playground use frequency. Stakeholder interview data were analyzed via thematic inductive coding. Fisher's-exact tests estimated associations between parental agreement of availability/quality of playground features and playground visitation frequency. Results Stakeholders (n=5) included physical activity and playground researchers, the playground design industry representatives, parks and recreation, and early child development professionals. Among stakeholders, features perceived as essential were: play structures/features for multiple child age-groups, for a diverse range of abilities, amenities for parents/caregivers, and shade. Among parents/caregivers (n=89), play structures/features for multiple child age-groups (p=0.007) and amenities for parents/adults (p=0.07) were associated with higher visitation, and a marginal direct association was observed for amenities for parents/caregivers. Conclusion Age-inclusive play features and amenities for parents appear critical for optimizing use of playgrounds in Austin, Texas, USA. Some features that stakeholders with purview on playground design decisions find important may not be essential to parents/caregivers. Implications for Policy and Practice Including parental perspectives in playground design processes may enhance exposure to active play opportunities for children.

Funding Partially supported by a gift from ForeverLawn USA to the People, Health, and Place (Salvo) Lab

United States

Do parental perceptions of public playgrounds influence children's levels of active and social play?

AUTHORS

Le, S.[1], Garza, C.[2], Morrison, B.[2], Hunt, E.[3], Jowers, E.[2], Salvo, D.[2]

AFFILIATIONS

[1]*The University of Texas at Austin*

[2]*The University of Texas at Austin, Austin, Texas, USA*

[3]*University of Texas Health Science Center at Houston (UTHealth Houston) School of Public Health in Austin, Austin, TX, USA*

Background: Playgrounds are key locations for active child play. In the U.S., parents/caregivers are the primary decision-makers determining children's playground use location and frequency. Purpose: Examine the associations of parent/caregiver perceptions of playground features with overall levels of usage, active play, and social play in playgrounds. Methods: SOPLAYGROUND, an adapted version of the System for Observing Play and Recreation in Communities, assessed total usage, active play, and social play in six playgrounds in Austin, Texas, USA. Intercept-surveys were administered to caregivers, responding to 4-point Likert-scale questions about their perception of playground features: safety, comfort, cleanliness, aesthetics, and inclusivity. Linear regression models tested associations between parent/caregiver perceptions of playground characteristics with average visitors, and with children engaged in active and social play. Neighborhood Income-stratified (low/high) analyses were also conducted. Results: Sixty SOPLAYGROUND observations were conducted (six per playground), and 89 parents/caregivers completed intercept surveys. Perceiving high availability of safety features was associated with higher playground visitation ($\beta=5.05\pm1.78, p=0.047$) and active play ($\beta=2.48\pm0.75, p=0.029$). High-parental ratings for social interaction promotive features were associated with more active ($\beta=5.99\pm1.14, p<0.001$) and social ($\beta=2.05\pm0.72, p=0.046$) play. High perceived availability of comfortable surfacing materials was associated with all outcomes (visitation:$\beta=12.05\pm4.20, p=0.046$, active play:$\beta=6.44\pm1.22, p<0.001$, social play:$\beta=2.20\pm0.77, p=0.046$). High perceived availability of features supporting play by children of all ages (age-inclusive features) were associated with overall visitation and active play in high-income neighborhoods but inversely associated with active play in low-income neighborhoods. Conclusions: More total, active, and social children were observed in playgrounds rated as high for safety-, comfort-, and social interaction-enhancing features by parents/caregivers. Future research should assess whether age-inclusive features maximize active play in all settings. Implications for Policy and Practice: Integrating parental/caregiver preferences to playground design decisions could help maximize their health-enhancing potential. Funding: Partially supported by a gift from ForeverLawn USA to the People, Health, and Place (Salvo) Lab.

Switzerland

Physical Activity and Sedentary Behaviors as Personal Resources in Teacher Well-being: A Longitudinal Study

AUTHORS

Lentillon-Kaestner, V.[1], Guillet-Descas, E.[2], Gudin, M.[1], Cece, V.[1], Bourdillon, N.[1]

AFFILIATIONS

[1]*Haute école pédagogique du canton de Vaud*
[2]*UFR-STAPS Lyon 1*

Background: Teachers' well-being is crucial for occupational health and educational quality. According to the Job Demands-Resources (JD-R) and Conservation of Resources (COR) theories, sustained job demands increase exhaustion and burnout risk, while job-related and personal resources foster engagement and buffer these negative effects. Physical Activity (PA) and reduced Sedentary Behaviors (SB) are recognized as key personal resources for burnout prevention, but longitudinal evidence in tertiary-level teachers remains limited. Purpose: Using a psychophysiological approach, this study examined over one academic year how job demands, organizational resources, PA and reduced SB, as personal resources relate to burnout and work engagement in tertiary level teachers. Methods: Data were collected at five timepoints across one academic year among 35 tertiary-level teachers (54,3% women; mean age 47 years). At each timepoint, participants completed questionnaires assessing burnout, work engagement, job demands (e.g., workload), and organizational resources (e.g., autonomy, social support). PA levels and SB were objectively measured via accelerometry using smartwatches. Multilevel regression models using robust maximum likelihood estimation were used to estimate within-person changes over time and to test whether PA and SB buffer the association between job demands/resources and burnout, as well as their contribution to sustained engagement. Results: Higher job demands predicted increase in burnout over time, while greater decision-making autonomy predicted higher engagement and lower burnout. Low-intensity PA and reduced SB moderated the impact of job demands on teacher burnout and engagement, and were independently associated with lower burnout and higher engagement. Conclusions: Longitudinal evidence indicates that low intensity PA and reduced SB act as personal resources that mitigate job demand effects and support sustained engagement among tertiary teachers. Implications for Policy and Practice: Interventions should strengthen organizational resources (e.g., autonomy and support) and promote low-intensity PA and reduce SB in academics' daily routines. Funding: Swiss national funding (n°10HW-9_228550/1)

SHORT ORALS

7 Oct | Advances in measuring physical activity across contexts and populations

Session Chair: Masamitsu Kamada

United Kingdom

Assessing the impact of varying accelerometer epoch length on daily active time estimation

AUTHORS

Langford, J.[1]

AFFILIATIONS

[1]*ActivInsights*

Background: In surveillance and validation studies, where accelerometers capture objective measures of physical behaviours, it is common practice to summarise data in fixed duration epochs. The epoch is for the convenience of the analysis, and its length is selected based on the specific research objectives. For example, studies on active behaviours in children typically use shorter epochs while studies in elderly populations and those investigating sedentary time use longer epochs. There is no universal criterion measure for the accelerometer-derived estimates of physical activity. Instantaneous force and resistance can be measured over a couple of seconds; indirect calorimetry provides minute-to-minute outputs and doubly labelled water gives results over multiple days. So, while it is known that different epoch lengths impact outputs, quantifying the effects remains challenging. Purpose: This study explores the comparative over- and under-estimation of time spent at different activity intensities when accelerometer data are summarised in different epoch lengths using independently derived, variable duration events as a benchmark. Methods: Mean wrist acceleration was simultaneously summarised using data-driven events and epochs of 1, 5, 15, 30 and 60 seconds using a mixed-population verification dataset of 1,500 days. The epoch outputs were compared using cumulative distribution plots to avoid the complications of threshold effects. Linear regressions were then performed on daily estimates at standard physical activity thresholds to model the comparative misclassification. Results: Preliminary results confirm that, compared to the benchmark, longer epochs under-estimate daily time in higher intensity activity and shorter epochs under-estimate less active time. Furthermore, the approach quantifies these differences to be as high as 20%. Conclusions & Implications for Policy and Practice: Caution is advised when translating findings between studies where different measurement epoch lengths have been used. Variable duration events provide a valid approach to avoid the compromises associated with fixed epoch length selection.

Canada

Required Days for Reliable Measurement of Physical Activity and Media Parenting Practices in Daily Diaries

AUTHORS

De-Jongh Gonzalez, O.[1], Nieuwenhuijs, E.C.[2], Mâsse, L.C.[2]

AFFILIATIONS

[1]*University of British Columbia & BC Children's Hospital Research Institute*

[2]*School of Population and Public Health, University of British Columbia, BC Children's Hospital Research Institute*

Background: Daily diary methods are increasingly used to capture physical activity and media parenting practices, yet the minimum monitoring duration needed for reliable estimation remains unknown. Purpose: To estimate the minimum number of daily diary days required to achieve reliability thresholds of ≥.70 and ≥.80 for mothers' and fathers' physical activity and media parenting practices during warmer/drier versus colder/wetter months. Methods: British Columbian parents (N=403; 40yrs; 59% mothers) of 2.5-6-year-olds completed 14 consecutive daily reports in either warmer/drier (April-September; n=184) or colder/wetter (October-March; n=219) months. Logistic mixed models were used to estimate intraclass correlation coefficients, and the Spearman-Brown prophecy formula was used to determine days needed to reach reliability targets. Results: A small subset of practices was most frequently reported across seasons (communicating enjoyment/importance of physical activity, active co-participation, clarifying screen time limits; ~33-40% of days), whereas treat-based controlling practices were rarely reported (~1.5-3.7% of days) in both seasons. Seasonal shifts were more apparent for physical activity than media practices (e.g., planning outdoor activity declined from ~30-32% to ~24-25% of days in colder/wetter months). Required monitoring days varied substantially by physical activity practice, especially high-involvement behaviors (active co-participation, planning outdoor activities, teaching a skill), which required >1 week for achieving reliability ≥.70 and often ≥2 weeks to reach ≥.80. In contrast, controlling/treat-based practices typically required ~1-3 days for both thresholds. Most practices (11/14) achieved reliability ≥.70 within ≤7 days across seasons and genders, but three practices required ~7-11 days. Mother-father and seasonal differences were practice-specific and not always in the same direction. Conclusions: Monitoring duration needs depend strongly on the specific parenting practice, with higher-involvement practices requiring more days. For study planning purposes, ~11 diary days appear sufficient to ensure reliability ≥.70 across practices, seasons, and genders, whereas achieving ≥.80 may require more days for select practices.

Sweden

Daily 24-Hour Heart Rate and Health-Lifestyle Ratings over 8 Weeks in Physically Demanding Jobs

AUTHORS

Ekblom-Bak, E.[1], Olsson, K.[2], Lind, J.[2], Spetz, L.[2], Hallman, D.[3], Södergård, O.[2], Larsen, F.[4], Väisänen, D.[2]

AFFILIATIONS

[1]*The Swedish School of Sport and Health Sciences*

[2]*The Swedish School of Sport and Health Sciences, Department of Health sciences*

[3]*Department of Occupational Health, Psychology and Sports Sciences, University of Gävle*

[4]*The Swedish School of Sport and Health Sciences, Department of Physiology, Nutrition and Biomechanics*

Background: Workers with physically demanding jobs have been shown to experience physical overload, especially when the workload exceeds their capacity for longer periods. This overload has been reflected by an impaired cardiovascular response, where elevated 24-hour heart rate (HR) is considered an important indicator. Other stressors related to poor lifestyle, health, and insufficient recovery may exacerbate this overload, but such associations have not been examined over longer observation periods. Purpose: To examine daily deviation from normal 24-hour HR in relation to health and lifestyle-related ratings over 8 weeks of monitoring among workers with physically demanding jobs. Methods: Seventeen workers (5 women) from a Swedish manufacturing company (mean age=41 yrs SD=9; mean VOmax=35.3 ml/min/kg, SD=6.9) with self-reported physically demanding jobs were observed for 8 weeks (totally 952 days observed). Participants wore a Garmin Forerunner 265 and completed daily ratings in an app using a 0–10 scale. Ratings included yesterday's physical work- and training load, work- and non-work-related mental stress, food intake, alcohol consumption, sleep, muscle fatigue, injury, illness, pain, mood, and recovery/energy levels. Mixed-effects models were used to estimate fixed effects for the associations between daily deviations in mean 24-hour HR from 8-week average and daily ratings over the 8-week period. Results: Higher alcohol consumption (0.90,$p<0.001$), yesterday's training load (0.83,$p<0.001$), pain hip/knee (0.63,$p=0.006$), physical workload (0.26, $p=0.05$), and poorer perceived recovery/energy levels (0.48,$p<0.001$), were associated with elevated 24-hour HR. Illness was associated with lower 24-hour HR (-0.46,$p=0.013$). Conclusions: Higher alcohol consumption, training load, physical workload, hip/knee pain, and poorer perceived recovery were significantly associated with elevated 24-hour HR, and illness status was associated with lower 24-hour HR. Implications for Policy and Practice: The present findings suggest that ratings of health, recovery, and lifestyle indicators may be a useful indicator of physical overload in workers with physically demanding jobs.

Funding: Forte, 2024-00865

Australia

Time use patterns among LGBQ adolescents: Longitudinal evidence form a national cohort in Australia

AUTHORS

Ross, M.[1], Thomas, G.[2], O'Flaherty, M.[2], Gomersall, S.[2], Perales, F.[3], Fortnum, K.[2], Maddren, C.[2], Woodforde, J.[2], Stylianou, M.[4]

AFFILIATIONS

[1]*The University of Queensland*

[2]*Health and Wellbeing Centre for Research Innovation, School of Human Movement and Nutrition Sciences, The University of Queensland*

[3]*Australian Research Council Centre of Excellence for the Digital Child*

[4]*School of Human Movement and Nutrition Sciences, The University of Queensland*

Background How adolescents allocate their time influences health, wellbeing, and social development, with effects that extend into adulthood. Lesbian, gay, bisexual and questioning (LGBQ) adolescents experience poorer mental and physical health than their heterosexual peers. Differences in daily activities and social contexts may contribute to these disparities. Although cross-sectional studies suggest time use differences, it is unclear whether these patterns change or persist across adolescence. Purpose To examine whether differences in time use between LGBQ and heterosexual adolescents vary with age. Methods Data were drawn from the Longitudinal Study of Australian Children (n=6,243), following adolescents aged 10–15 years. Participants self-reported their sexual attraction and completed time use diaries recording activities for the previous day. Outcomes included time spend in active leisure, screen-based leisure, non-active leisure, school, sleep, and time with companions (mother, father, siblings, peers, alone). Linear regression models estimated age- and sex-adjusted differences in time use. Results Compared with heterosexual peers, LGBQ adolescents spent more time alone (31 minutes/day, $p<.001$), in non-active leisure (14 minutes/day, $p<.001$), and in screen-based leisure (11 minutes/day, $p<.05$), and less time with peers (26 minutes/day, $p<.001$) and in active leisure (10 minutes/day, $p<.001$). These differences were evident by age 10 and remained stable across adolescence. Sex interactions indicated that LGBQ males spent less time in structured active leisure (10 minutes/day less, $p<.001$), while LGBQ females spent less time with mothers (25 minutes/day, $p<.05$) than heterosexual adolescents. Conclusions Time use differences for LGBQ adolescents emerge early and persist across adolescence, particularly in social engagement and physical activity contexts. Implications for Policy and Practice Findings support early, upstream strategies that create safe, inclusive school, community and recreational environments for sexual minority youth. Policies and programs should prioritise inclusive sport and extra-curricular participation, strengthen peer and family connectedness, and embed affirming practices within youth services to promote

Australia

The ‘Measure It!’ RCT: Is frequent measurement of physical activity in cardiac rehabilitation attendees (cost)-effective?

AUTHORS

Freene, N.[1], Seymour, J.[1], McPhail, S.[2], Tyack, Z.[2], Patterson, K.[1], Niyonsenga, T.[1], Kunstler, B.[3], Hartono, S.[1], Gallagher, R.[4], Abhayaratna, W.[5], Verdicchio, C.[4], Davey, R.[1]

AFFILIATIONS

[1]*University of Canberra*
[2]*Queensland University of Technology*
[3]*Monash University*
[4]*University of Sydney*
[5]*Australian National University*

Background Physical activity levels of cardiac rehabilitation attendees are low, increasing their risk of recurrent cardiac events and premature death. Purpose This study examined whether frequency of physical activity measurement (self-report and step-tracker daily steps), with very brief advice from cardiac rehabilitation clinicians (Measure It!; <5min), influenced device-measured physical activity in cardiac rehabilitation attendees. Methods This two-arm multicentre randomised trial included cardiac rehabilitation attendees (n=190) randomised to either 2 or 5-physical activity measurements (2-PAM or 5-PAM) over 24-weeks. The primary outcome was daily minutes of moderate-to-vigorous physical activity (MVPA; accelerometry). Secondary outcomes included daily steps (accelerometry), body mass index, waist circumference, quality-of-life (AQoL-6D) and healthcare usage costs. Results Point estimates of effect for change in MVPA (Cohen’s f = 0.05) and daily steps (Cohen’s f = 0.14) were higher at 24-weeks for the 5-PAM group than 2-PAM group but were not statistically significant at this small-medium effect size. For daily steps (difference-in-difference 447 steps/day, 95% CI: -44-to-938, p=0.075), the observed effect may be clinically meaningful. Incremental cost-effectiveness ratios of cost per Quality Adjusted Life Year (QALY) found that the 5-PAM intervention cost less and resulted in greater health benefits than the 2-PAM intervention. Cost effectiveness acceptability curves showed the 5-PAM was more cost-effective than the 2-PAM intervention and had a higher probability of being cost-effective at higher willingness-to-pay thresholds. Conclusion The Measure It! intervention delivered 6-weekly by cardiac rehabilitation clinicians over 24-weeks (5-PAM) may be an efficient and effective approach to increase daily steps and MVPA in cardiac rehabilitation attendees. However, larger trials are required as this trial was designed to detect a larger effect. Implications for Policy and Practice Frequent Measure It! interventions appear to be good value for money as they are more cost-effective than less frequent Measure It! interventions, low-risk and highly scalable.


Australia

Timing of 24-hour movement behaviours and type II diabetes risk

AUTHORS

Koemel, N.[1], Chong, K.H.[2], Sabag, A.[2], Ahmadi, M.[2], Stamatakis, E.[2]

AFFILIATIONS

[1]*The University of Sydney*
[2]*University of Sydney*

Background: The relationship between movement behaviours and type II diabetes (T2D) risk is well established, however, the role of timing remains underexplored. Purpose: Investigate the association between 24-hour movement behaviours and T2D risk relative to wake-time. Methods: This prospective cohort analysis included 62,853 participants from the UK Biobank (median age: 63.0 years; 43.4% male). Sleep and moderate to vigorous physical activity (MVPA) were calculated using a machine learning based schema. We used a 24-hour isometric-log ratio framework to examine movement behaviours, including light physical activity, moderate physical activity, vigorous physical activity (VPA), sleep, and sedentary time. Analyses were stratified by the timing of majority MVPA completion relative to individual wake time, categorised as early, mid, or late accumulation following waking (0-5 hours, 5-10 hours, and >10 hours). Results: Over the 8.0-year median follow-up time, 1650 incident T2D events occurred. Reallocating five minutes per day from light or moderate physical activity to VPA during the mid post wake period was associated with 23-24 percent lower T2D risk (light: HR 0.76; 95%CI 0.71-0.80; moderate: HR 0.77; 95%CI 0.71-0.82), with weaker associations observed for early (light: HR 0.81; 95%CI 0.73-0.89; moderate: HR 0.86; 95%CI 0.76-0.97) and late accumulation (light: HR 0.84; 95%CI 0.70-1.00; moderate: HR 0.87; 95%CI 0.70-0.87). Replacing five minutes per day of sedentary time with VPA was associated with the lowest risk when VPA was accumulated during the mid post-wake period (HR: 0.76; 95%CI: 0.71, 0.80), compared to early (HR: 0.81; 95%CI: 0.73, 0.89) or late (HR: 0.83; 95%CI: 0.69, 0.98). Conclusions: Higher-intensity physical activity was most strongly associated with lower T2D risk when replacing other behaviours 5-10 hours after waking. Implications for Policy and Practice: These findings highlight that both the intensity and timing of daily physical activity may be relevant for T2D prevention. Funding: National Health and Medical Research

Canada

Prospective Acceptability of a Primary Fall Prevention app for Canadians age 50+: A National Survey

AUTHORS

Bouchard, D.R.[1], Fuentes Diaz, M.F.[2], Trinitta Ugwuegbulem, C.O.[2], Delbeare, K.[3], Sibley, K.[4]

AFFILIATIONS

[1]*University of New Brunswick*

[2]*Cardiometabolic Exercise & Lifestyles Laboratory, University of New Brunswick. 90 MacKay Drive, Fredericton, NB, E3B 5A3 Canada. Interdisciplinary Studies, School of Graduate Studies, University of New Brunswick, 3 Bailey Dr, Box 4400, Fredericton, NB, E3B 5A3, Canada.*

[3]*School of Health Sciences, University of New South Wales Sydney Falls, Balance and Injury Research Centre, Neuroscience Research Australia.*

[4]*College of Community and Global Health, University of Manitoba, 750 Bannatyne Avenue, Winnipeg, MB, R3E 0W3, Canada. George & Fay Yee Centre for Healthcare Innovation, University of Manitoba, 753 McDermot Avenue, Winnipeg, MB, R3E 0T6, Canada.*

Background: Digital balance exercise programs offer scalable solutions for fall prevention, but their successful implementation depends in part on user acceptability. Acceptability may differ by physical activity level and technology familiarity, particularly among adults aged 50 years and older. Purpose: To determine whether physical activity level (PA) and/or technology use (TU) were associated with prospective perceptions of the acceptability of StandingTall, a validated balance exercise app proven to reduce fall risk among older adults. Methods: Using the Theoretical Framework of Acceptability, we conducted a survey among Canadians aged 50+ recruited through social media. After viewing a demo video, participants rated app acceptability through questions aligned with the framework's seven constructs and provided demographic and health information. PA was measured using the Godin Leisure-Time Exercise Questionnaire, and TU using the Functional Assessment of Currently Employed Technology Scale. Participants were categorized into four groups (Low/High PA × Low/High TU), with high levels defined as Godin ≥ 24 and TU ≥ 35. Multivariable regression models examined associations between acceptability, PA, and TU, adjusting for potential confounders. Results: Among 314 respondents (mean age 61.9 ± 8.0 years; 89.2% women), overall acceptability was high (mean 5.8 ± 1.2 out of 7). Perfect acceptability (7/7) differed significantly across the four groups ($p = 0.008$). The High TU/Low PA group reported the highest acceptability (6.0 ± 1.1), while the Low TU/High PA group reported the lowest (5.2 ± 1.6). In adjusted models, TU—not PA—was independently associated with higher acceptability. Conclusions: Prospective acceptability was high, with TU having a greater influence than PA. Tailoring implementation strategies to users' technology experience may enhance adoption and sustained engagement among adults aged 50+. Implications for Policy and Practice: Implementation strategies should consider users' technology experience to support uptake of digital balance exercise programs. Funding: Canadian Institutes of Health Research Healthy Cities Implementation Science team grant.

Canada

Measuring Built Environment Change: A Scoping Review of Methods

AUTHORS

Lungu, A.[1], Barnett, T.[2], Fuller, D.[3], Kestens, Y.[4]

AFFILIATIONS

[1]*McGill University*

[2]*Department of Family Medicine, School of Medicine and Health Sciences, McGill University*

[3]*Department of Community Health and Epidemiology, College of Medicine, University of Saskatchewan*

[4]*School of Public Health, Department of Social and Preventive Medicine, Université de Montréal, Montreal, QC, Canada, Centre de Recherche en Santé Publique (CReSP), Montreal, QC, Canada*

Background: Evidence on how built environment (BE) transformations influence the uptake and maintenance of physical activity is limited, partly due to the lack of standardized assessment of change in BE features. Purpose: We conducted a scoping review of the peer-reviewed literature to synthesize methods used to measure and operationalize change in BE features; quantifying exposure, and relevance to physical activity were additional considerations. Methods: Guided by a librarian, a comprehensive search strategy was applied to Medline, Embase and Scopus (1967-2025). Inclusion criteria were repeated assessments of BE features, and >1 health-related outcome. Studies using subjective methods, ambient environmental exposures, food environments, or highly specific natural experiments, were excluded. Of 1958 studies screened, 50 underwent full-text review. Study characteristics, BE measurement methods and definition, change operationalization, exposure definition, and key results were extracted and synthesized, alongside appraisal of methodological approaches. Results: Sixteen studies were included, 15 of which were from high-income countries. Studies included between 2 and 5 BE measurement time points, and all investigated areas were within residential spatial buffers ranging from 400m to 1600m. Examined features included elements of walkability (10/16), green space (8/16), and recreational facilities (4/16). Change was operationalized using scores and/or discrete categories (quartiles, quintiles, positive/negative/no change), calculated by subtracting baseline from follow-up, weighting categories, or tracking movement between categories. Walkability improvements were modestly associated with physical activity; park and recreation changes showed mostly null associations. Subgroup analyses suggested greater benefits for urban residents, and lower socioeconomic groups. Conclusion: These findings provide a descriptive synthesis of how BE change has been operationalized in health studies and applied to physical activity. Analyses assessing key strengths and issues related to potential misclassification of exposure across approaches will be presented. Implications for Policy: The resulting recommendations can guide future interventions promoting physical activity and equitable urban development.

Australia

Developing and validating spatial indicators of cycling access and connectivity across diverse urban contexts globally

AUTHORS

Higgs, C.[1], Abdollahyar, M.[2], Jafari, A.[2], Turner, R.[2], Liu, S.[3], Saghapour, T.[4], Delclòs-Alió, X.[5], Queralt, A.[6], Molina-García, J.[6], Borello Vargas, J.C.[7], Resendiz Bontrud, E.[8], Hernández Alcaraz, C.[9], Peraza Mues, G.[10], Adlakha, D.[11], Lin, L.[12], Droin, A.[13], Msilanga, M.[14], Heikinheimo, V.[15], Willberg, E.[16], Schifanella, R.[17], Schipperijn, J.[18], Hinckson, E.[19], Salvo, D.[20], Boeing, G.[21], Lowe, M.[2]

AFFILIATIONS

[1]*RMIT University*

[2]*Centre for Urban Research, RMIT University, Melbourne, Australia*

[3]*University of Minnesota, Minneapolis, Minnesota, USA*

[4]*Victorian Department of Transport and Planning, Melbourne, Australia*

[5]*Universitat Rovira i Virgili, Tarragona, Spain*

[6]*University of Valencia, Valencia, Spain*

[7]*Federal University of Rio Grande do Sul, Porto Alegre, Brazil*

[8]*School of Architecture, Art and Design, Tecnologico de Monterrey, Mexico City, Mexico; Center for the Future of Cities, Tecnologico de Monterrey, Monterrey, Mexico*

[9]*National Institute of Public Health, Cuernavaca, Mexico*

[10]*Center for the Future of Cities, Tecnologico de Monterrey, Monterrey, Mexico*

[11]*Department of Urbanism, Faculty of Architecture and the Built Environment, Delft University of Technology, Delft, Netherlands*

[12]*Xi'an Jiaotong - Liverpool University, Suzhou, China*

[13]*Universität Würzburg, Würzburg, Germany*

[14]*University of Turku, Turku, Finland*

[15]*Finnish Environment Institute, Helsinki, Finland*

[16]*Digital Geography Lab, Department of Geosciences and Geography, University of Helsinki, Helsinki, Finland*

[17]*University of Turin, Turin, Italy*

[18]*Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark*

[19]*School of Sport, Exercise and Health, Faculty of Health and Environmental Sciences, Auckland University of Technology, Auckland, New Zealand*

[20]*Center for Research to Community Impact, and Department of Kinesiology and Health Education, College of Education, The University of Texas at Austin, Austin, USA*

[21]*Department of Urban Planning and Spatial Analysis, Sol Price School of Public Policy, University of Southern California, Los Angeles, USA*

Background Encouraging cycling uptake to counter physical inactivity and car dependent lifestyles remains a global challenge. Cities lacking coherent cycling networks with low traffic stress deter ridership and reinforce inequities in access to employment, services and opportunities for physical activity in daily life. Purpose This study develops and validates spatial measures of cycling access and connectivity to guide planning responses to physical inactivity and unequal access to daily living amenities and services in diverse settings. Methods A working group of the Global Observatory of Healthy and Sustainable Cities developed cycling indicators for diverse urban contexts using open data, following a literature review and a series of online workshops. Level of Traffic Stress for cycling (LTS)—integrating speed limits, lane configuration, and infrastructure type—was derived using OpenStreetMap attributes. Access to amenities within 2 km (5-15 mins) and 5 km (15-30 mins) of dwellings via LTS routes was evaluated. Accessibility and connectivity measures were aggregated to 100 m grids. Local experts validated results through comparison with street imagery, observed cycling activity and mode share. Results Cycling access and connectivity varied widely across cities and neighbourhoods, reflecting differences in network design, land use, and destination distribution. Areas with minimal low-stress access were identified. Interpretation was constrained in some instances by uneven OpenStreetMap data quality, and limited availability of comparable cycling behaviour data. Conclusions This study validated methods for identifying inequities in safe cycling access and connectivity, and highlighted opportunities and limitations of global open data. Implications for Policy and Practice LTS offers a practical bridge between built-environment conditions and cyclists' safety perception, making it well-suited to inform equitable planning across diverse urban contexts. Our research provides validated, globally applicable methods for identifying inequities in cycling infrastructure to foster cycling uptake for healthier, more sustainable cities. Funding AXA Research Fund.

Japan

Area-level socioeconomic inequalities in active travel in the Greater Tokyo Metropolitan Area: Does age matter?

AUTHORS

Abe, T.[1], Dogra, S.[2], Sugiyama, T.[3], Owen, N.[3], Chandrabose, M.[4]

AFFILIATIONS

[1]*Meiji University*
[2]*Ontario Tech University*
[3]*Swinburne University of Technology*
[4]*RMIT University*

Background: Understanding how area-level socioeconomic inequalities in active travel vary across age groups is important for informing equitable urban design and transport policies. Purpose: We examined the potential moderating effects of age on the association between area-level socioeconomic disadvantage and active travel. Methods: We analysed data from 177,258 adults aged 20–74 years from the Sixth Greater Tokyo Metropolitan Area Household Travel Survey (2018). Active travel was defined as engaging in walking or cycling without car use. Area-level socioeconomic disadvantage was measured using the area deprivation index from 268 municipalities derived from Japanese census data. Municipalities were dichotomised based on the median score into low and high disadvantage areas. Multilevel modified Poisson regression models examined the association between area-level socioeconomic disadvantage and active travel across three adult age groups (young: 20–39 years, middle-aged: 40–64 years, older: 65–74 years), accounting for clustering at the municipality level. Adjusted prevalences of active travel were calculated by area-level disadvantage within each age group. Results: There was a significant interaction between age and area-level socioeconomic disadvantage for active travel. Compared to those in the low disadvantage areas, those in the high disadvantage areas showed significantly lower active travel across all age categories. However, the association between area-level disadvantage and active travel was not uniform across age groups: in the low compared to high disadvantage areas, the adjusted prevalence of active travel was 81% versus 62% among young adults, 74% versus 49% among middle-aged adults, and 63% versus 53% among older adults. Conclusions: Active travel was lower in high disadvantage areas than in low disadvantage areas across all age groups, but the magnitude varied by age. Implications for Policy and Practice: Environmental and policy initiatives should consider area-level socioeconomic contexts and age-specific needs to promote active travel.

Funding: None.

SHORT ORALS

7 Oct | Unlocking the drivers of physical activity

Session Chair: Scherezade Mama

Colombia

Social inequalities influence in physical activity, sedentary behavior and dietary patterns among Colombian adolescents

AUTHORS

Tonguino Rosero, S.[1], Vergara-González, M.D.M.[2], Zapata-López, J.S.[2], Mendez-Paz, F.[3]

AFFILIATIONS

[1]*Universidad del Valle - Institución Universitaria Escuela Nacional del Deporte*

[2]*Institución Universitaria Escuela Nacional del Deporte*

[3]*Universidad del Valle*

Background: Health risk behaviors such as physical inactivity, sedentary behavior (SB), and unhealthy eating habits are highly prevalent among adolescents. These behaviors are not driven solely by individual choices but are shaped by social and economic inequalities that limit opportunities for adopting healthy lifestyles, particularly among vulnerable groups. Objective: To determine the association of social inequalities with health risk behaviors (HRBs) among Colombian adolescents. Method: Cross-sectional study with 78,772 adolescents aged 13-17 years participating in the 2017 National School Health Survey. The association between HRBs (physical inactivity, sedentary lifestyle, and eating behaviors) and social inequalities (sex, age, ethnicity, having gone hungry in the last month, extracurricular work, grade level, and type of school) was estimated using logistic regression for dichotomous variables and ordinal logistic regression for ordinal variables. Results: The odds of being physically inactive/sedentary increased by 52% in women (ORa: 1.52; 95% CI: 1.45–1.60); 9% for each year of age (ORa: 1.09; 95% CI: 1.06–1.12) and 10% for experiencing hunger (ORa: 1.10; 95% CI: 1.04–1.17). Inadequate fruit and vegetable consumption increased with age (ORa: 1.11; 95% CI: 1.08–1.14) and when experiencing hunger (ORa: 1.32; 95% CI: 1.21–1.45). In contrast, being female and having a job were associated with excessive consumption of processed foods. Excessive consumption of sugary drinks and soft drinks was higher in the BARP population (ORa: 1.31; 95% CI: 1.18–1.45) and in those who were employed (ORa: 1.19; 95% CI: 1.09–1.30). Conclusions: Social inequalities influence HRBs in Colombian adolescents. As a multidimensional phenomenon influenced by social gaps, addressing these behaviors requires public policies that focus on the most vulnerable groups. Implications for Policy and Practice: Findings support equity-oriented policies that address food insecurity, gender disparities, and structural barriers to healthy behaviors through targeted school- and community-based interventions.

Australia

Can gender gap in physical activity be closed by 2030? A systems modelling approach

AUTHORS

Luo, M.[1], Nguyen, B.[1], Nau, T.[1], Owen, K.[1], Clare, P.[1], Chiu, S.[2], Gary, S.[3], Ding, D.[1]

AFFILIATIONS

[1]*The University of Sydney*
[2]*The University of New Castle*
[3]*University of New South Wales*

Background: Gender equity is a stated priority in physical activity (PA) promotion, with many countries embedding gender equity objectives into national strategies. However, it remains uncertain whether the gender gap has been or will be closed within the coming decade. Predicting future trends is further complicated by nonlinearities, feedback loops, and interactions among multiple determinants that influence PA. Purpose: This study aimed to assess whether gender disparities in PA across age groups in New South Wales (NSW), Australia, are likely to be eliminated by 2030 under current trends and plausible scenarios. Methods: We developed a system dynamics simulation model to examine gender inequalities in PA participation across life course, using NSW population data. Five different scenarios were simulated and compared with a business-as-usual (BAU) trajectory to assess the potential to close the gender gap by 2030 across different age groups. Results: The model closely replicates the historical trajectory of PA prevalence from 2004 to 2019 across gender and age groups. Under BAU, in 2030, the projected prevalence among young women and men is 82.8% and 79.3%, respectively (reverse gap: +3.5 percentage points). Among middle-aged adults, projected prevalence is 61.1% for women vs 64.7% for men (gap: -3.6 points). Among older adults, projections are 46.1% for women vs 52.4% for men (gap: -6.3 points). Across all simulated scenarios, including the most optimistic scenario involving a 20% relative increase in women's PA uptake, achieving gender equity by 2030 appeared unlikely for middle-aged and older population. Conclusions: Gender disparities in PA persist across the life course in NSW, and current policies are insufficient to close the gap by 2030. Implications for Policy and Practice: Achieving equitable participation will require urgent, targeted, and gender-responsive systemic actions that enable women to be active, supported by routine monitoring of gender- and age-disaggregated progress against equity targets.

United States

Association of unmet social needs with longitudinal physical activity in a chronic care management population

AUTHORS

Reininger, B.[1], Heredia, N.[1], Yang, Z.[1], Lee, M.[1], Lee, S.[1], Mitchell-Bennett, L.[1], Lopez, J.[1], Zolezzi, M.[1]

AFFILIATIONS

[1]*The University of Texas Health Science Center Houston*

Background Meeting physical activity (PA) guidelines is an important part of a healthy lifestyle, especially for individuals with chronic conditions. Little is known about how social determinants of health (SDOH) affect chronic care management interventions promoting PA. Purpose We assessed how adverse SDOH factors were associated with meeting PA guidelines and Metabolic Equivalent of Task (MET) minutes/week of Moderate-to-Vigorous PA (MVPA) over time in a chronic care management intervention. Methods Salud y Vida is a chronic care management program addressing uncontrolled type 2 diabetes along the Texas-Mexico border. Through factor analysis, we identified four SDOH and one behavioral health factor(s) from 39 variables collected for clinical and social needs assessments. We conducted multivariable logistic and negative binomial regression models to assess associations of factor scores (high vs. low) with longitudinal PA (meeting vs. not meeting guidelines; MET-minutes/week), adjusting for confounders. Results The analytic sample (N=5,051) was middle-aged (median age 53 years), female (71%), and Spanish-speaking (72%). Participants had lower odds of meeting PA guidelines at 9-12 months intervention timepoint if they had higher Identified Mental Health Needs (adjusted odds ratio (aOR)=0.70; p=0.001at 9 months), Insurance & Healthcare Barriers (aOR=0.73, p=0.007 at 9 months), and Urgent Financial or Social Hardship (aOR=0.76, p=0.01 at 12 month) compared to those with low scores (fewer needs) at baseline. Participants with more needs in Identified Mental Health Needs or Insurance & Healthcare Barriers had fewer MVPA MET-minutes over time compared to those with fewer needs. Conclusions High levels of adverse SDOH are associated with lower odds of meeting PA guidelines among adults living on the Texas-Mexico border in a chronic care management intervention. Implications for Policy and Practice Chronic care management interventions should assess and address adverse SDOH and behavioral health needs among participants with the highest need to better support PA over time.

Canada

Don’t know what you’ve got until it's gone: The impact of COVID-19 on sport

AUTHORS

Szczepanowski, M.[1], Ferro, M.A.[1], Potwarka, L.R.[1], Patte, K.A.[2], Leatherdale, S.T.[1]

AFFILIATIONS

[1]*University of Waterloo*
[2]*Brock University*

Background Physical activity (PA) is one of the main movement behaviours outlined in the 24-Hour Movement Guidelines, while sport is one of the key modes for attaining PA among youth. It is clear that COVID-19 had an impact on sport opportunities due to associated restrictions; however, the rebound after is less understood. Purpose The purpose of this study was to examine whether changes in the frequency of sport participation over time were the same before the onset of the COVID-19 pandemic, during the initial pandemic, and during the ongoing pandemic. Methods Three longitudinal cohorts of data were used (n=11,601) for students in grade 9 at baseline from 2016-2023 using the COMPASS study. The prevalence of participation in intramural, varsity, and community sports was measured at baseline and follow-up. A difference-in-difference (DiD) analysis was used to model relative change between cohorts. Results Consistent with existing literature, youth prior to COVID-19 demonstrated a decline in sport participation over time (decline of 1.0% to 13.3%), while this was exacerbated for school-based sports during the initial pandemic. During the ongoing pandemic, school-based sport saw a rebound, while community sport continued to decline. Generally, male youth saw a greater relative decline than female youth during the pandemic. Interestingly, PA recommendation attainment did not exhibit a significant impact from the pandemic. Conclusions The COVID-19 pandemic certainly had an impact on sport participation for youth; however, they still found ways to stay physically active. As well, once sporting opportunities were available in school environments, the uptake was evident. Implications for Policy and Practice This evidence shows that the removal of intramural and varsity sport may not be as detrimental to PA as once thought, meaning unstructured avenues for PA attainment are critical to investigate. Funding Full details for COMPASS Study funding can be found online (https://uwaterloo.ca/compass-system/information-researchers).

France

Contextual determinants of implementing Acti-Pair in prostate cancer care: a CFIR-based qualitative study

AUTHORS

Baudot, A.[1], Collange, F.[2], Fayolle, E.[3], Hupin, D.[4]

AFFILIATIONS

[1]*CIC 1408*
[2]*CIC 1408 / P2S*
[3]*CIC 1408 / SAINBIOSE*
[4]*SAINBIOSE*

Background Acti-Pair is a peer-supported physical activity (PA) referral intervention designed to promote sustained engagement in PA among patients with prostate cancer. Prior to implementation, a contextual assessment was conducted to identify multilevel determinants likely to influence implementation, including stakeholders' knowledge, beliefs, and perceptions regarding PA, adapted physical activity (APA), and the Acti-Pair program. Interprofessional dynamics between APA professionals, DAPAP (Physical Activity Referral Schemes) coordinators/managers, and healthcare professionals were also explored. Methods A qualitative study was conducted using semi-structured interviews with 35 stakeholders (APA professionals and healthcare professionals). Data were analyzed through thematic content analysis, guided by the Consolidated Framework for Implementation Research (CFIR), to identify barriers and facilitators across domains. Results Implementation determinants were identified at multiple levels. At the organizational level, DAPAP coordinators emerged as key actors, and Acti-Pair was perceived as congruent with organizational missions. However, financial instability and reliance on short-term funding mechanisms were reported as major structural barriers. Within the outer setting, limited engagement of healthcare professionals in PA prescription and referral constrained interprofessional collaboration. Participants highlighted insufficient awareness of APA services and expressed a need for stronger evidence regarding PA benefits in oncology. At the individual level, stakeholders reported high motivation to integrate Acti-Pair into practice but raised concerns regarding peer training, role clarity, and quality assurance. Peer support was perceived as a potential mechanism to enhance patient engagement and adherence. Healthcare professionals viewed the program as an opportunity to embed PA into care pathways and promote cultural change within oncology practice. Conclusion Acti-Pair demonstrates strong perceived acceptability and organizational fit. Nevertheless, implementation success will depend on clarifying peer roles, harmonizing evaluation tools, strengthening interprofessional collaboration, and ensuring sustainable institutional and financial support. This pre-implementation assessment informed targeted adaptations to optimize implementation readiness and integration into prostate cancer care pathways.

Canada

Three Decades of Sustained Community-Led Diabetes Prevention in Kahnawà:ke Mohawk Territory

AUTHORS

McBeath, B.[1], Delormier, T.[2], McComber, A.M.[3], Hare, C.[4], Macaulay, A.C.[2], Baillie, C.P.[4], Taylor, V.[4], Lévesque, L.[4]

AFFILIATIONS

[1]*Queen's Unviersity*
[2]*McGill University*
[3]*Kahnawà:ke Schools Diabetes Prevention Program*
[4]*Queen's University*

Background: The Kahnawà:ke Schools Diabetes Prevention Program (KSDPP) is one of the longest-standing Indigenous community-owned health promotion programs in the world. Founded in 1994 in Kahnawà:ke Mohawk Territory, Canada, KSDPP emerged from a collective call to protect children from type 2 diabetes. Over three decades, KSDPP evolved from a school-based physical activity and healthy eating initiative into a Centre for Research and Training with reach across Turtle Island. Purpose: To examine the conditions that have sustained KSDPP across thirty years and their potential transferability to other Indigenous communities. Methods: First, a systematic database search identified 187 studies. Following screening and citation chaining, 68 peer-reviewed publications were included for inductive thematic analysis resulting in an initial framework of sustaining conditions. Next, five Kitchen Table conversations were held with seven Kahnawa'kehró:non (Mohawk people from Kahnawà:ke) and non-Indigenous allied team members representing the Community Advisory Board (CAB), intervention team, and research team. Transcripts were analysed deductively using the initial framework. Results: Seven sustaining conditions emerged: genuine community ownership; cultural grounding; integration of intervention, research, and training; adaptive funding diversification; a school-centered platform with sustained investment in educators; trusted local champions; and multisectoral cross-community partnerships. Conclusions: Some conditions that sustained KSDPP are inseparable from Kahnawà:ke's history including its sovereignty, collective identity forged through political mobilization in the early 1990s, and the deep community embeddedness of founding team members. Yet core structural conditions, including CAB governance, cultural grounding, multi-axis program architecture, and investment in local champions, are transferable and offer a foundation for sustaining physical activity and healthy lifestyle programs across generations. Implications for Policy and Practice: Sustainable Indigenous health promotion requires long-term, flexible funding; community decision-making authority; and recognition that prevention outcomes unfold over decades, not funding cycles.

Funding: This work was funded by the Canadian Institutes of Health Research (CIHR) Team Grant #DRW-187410.

United States

Physical activity and asthma management: uncovering climate-related barriers and developing an assessment instrument

AUTHORS

Nyenhuis, S.[1], Cavalier, A.[2], Salvo, D.[3], Sharp, L.[4]

AFFILIATIONS

[1]*The University of Chicago*
[2]*The University of Chicago, Department of Pediatrics*
[3]*The University of Texas-Austin*
[4]*University of Illinois Chicago*

Background: Uncontrolled asthma disproportionately burdens marginalized U.S. populations. Physical activity is an effective yet under-utilized strategy for asthma management, and climate change impacts further limit participation. Purpose: Examine perceptions of climate change, physical activity, and climate resilience among minoritized adults living with asthma, and inform the development of a climate-focused assessment instrument for physical activity researchers. Methods: Adults (≥18 years) with physician-diagnosed asthma from the Chicago area were recruited via community-based organizations, a medical center, and a research registry. Eligible participants self-identified as Black/African American, Hispanic/Latino, and/or mixed race. Semi-structured interviews were conducted individually or in small groups (≤6), using a standardized guide informed by the Theoretical Domains Framework and COM-B model, with explicit focus on asthma self-management and active living under climate stressors. Data were thematically analyzed and supported quantitative instrument development (questionnaire). Results: Twenty participants provided data. Four themes emerged: Climate Change Awareness; Perceived Harms of Climate Change; Climate Resilience Barriers and Strategies; and Outlook on Climate Change. Participants consistently identified extreme heat, poor air quality, and unpredictable weather as major barriers to outdoor physical activity and asthma control. Many reported reducing or avoiding physical activity during adverse conditions, despite recognizing its health benefits. Individual-level resilience strategies (e.g., indoor air filtration, modifying activity timing or location) were common but financially burdensome, while community-level supports for climate-safe physical activity were perceived as limited. A 30-item questionnaire assessing climate awareness, perceived health impacts, climate-related barriers (including physical activity constraints), and climate resilience for asthma management and active living was developed, and is undergoing factor-analytic validity testing. Conclusions: Climate change constrains physical activity participation among marginalized adults with asthma, undermining an important management strategy. Implications for Policy and Practice: Climate-resilient and equity-focused physical activity interventions are needed to support safe movement and disease management for climate- and socially-sensitive conditions.

Sweden

Running on empty? Fatigue, recovery, and health status in adults with physically demanding occupations

AUTHORS

Lind, J.[1], Vaisanen, D.[2], Olsson, K.[2], Södergård, O.[2], Spetz, L.[3], Larsen, F.[3], Ekblom-Bak, E.[4]

AFFILIATIONS

[1]*The Swedish School of Sport and Health Sciences*

[2]*Department of Health sciences, The Swedish School of Sport and Health Sciences*

[3]*Department of physiology, nutrition and biomechanics,The Swedish School of Sport and Health Sciences*

[4]*Department of Health sciences, The Swedish School of Sport and Health Sciences. Department of Occupational Health, Psychology and Sports Sciences, University of Gävle.*

Background Leisure-time physical activity promotes health, whereas occupational physical activity has been associated with adverse health outcomes and impaired well-being. Workers in physically demanding occupations with low cardiorespiratory fitness (CRF) are particularly vulnerable, as they experience a higher relative workload, which may contribute to fatigue and reduced work ability. Purpose To describe self-reported work ability, overall health status, recovery, and fatigue, along with objectively measured CRF, among adults with physically demanding occupations. Methods Adults were included based on self-reported physically demanding occupations (involving standing, walking, lifting, and manual labor), low levels of leisure-time physical activity (<60 minutes per week), and low self-reported CRF. All assessments were conducted on-site at participants' workplaces, where they completed a questionnaire assessing work ability, overall health status, recovery, and fatigue. CRF was assessed using the Ekblom-Bak submaximal cycle ergometer test to estimate VO_2max. Results Twenty-nine participants took part (mean age 42.0±9.8, range 23-58 years; women n=6; shift workers n=8). Median VO_2max was 32.2 $ml \cdot kg^{-1} \cdot min^{-1}$ (IQR 29.4–38.0, n=28). Overall physical and mental health were rated as poor or very poor by 34.4% and 10.3%, respectively. 48.3% reported fair physical work ability in relation to job demands, and 13.8% reported poor ability. 51.7% indicated rarely or never feeling rested and recovered in the morning, and 31.0% reported the same after days off. 58.6% experienced physical fatigue often or very often during work. Additionally, 65.5% often or very often skipped leisure activities due to post-work fatigue. Conclusion Adults with physically demanding occupations showed widespread fatigue, insufficient recovery, and reduced work ability alongside reduced CRF. Implications for Policy and Practice These findings support workplace interventions tailored to individual capacity, workload, and recovery needs to enhance physical fitness and well-being. Funding Forte, Dnr 2024-00865

United States

Relationship characteristics and autonomy support for physical activity among inactive women in a dyad-based study

AUTHORS

Strong, L.[1], McNeill, L.[2], Reitzel, L.[2], Li, Y.[2], Wang, J.[2], Basen-Engquist, K.[2]

AFFILIATIONS

[1]*The University of Texas MD Anderson Cancer Center*

[2]*University of Texas MD Anderson Cancer Center*

Background: Increasingly, research has sought to intervene on interpersonal social processes, engaging close others in interventions to promote positive behavior change. Yet, little is known regarding how the type and quality of these dyadic relationships influence dyadic interactions and health behaviors. Women on the Move is an ongoing randomized controlled trial to test whether participating in a dyadic health coaching intervention with a partner is more effective for increasing physical activity than participating in health coaching alone. Purpose: The purpose of this study is to describe the relationship characteristics of study partners enrolled as dyads in Women on the Move and examine differences in perceived autonomy support for physical activity by relationship attributes. Methods: Insufficiently active women (<150 min/week of moderate-vigorous activity) enrolled with an eligible study partner of their choice (e.g., family, friend). Characteristics of dyad relationships and perceived autonomy support for physical activity were collected at baseline. Results: 456 women enrolled in the study from 2022-2025 as 228 dyads. Participants (mean age=44 years) were predominantly Hispanic (61%) or Black (24%). Dyads comprised mainly friends (40%), family members (30%), or work colleagues (18%); partners reported knowing each other for a mean of 16.7 years (range 0-61). Participants reported feeling close to their study partner (mean=4.2 on scale 1-5), with most (67%) reporting weekly partner contact. Perceived autonomy support for physical activity received from and provided to women's study partners were 4.4 and 4.2 (scale 1-7), respectively. Further analyses will examine associations of relationship characteristics with autonomy support. Conclusions: The type and quality of dyadic relationships may be important to assess and examine in behavior change studies involving close others. Implications for Policy and Practice: Findings regarding relationship characteristics associated with dyadic social processes may inform and help optimize dyadic interventions and programming to promote physical activity. Funding: NIH/NHLBI R01HL155310

Brazil

Dogs and physical activity: a decade of analysis with adults from São Paulo city, Brazil

AUTHORS

Antonio Florindo, A.[1], Santana, D.D.[2]

AFFILIATIONS

[1]*University of Sao Paulo*
[2]*University of São Paulo*

Dogs are common family members for company, to help people like the visually impaired, in rescue situations and in many therapies. The relationship between physical activity in people with dog ownership and with walking the dogs has recently been studied, and there are very few longitudinal studies, mainly in low-and middle-income countries. The aim was to investigate if walking with dogs is related to leisure-time physical activity and walking for transportation in adults. Methods: For this study, we used data from the Health Survey of São Paulo (ISA): Physical Activity and Environment Longitudinal Study. This cohort investigates temporal changes and the relationships between built environment characteristics, physical activity, and health outcomes. The sample was the 4,042 participants aged 12 years or older in the baseline (2014/2015) who completed face-to-face interviews. In wave 2 (2020/2021) was 1,434 participants; and in wave 3 (2023/2024) was 1,583 adults (39.2% of the baseline sample). The variable dog walking was assessed in all three waves using the question: “Do you walk your dog?”. The physical activity was collected using the IPAQ long version. In the longitudinal analyses, multilevel logistic regression was used. Results: The frequency of walking the dog increased among the decades (2014/2015=11%; 2020/2021=15.5% and 2023/2024=18.4% ($p<0.001$)). In multilevel regression models considering longitudinal periods, we found that people walking with dogs had a higher chance of leisure-time physical activity (≥150 min/week; OR=2.11, CI95%1.73-2.58), walking in leisure-time(≥150 min/week; OR=1.55 CI95%1.22-1.98), and walking for transportation (≥150 min/week OR=1.26 CI95%1.04-1.52). Conclusion: Walking with dogs are determinant for physical activity promotion in people living in a metropolitan city from low and medium income country in Brazil. Supported by FAPESP.

United States

Participatory systems thinking to elucidate drivers of active living disparities in Durham, North Carolina

AUTHORS

Serrano, N.[1], O'Connor, Á.[2], Bosch, R.[2], Bagans, C.[2]

AFFILIATIONS

[1]*Washington University in St. Louis*
[2]*University of North Carolina at Chapel Hill*

Background: Neighborhood development may help alleviate active living disparities through investment in infrastructure, facilitating active transportation and leisure-time exercise. However, there is little evidence highlighting links between investment opportunities and active living, creating challenges for the implementation of such strategies due to the complexities of inter-related factors and sectors (e.g., planning, transportation, housing). Purpose: To utilize a participatory systems approach to better understand the implementation of neighborhood development for active living, which could help identify leverage points to ensure more equitable active living behaviors. Methods: Participatory and community-based system dynamics strategies, including behavior graphs over time, group model building, and action ideas activities with key community stakeholders in Durham (i.e., researchers, n=8; policymakers/practitioners, n=7; and community members, n=8), have been used to engage with the community and build capacity for systems thinking while developing a system map to understand multilevel factors influencing active living disparities. Results: A total of 23 participants have participated in a full day workshop including behavioral graphs over time and group model building. From here a full system map was developed, with key themes related to active living disparities including: economic power, structural racism, climate change, political climate, public policy, infrastructure opportunities, belonging, and individual usability among others. A follow up workshop helped identify action ideas based on the full system map and policy recommendations to alleviate active living disparities. Conclusions: This work will help identify policy levers that are beneficial for active living and neighborhood development. Additionally, the distinctions between key stakeholder groups will inform any disconnect in the process of neighborhood development investment for active living. Implications for Policy and Practice: Knowledge generated from this study could influence land use and equitable development policies and provide valuable data for Latine and Black communities to advocate for their communities. Funding (if applicable): RWJF (ID: 81521)

SHORT ORALS

7 Oct | Physical activity in children and youth: evidence, interventions and outcomes

Session Chair: Jasper Schipperijn

Mexico

Measuring interpersonal determinants of adolescents' physical activity in digital and social media: The INDEEP study

AUTHORS

Quevedo, K.[1], Toosinezhad, S.[2], Martens, L.[3], Christianson, L.[3], Hebestreit, A.[3]

AFFILIATIONS

[1]*Leibniz Institute for Prevention Research and Epidemiology - BIPS | National Institute of Publica Health, Mexico*

[2]*University of Limerick*

[3]*1) Leibniz Institute for Prevention Research and Epidemiology – BIPS*

Background Digital and social media are increasingly prominent in adolescent physical activity (PA). However, evidence on interpersonal determinants within these environments remains scattered. Purpose To develop and test an instrument for assessing interpersonal determinants of adolescent PA in digital and social media. Methods A scoping review was conducted following international guidelines (https://osf.io/9uqvz/files/d54uv). Four databases and grey literature were searched without restrictions. Studies on healthy adolescents (10–19 years) examining interpersonal PA determinants in digital or social media were included. Data were charted and synthesized by independent reviewers. Most frequently associated determinants were used to guide instrument development. Results Of 6744 screened records, 22 studies (2009-2024) met inclusion criteria spanning Europe, North America, Latin America, Asia, and Australia. Digital channels included social media (n=13), digital apps (n=9), messaging (n=7), websites (n=5), and video chat (n=1). PA was self-reported (n=8), device-measured (n=7), both (n=5), or reported as PA intentions (n=2). Social support (e.g., feedback, encouragement, joint activity) was the most frequently assessed and associated determinant (n=20), followed by social norms (n=9), comparison or competition (n=8), role modelling (n=7), social interaction (n=6), data sharing (n=4), and parasocial relatedness (n=3). Determinants were often assessed as implicit behaviors via non-validated instruments. Identified determinants aligned with social cognitive theory constructs, informing a questionnaire for adolescents with items on social support (n=5), role modelling (n=4), social norms (n=6), and digital platform use and social influence on PA (n=2). Conclusions This review highlights the global relevance of digital social mechanisms associated to adolescent PA and the need for stronger theoretical measurement frameworks. Implications for Practice Findings informed a standardized questionnaire for the EU-funded INDEEP Project, aiming to harmonize the PA determinant measurement across European adolescents. Instruments are being piloted in early 2026, with results expected in time for congress presentation. Funding Marie Skłodowska-Curie Actions (No. 101073420)

Finland

Sex differences in hourly timing of physical activity across the week in 3–4-year-old children

AUTHORS

Uusitalo, K.[1], del Pozo-Cruz, J.[2], Haapala, E.A.[3], Wackström, N.[4], Roos, E.[4], Engberg, E.[4]

AFFILIATIONS

[1]*Folkhälsan Research Center*

[2]*University of Seville, Seville, Spain*

[3]*South- Eastern Finland University of Applied Sciences, Mikkeli, Finland*

[4]*Folkhälsan Research Center, Helsinki, Finland*

Background: Boys accumulate more moderate-to-vigorous physical activity (MVPA) than girls weekly, but it remains unclear when these differences occur. Purpose: We examined whether hourly MVPA in 3–4-year-old children differs between girls and boys on weekends, weekdays with early childhood education and care (ECEC), and weekdays without ECEC. Methods: Cross-sectional data from 2022–2023 included 1,081 children aged 3–4 years (46% girls). ActiGraph accelerometers measured MVPA for seven days and provided mean MVPA for each hour between 06:00−22:00 separately for weekends, weekdays with ECEC, and weekdays without ECEC. Linear mixed models with family-level random intercepts were adjusted for age and sick days. Results: Average daily MVPA was higher in boys than girls on weekends (65 vs. 59 min) and weekdays with ECEC (64 vs. 59 min), but not on weekdays without ECEC (56 vs. 56 min). MVPA peaked mid-morning and mid- to late-afternoon, with clearer peaks on weekdays with ECEC for both sexes. During weekdays with ECEC, boys were more active than girls at 08:00–11:00 and 13:00–16:00 (all $p \leq 0.017$; e.g., at 09:00–10:00: 7.4 vs. 6.2 min/h; β=1.21, 95% CI [0.70, 1.71]). No sex differences occurred on weekdays without ECEC, except girls had higher MVPA at 21:00–22:00 (2.5 vs. 1.5 min/h; β=−1.10, 95% CI [−1.94, −0.27], $p = 0.01$). On weekends, boys were more active at 10:00–14:00 and 18:00–19:00 (all $p \leq 0.021$; e.g., at 10:00–11:00: 6.4 vs. 5.4 min/h; β=0.97, 95% CI [0.37, 1.57]). Conclusions: Boys were more active during ECEC attendance on weekdays and around midday on weekends. Non-ECEC weekdays showed no sex differences. Implications for Policy and Practice: Findings may help ECEC staff and parents provide equitable guidance to support physical activity for all children. Funding: Research Council of Finland (371235)

Mexico

Children's Perceptions of Physical Activity Opportunities Following School Food Policy Implementation in Mexico

AUTHORS

Garduño-Alanis, A.[1], Contreras-Manzano, A.[2], Jáuregui de la Mota, A.[2], Barquera, S.[2], Argumedo-García, G.[2]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*

[2]*Centro de Investigación en Nutrición y Salud, Instituto Nacional de Salud Pública. Cuernavaca, Morelos, México.*

Background: Mexico implemented national guidelines regulating the sale of foods and beverages in primary schools to promote healthier school environments. Although focused on nutrition, these policies may also shape how children perceive physical activity opportunities at school. Purpose: To examine whether children who view school food regulations as related to insufficient physical activity are more likely to report increased physical activity opportunities during guideline implementation. Methods: Cross-sectional data from 3,200 primary school children were analyzed using a questionnaire designed to assess implementation of national guidelines regulating school food and beverages in Mexico. Children could select multiple perceived reasons for the policy. The exposure was perceiving insufficient physical activity as a reason. The outcome was reporting increased physical activity opportunities at school. Logistic regression adjusted for sex, age and State. Results: Most children attributed the policy to nutrition reasons, including preventing overweight or obesity (79.7%) and diabetes (66.9%); 41.9% mentioned reducing unhealthy foods and 6.3% lack of drinking water. Overall, 23.1% perceived insufficient physical activity as a reason, and 35.2% reported increased physical activity opportunities. Children linking the policy to insufficient physical activity more often reported increased opportunities (54.7% vs 29.3%, $p<0.001$). Adjusted models showed nearly threefold higher odds of reporting increased opportunities (OR=2.89; 95% CI:2.43–3.45). Conclusions: Although most children associate regulations with nutrition, those linking them to insufficient physical activity are more likely to perceive their school as promoting movement. Integrating nutrition and physical activity within school health policies may strengthen their impact on child health. Implications for Policy and Practice: School strategies emphasizing nutrition alone may miss opportunities for greater benefits. Adding explicit physical activity components and messaging to school food policy implementation could enhance effectiveness and better support children's health. Future research should examine longitudinal effects and implementation quality across school contexts to inform school health programs.

Australia

Exploring childcare educator and parent engagement for children's healthy eating and physical activity

AUTHORS

Francis, J.[1], Wenden, E.[1], Yoong, S.[2], Pearce, N.[1], Thornton, A.[3], Wallace, R.[4], Grady, A.[5], Villa, E.[1], Christian, H.[1], Zhao, M.[1]

AFFILIATIONS

[1]*The Kids Research Institute Australia*
[2]*Deakin University*
[3]*WA Department of Health*
[4]*Edith Cowan University*
[5]*University of Newcastle*

Background Many pre-schoolers in Australia do not meet recommend physical activity and dietary guidelines. Early Childhood Education and Care (ECEC) services are key settings for health promotion, with half of Australian children aged 2–3 years attending ECEC. However, efforts to promote healthy eating and physical activity within ECEC can be challenging given educator-parent engagement is often low, particularly in disadvantaged areas. Purpose This study explored barriers, enablers, and strategies for effective educator-parent engagement around healthy eating and physical activity at ECEC and at home, focusing on lower-socio-economic status (SES) services and families. Methods A total of 29 participants (n=23 ECEC educators and n=6 parents) from four lower-SES ECEC services participated in focus groups or individual interviews between February and June, 2024, in Perth, Western Australia. A thematic analysis of the data was undertaken. Results Three themes were identified: i) educators' and parents' understanding of healthy eating and physical activity; ii) cultivating educator-parent connection; and iii) communication tools for promoting healthy eating and physical activity. Barriers to educator-parent engagement included parents' lack of knowledge and interest in healthy eating and physical activity, parents' lack of time, complex custody arrangements, educators' under-developed communication skills, and parents' different preferences for receiving information. Enablers included empathetic and trusted educators, transparent modes of communication, and spatial visibility within ECECs. Strategies to improve educator-parent engagement and promote healthy eating and physical activity included educator training to improve communication skills and digital and face-to-face communication initiatives. Conclusion A multi-faceted approach to enhancing educator-parent engagement is essential for meeting the diverse needs of educators and families and supporting healthy behaviours in children. Implications for Policy and Practice ECEC services that combine digital and face-to-face communication tools are well-equipped to deliver effective, inclusive, and sustainable interventions promoting healthy eating and physical activity at ECEC and home.

United States

Urbanicity attenuates relationships between Child Opportunity Index and physical activity among Texas, USA adolescents

AUTHORS

Pfledderer, C.[1], Brown, D.[2], Salvo, D.[3], Hunt, E.[4], Mullane, E.[4], Kapfhammer, M.[4], Johnson, A.[5], Ranjit, N.[4], Hoelscher, D.[4]

AFFILIATIONS

[1]*The University of Texas Health Science Center Houston*
[2]*Kansas State University*
[3]*UT Austin*
[4]*UTHealth Houston*
[5]*San Diego State University*

Background Less than 25% of US adolescents meet physical activity (PA) guidelines. In Texas, the prevalence is even lower. Understanding the neighborhood context in which PA occurs is essential for developing effective interventions. Purpose To examine associations between neighborhood opportunity and PA among adolescents in Texas and test whether these associations differ by urban-rural status. Methods We used pooled cross-sectional data from adolescents who completed four waves (2009-2023) of the Texas School Physical Activity and Nutrition survey, linked with state-normed postal code-level Childhood Opportunity Index 3.0 (COI) data. Robust Poisson regression models estimated associations between COI and the number of days adolescents self-reported participating in ≥60 minutes of moderate-to-vigorous physical activity, adjusting for covariates, and tested for COI x urban-rural status interactions. Results The statewide representative sample consisted of 26,576 adolescents (14.8±1.6 years,51% female,59% Hispanic,67% urban). While COI was significantly higher in urban areas compared to rural areas (34 vs. 30,$p<0.01$), rural adolescents were physically active on more days than urban adolescents (4.7 vs. 4.2,$p<0.01$). Main effects revealed a positive association between the COI and PA (coef=0.001,$p<0.01$), with post-hoc predicted prevalences indicating a 0.1 day increase in PA for every 20-point increase in COI. A significant interaction between COI and urban-rural status was observed (coef=-0.001,$p<0.01$) wherein urban and rural adolescents living in areas with a COI of 10 had a 0.5-day difference in PA, while urban and rural adolescents living in areas with a COI of 90 had a 0.1-day difference. Conclusions PA among urban adolescents may be disproportionally influenced by neighborhood opportunity. Implications for Policy and Practice Childhood opportunity indicators have a disproportionate impact on urban youth PA. Childhood opportunity indicators should be primarily used to guide PA policy in urban settings, while rural areas require more research to adequately inform policy action.

Mexico

Obesity and High Blood Pressure in Mexican Youth Aged 5–19: Statewide Screening Findings

AUTHORS

Jauregui, E.[1], Pérez-Maravilla, J.M.[1], López-Taylor, J.R.[1], Soria-Rodríguez, R.[1], Elizalde-Villarreal, M.[2], González-Navarro, E.[2], Ocampo-Chavarría, A.[2]

AFFILIATIONS

[1]*University of Guadalajara*
[2]*State Health Services.*

Background: Physical inactivity is a key modifiable factor for early prevention of cardiometabolic risk. Purpose: To estimate the prevalence of obesity and high blood pressure and assess their associations with not meeting physical activity (PA) recommendations in screened children and adolescents. Methods: Analytical cross-sectional study of 3,749 participants aged 5–19 years from the statewide "Módulos de Bienestar Familiar" program in Jalisco, Mexico. PA was assessed with assisted structured questionnaires and classified by WHO recommendations (≥60 min/day under 17 years; ≥150 min/week at 17 or older). Obesity was defined as WHO BMI-for-age z-score above +2 SD. Blood pressure was classified using pediatric percentiles (AAP/AHA criteria and Mexican regulations); high blood pressure comprised elevated blood pressure and higher categories. Crude odds ratios (ORs) were estimated with Pearson's chi-square and adjusted ORs with logistic regression adjusted for age and sex using Python 3.x. Results: Mean age was 11.7±3.5 years; 52.0% were female; 36.4% did not meet PA recommendations and 66.0% reported digital sedentary behavior above 2 h/day. Obesity prevalence was 19.4% and high blood pressure 28.2% (Stage 1: 10.1%; Stage 2: 12.0%). Obesity was more frequent among non-meeting participants (22.2% vs 17.7%; p=0.001) and remained independently associated (adjusted OR=1.227; 95% CI: 1.036–1.453; p=0.018). High blood pressure was less frequent in the non-meeting group (26.2% vs 29.4%; crude OR=0.850; p=0.037), reflecting age confounding (non-meeting group younger: 11.0 vs 12.2 years); no adjusted association was observed (OR=0.996; 95% CI: 0.853–1.163; p=0.962). Conclusions: Not meeting PA recommendations was independently associated with obesity but not with high blood pressure in Mexican youth. Implications for Policy and Practice: Findings support family counseling and school- and community-based PA promotion as core strategies for pediatric obesity prevention; reducing high blood pressure likely requires integrated approaches beyond PA (diet, weight management, clinical follow-up).

Mexico

Cultural adaptation of the Spanish version of the Global Adolescent and Child Physical Activity Questionnaire

AUTHORS

Argumedo, G.[1], Benavides-Castro, J.K.[2], Sarmiento, O.L.[2], Angulo, G.[3], Brazo-Sayavera, J.[3], Zavala Crichton, J.P.[4], Larouche, R.[5], Yañez Sepulveda, R.A.[6]

AFFILIATIONS

[1]*National Institute of Public Health*

[2]*School of Medicine, Universidad de los Andes, Bogotá, Colombia*

[3]*Department of Sports and Computer Science, Universidad Pablo de Olavide, Sevilla, Spain*

[4]*MOVED Research Group. Universidad Andrés Bello, Chile*

[5]*University of Lethbridge, Alberta. Canada*

[6]*MOVED Research Group. Universidad Andrés Bello , Chile*

Background Physical activity is a key behavior for achieving health and well-being. The app-based Global Adolescent and Child Physical Activity Questionnaire (GAC-PAQ) for children and adolescents aged 8–17 years was developed in 17 countries across different income levels, including four Spanish-speaking countries. Purpose To report lessons learned from the translation and cultural adaptation processes of a multinational physical activity measurement instrument for children and adolescents across four Spanish-speaking countries, using a multi-method approach. Methods Four written questionnaire versions from Mexico, Spain, Colombia, and Chile were analyzed using a qualitative approach. Subsequently, a natural language processing (NLP) algorithm was applied in Python 3.10 to examine cross-cultural adaptations of the GAC-PAQ across participating Spanish-speaking countries. NLP was conceptualized as a branch of artificial intelligence that uses machine learning to understand, interpret, and adapt nuances in human language. This approach supported a more objective assessment of the cultural adaptation process, aligning directly with the study objective. Results Key findings highlighted linguistic and cultural nuances that required the development of country-specific Spanish-language versions of the app-based questionnaire. Despite sharing a common language, Spain and Mexico showed substantial differences in vocabulary related to physical activity and active travel. Terminology referring to activity intensity, duration, modes of travel, types of work, household chores, volunteering, sports, and other local expressions required country-level adaptation. Conclusion The Spanish versions of the app-based questionnaire GAC-PAQ were translated and culturally adapted concurrently with the instrument's development. These insights informed revisions to simplify wording, incorporate culturally relevant examples, and clarify key constructs within each national version. Implications for Policy and Practice Lessons learned from this study may guide Spanish-speaking countries in integrating local context into future app-based questionnaire translation and adaptation processes for physical activity or other health behaviours. Funding. Canadian Institutes of Health Research (CIHR)

Chile

24-hour movement behaviors and cognitive functions in vulnerable Children: Play & Cognition baseline.

AUTHORS

Bustamante-Ara, N.[1]

AFFILIATIONS

[1]*Universidad Autónoma de Chile*

Background: Lifestyle and behavioral factors significantly influence cognitive development from early childhood. This study aimed to evaluate the association between 24-hour movement behaviors and cognitive functions in schoolchildren from a socially vulnerable context. Methods: A cross-sectional analysis was conducted using baseline data from 80 first-grade students (aged 6-7 years) enrolled in the Play & Cognition study (NCT NCT05020041). Moderate-to-vigorous physical activity (MVPA) was measured using accelerometers, while screen-time and sleep duration were assessed via questionnaires. Cognitive functions, including attention, memory, executive function, and visuospatial skills, were evaluated with the Neuropsychological Assessment Test. Multiple linear regression models were applied, adjusting for age, sex, maternal education level, and school cluster. Results: Only 1.2% of participants met all three recommended 24-hour movement behaviors guidelines. The mean MVPA was 14.3±10.3 minutes per day (23% of the recommendation), sleep duration was 10.4±1.5 hours per night, and screen-time was 5.3±2.6 hours per day. No statistically significant associations were found between adherence to 24-hour movement behaviors and any cognitive function domain (β range: 0.29 to 1.24, all $p>0.05$). Conclusions: Schoolchildren in socially vulnerable contexts had an extremely low adherence to 24-hour movement behaviors. These findings underscore the urgent need for targeted public health interventions to promote healthy behaviors in vulnerable child populations and support optimal cognitive development.

India

Integrating Physical Literacy into the 24-Hour Movement Behavior among Young Adults

AUTHORS

Dhasmana, A.[1], Singh, K.[2], Sahu, D.K.[2], yadav, S.[2]

AFFILIATIONS

[1]*LNIPE, gwalior*

[2]*Lakshmibai national institute of physical education, gwalior*

Background The 24-hour movement behaviour framework integrates physical activity, sedentary behaviour, and sleep as interconnected determinants of health. Limited evidence exists regarding how physical literacy relates to integrated movement behaviours and mental wellbeing among young adults in community settings. Purpose To examine associations between 24-hour movement behaviours, physical literacy, and mental wellbeing among young adults aged 18–25 years. Methods A cross-sectional survey was conducted among young adults aged 18–25 years. Moderate-to-vigorous physical activity(MVPA) was assessed using the IPAQ-Short Form; sedentary behaviour via daily screen time; sleep duration via self-report; physical literacy using the Perceived Physical Literacy Instrument(PPLI); and mental wellbeing using the WHO-5 Wellbeing Index. Participants were categorized according to adherence to international 24-hour movement recommendations. Multivariate regression analyses examined associations between movement behaviours, physical literacy, and wellbeing with statistical significance set at $p < 0.05$. Results Preliminary findings indicate low adherence to integrated 24-hour movement recommendations. Higher physical literacy was positively associated with MVPA and adequate sleep , and inversely associated with excessive screen time . Participants meeting ≥2 movement recommendations demonstrated significantly higher wellbeing scores .Meeting a greater number of movement recommendations is positively associated with higher wellbeing scores ($p < 0.05$). Conclusions Adherence to comprehensive 24-hour movement recommendations appears limited among young adults. Physical literacy may play an important role in promoting healthier movement profiles and supporting mental wellbeing. Implications for Policy and Practice Public health strategies targeting young adults should integrate physical literacy development within 24-hour movement promotion initiatives to improve mental wellbeing and reduce lifestyle-related risk. Funding No external funding.

United States

Bridging the Gap in Early Childhood Motor Development: Preliminary Evidence from a Public Preschool Program

AUTHORS

Chuhdry, A.[1], Freire, G.[2], da Silva, J.[3], de Lira, C.[3], Marques, M.[3], Tassitano, R.[4], Chuhdry, A.[4]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*

[2]*Department of Physical Education. University State of Maringá. Paraná, Brazil*

[3]*Associate Program of Physical Education. University State of Pernambuco. Pernambuco, Brazil*

[4]*Department of Health and Kinesiology, University of Illinois, Urbana-Champaign, Illinois, United States of America*

Background: Early childhood is a critical period for motor development and a foundation for lifelong well-being. Public programs that integrate structured movement activities into early education can help mitigate disparities in motor competence. Purpose: This study aims to describe and compare the motor competence of children participating in an early childhood motor development program across sex, age group, and political-administrative region. Methods: We conducted a population-based cross-sectional study among 1,497 children aged 3–6 years enrolled in public day-care centers in Recife, Brazil.Children were randomly and proportionally sampled across six Political-Administrative Regions (PARs). PARs were categorized into low, medium, and high social vulnerability using the Social Vulnerability Index. Trained educators assessed motor competence using the Test of Gross Motor Development–2. Group differences in locomotor, object-control, and global motor scores were examined using ANOVA with Tukey post-hoc comparisons. Within-region inequality in motor performance was measured using the coefficient of variation. Crude and adjusted linear regressions estimated associations (β,95%CI) of vulnerability category, age, and sex with motor outcomes. Results: Mean global motor scores varied across regions, ranging from 59.45±18.93 in PAR 4 to 72.88±21.16 in PAR 6, with the greatest dispersion observed in PARs 3 and 4. Motor competence increased significantly with age across all domains ($p < 0.001$). Boys demonstrated higher object-control scores($\beta = -1.46$; 95%CI:−2.20,−0.67), while girls performed slightly better in locomotor skills($\beta = 1.05$; 95%CI:0.06,2.04). After adjustment for age and sex, children in high-vulnerability regions had significantly lower scores than those in low-vulnerability regions for both object-control ($\beta = -6.38$; 95%CI:−7.50,−5.26) and global motor competence ($\beta = -7.26$; 95%CI:−9.56,−4.97), with moderate-to-large regional effects ($\eta^2 = 0.08–0.10$). Conclusions: Despite expanded access to structured movement, substantial regional motor competence inequalities persist in socially vulnerable areas. Implications for Policy and Practice: Targeted investments in educator training, facility quality, and object-control programming are needed to reduce territorial disparities. Funding: None

Canada

Group-Based and One-On-One Physical Activity for Post-Secondary Student Mental Health: Examining Effectiveness and Implementation

AUTHORS

deJonge, M.[1], deJonge, M.[1], Thibodeau, D.[1], Quesnel, D.[1], Yuen, S.[1], Sabiston, C.[1]

AFFILIATIONS

[1]*University of Toronto*

Background Physical activity (PA) is an effective intervention for improving post-secondary student mental health (MH). Yet, there is limited focus on effective delivery modes and implementation considerations to support dissemination of research findings into practice within post-secondary settings. Purpose To evaluate the effectiveness of a 6-week one-on-one (1:1) and group-based PA intervention compared to a waitlist control on MH, social well-being, and PA behaviour. Implementation outcomes (acceptability, fidelity, reach, and adherence) were also examined. Methods A mixed-methods hybrid effectiveness-implementation evaluation of a three-arm parallel randomized controlled trial was conducted. Physically inactive students [N = 115; M (SD)age = 25.42 (6.14); 76% women; 60% diagnosed mental illness] experiencing poor MH were randomized to 1:1 PA (n = 40), group-based PA (n = 41), or a waitlist (n = 34). Outcomes were assessed at baseline (T1), 6-weeks (T2), and 1-month follow-up (T3). Effectiveness outcomes were analyzed using linear mixed-effects modelling. Implementation outcomes were analyzed using a mixed-methods approach. Results Relative to the waitlist, both PA formats led to immediate (T1-T2) and longer-term (T1-T3) reductions in depression and psychological distress, alongside improvements in well-being and social connectedness. 1:1 delivery reduced anxiety at both timepoints and improved social support at longer-term (T1-T3), whereas group delivery showed anxiety reductions at longer-term only. Immediate effects were maintained (T2-T3). The 1:1 format demonstrated higher adherence, acceptability, and fidelity to supporting students' capability for PA. Conclusions Findings highlight delivery mode as a key contextual factor in the PA-MH relationship that influences both intervention effectiveness and implementation outcomes in post-secondary settings. Implications for Policy and Practice Embedding PA within student MH policy necessitates strategic attention to delivery mode, with targeted implementation strategies to optimize reach, engagement, and effectiveness across group-based and 1:1 formats.

Funding Doctoral fellowship funding from the Social Sciences and Humanities Research Council; Inlight Student Mental Health Research Grant.

SHORT ORALS

7 Oct | Shaping physical activity through the built and natural environment

Session Chair: Olga Lucia Sarmiento

Mexico

Safety, Streets, and Stations: Environmental and Safety Dimensions of Pedestrian Experiences in Monterrey, Mexico

AUTHORS

Resendiz, E.[1], Resendiz, E.[2], Legaria Peña, J.U.[3], Basu, R.[4], Ponce-López, R.[3], Escobedo Ruíz, N.[3], Placencia Vega, C.J.[5], Martínez Santillán, A.[3], Ferreira, J.[6]

AFFILIATIONS

[1]*Instituto Tecnologico y de Estudios Superiores de Monterrey*

[2]*Tecnologico de Monterrey, Center for the Future of Cities; 1. Tecnologico de Monterrey, School of Architecture, Art, and Design*

[3]*Tecnologico de Monterrey, Center for the Future of Cities*

[4]*Department of Urban Studies and Planning, Massachusetts Institute of Technology; School of City and Regional Planning, Georgia Institute of Technology*

[5]*Tecnologico de Monterrey, School of Architecture, Art, and Design*

[6]*Department of Urban Studies and Planning, Massachusetts Institute of Technology*

Background: Latin America's motorization rate has exceeded the global average over the past decade, at the expense of public transport use. However, walking remains the primary mode of transportation, accounting for one in every three trips. While research has advanced our understanding of how perceptions of the built environment factors relate to walking behavior, how these factors influence pedestrians' walking experiences is less explored. Purpose: This study examines how pedestrians' perceptions of urban and social environment factors shape walking experiences within public transportation catchment areas, using data collected from a sample of adults in Monterrey, Mexico. Methods: We conducted intercept surveys around two metro stations and estimated a structural equation model to examine direct and indirect effects of latent constructs on walking experiences. Results: Our findings indicate that perceived safety plays a significant role in mediating the relationship between the built environment and walking experience. How people perceive pedestrian infrastructure affects their walking experience directly and indirectly through safety perceptions, with varying impacts across stations. Additionally, how people perceive pedestrian infrastructure at the station in comparison to that of their home neighborhood can influence their trip quality. Conclusions: These insights can help us understand how the urban environment affects walking experiences in Mexican metropolitan areas and can help inform better urban design around public transit stations. Implications for Policy and Practice: Future investments in pedestrian infrastructure should consider the mediating role of safety from crime and traffic to ensure that all residents can benefit from these investments.

Funding: Volvo Research and Educational Foundations (VREF) (EP-2023-WK-08) and Challenge-Based Research Funding Ruta Azul Program 2023 (CCM-TM-12-166)

United Kingdom

Applying a complex systems approach to the evaluation of traffic restriction schemes outside schools

AUTHORS

Alliott, O.[1], Ogilvie, D.[1], Anderson, L.[2], Patterson, R.[1], Garrott, K.[3], Carey, E.[1], Guell, C.[4], Panter, J.[1]

AFFILIATIONS

[1]*University of Cambridge*
[2]*University of Bristol*
[3]*University of Birmingham*
[4]*University of Exeter*

Background Population health interventions may change physical, social or fiscal environments to shift health behaviours and often operate within complex systems of interacting factors. Systems methods are frequently suggested as a way to provide an overview of these interactions and to understand how or why interventions might (or might not) influence health behaviours such as physical activity. Despite this, there are few empirical examples demonstrating how complex systems methods have been applied in public health evaluations. Methods We describe our application of a qualitative complex systems approach to evaluate a population health intervention: traffic restriction schemes, often referred to as School Streets, where motor vehicle access outside schools is restricted at pick-up and drop-off times. These schemes are increasingly implemented internationally to support active travel. Following the five-step approach outlined by Alvarado et al. (2023), we developed research propositions, systems archetypes and a causal loop diagram to understand the system in which traffic restriction schemes are implemented and their impacts on school-based active travel. This acted as a guiding theory to support our on-going evaluation. Results By bringing together multi-disciplinary stakeholder perspectives, we identified unanticipated system interactions, including initial tensions and conflicts between users of different active travel modes (e.g. cyclists and pedestrians). Using causal loop diagrams and systems archetypes, we developed research propositions relating to funding and implementation, safety, habit formation and unintended consequences, highlighting how impacts may vary across contexts. Conclusions Applying a complex systems approach deepened our understanding of how traffic restriction schemes interact with their broader social, policy and environmental contexts and supported the development of a guiding theoretical framework for our ongoing evaluation. This work aims to stimulate discussion, offer transferable insights for future evaluations of population-level physical activity interventions and encourage the wider use of systems methods in public health evaluation.

Finland

Associations of nature visits with early childhood physical activity and motor skills across sociodemographic groups

AUTHORS

Wackström, N.[1], Uusitalo, K.[1], Simonsen, N.[1], Aaltonen, S.[2], Karppinen, T.[3], Luoma, U.M.[4], Launistola, H.[1], Roos, E.[1], Engberg, E.[1]

AFFILIATIONS

[1]*Folkhälsan Research Center*
[2]*Institute for Molecular Medicine Finland FIMM*
[3]*University of Turku*
[4]*Oulu Deaconess Institute Foundation sr.*

Background Evidence on the benefits of nature visits in early childhood remains limited and it is unclear whether these potential benefits differ across sociodemographic groups. Purpose We investigated associations of nature visits with physical activity (PA), sedentary time, and motor skills in early childhood, as well as whether sex, household income, and residential setting moderated these associations. Methods We used cross-sectional data from 3−4-year-old children (N=820) from the SUNRISE Finland Study (2022−2023). Children wore accelerometers for seven days and performed the Supine Timed Up and Go, single-leg balance, standing long jump, and handgrip strength tests. Caregivers reported sociodemographic factors and how often they visit nature with their child. We categorised relative household income into three levels, and classified residential setting as urban or rural. We investigated associations and moderations using linear mixed models, adjusting for child age and sex, household income, residential setting, and season, with a family-level random intercept. Results More frequent nature visits were associated with less sedentary time (β=-3.73, 95% CI [-7.20, -0.26], p=0.035), more moderate-to-vigorous (β=0.87, 95% CI [0.13, 1.60], p=0.021) and total PA (β=3.54, 95% CI [0.47, 6.62], p=0.024), and better standing long jump (β=0.80, 95% CI [0.09, 1.52], p=0.028). Sex and household income moderated some associations; more frequent nature visits were also associated with better handgrip strength among boys (β=0.16, 95% CI [0.05, 0.27], p=0.005), and better balance in the lowest income group (β=0.43, 95% CI [0.09, 0.77], p=0.013). Conclusions Visiting nature is a cost-effective way to support children's PA and motor skills, with possible additional benefits for boys and children from families with lower income. Implications for policy and practice Access to natural environments and nature activities could encourage families of different sociodemographic backgrounds to visit nature. Funding The Swedish Cultural Foundation in Finland, The Society of Swedish Literature in Finland, Helsinki municipality

United States

Optimizing Physical Activity in Public Open Spaces: Assessing the Adaptability of Place-Activation Strategies for Mexico

AUTHORS

Montero-Zamora, P.[1], López-Soto, A.[1], Hernández, C.[2], Garza, C.[1], Kepper, M.[3], Brownson, R.R.[3], Martínez, A.M.[2], Martínez, M.[2], González, O.[2], Orozco-Lapray, D.[2], Brown, S.[4], Jáuregui, A.[2], Salvo, D.[1]

AFFILIATIONS

[1]*The University of Texas at Austin*
[2]*National Institute of Public Health of Mexico*
[3]*Washington University in St. Louis*
[4]*UTHealth Houston at Austin*

Background: Without complementary place-activation strategies, public open space-built environment improvements alone are insufficient for increasing community-wide physical activity (PA). To date, most evidence-based place-activation strategies have been developed and tested in high-income countries (HICs). Purpose: Assess perceived adaptability and describe community- and stakeholder-informed adaptation recommendations for implementing HIC-derived place-activation strategies in low-income urban neighborhoods (LIUN) in Mexico. Methods: Survey data were collected from stakeholders and local residents of LIUN across 10 Mexican cities. Participants rated 13 HIC-derived strategies on adaptability using 5-point Likert scales. Mean adaptability scores were calculated per strategy, and a score of 5 was used to estimate the proportion of respondents endorsing strategies as "highly adaptable." Concurrently, qualitative data from interviews and focus groups were examined inductively to identify recommended adaptations for the Mexican context. Results: Thirty-one stakeholders and 95 residents participated. Overall, perceived adaptability was high across all 13 strategies (mean Likert rating =4.53±.40). Among stakeholders, sports tournaments (87.1%) and community-led space maintenance (87.1%) received the greatest endorsements as "highly adaptable". Among residents, educational activities (68.4%) and sports tournaments (64.2%) were most frequently reported as highly adaptable to the Mexican context. Key recommended adaptations per the qualitative data included integrating PA into multipurpose activities, reinforcing pre-existing informal community practices, engaging families to support youth participation, and using locally meaningful incentives to sustain engagement. Conclusions: Many HIC-derived place-activation strategies were perceived as highly adaptable for low-income urban settings in Mexico among both stakeholders and/or local residents. Differences in perceived adaptability between stakeholders and residents underscore the importance of integrating multiple perspectives when planning scale-up. Implications for Policy and Practice: Despite major contextual differences between Mexico and HICs, multiple HIC-derived place-activation strategies appear adaptable for Mexico, underscoring their scale-up potential for LMICs, without the need to rely on de novo strategy development and efficacy testing. Funding: NIH (R01MD019155)

Australia

Developing and testing globally relevant indicators of healthy, active cities for early childhood

AUTHORS

Lowe, M.[1], Schipperijn, J.[2], Christian, H.[3], Zhao, M.[4], Villanueva, K.[5], Hinckson, E.[6], Resendiz, E.[7], Krstikj, A.[8], Adlakha, D.[9], Higgs, C.[10], Salvo, D.[11], Cerin, E.[12], Schifanella, R.[13], Boeing, G.[14], Liu, S.[15]

AFFILIATIONS

[1]*Centre for Urban Research, RMIT University*

[2]*Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark*

[3]*The Kids Research Institute Australia, The University of Western Australia, Perth, Western Australia, Australia; School of Population and Global Health, The University of Western Australia, Perth, Western Australia, Australia*

[4]*The Kids Research Institute Australia, The University of Western Australia, Perth, Western Australia, Australia*

[5]*Social Equity Research Centre, RMIT University, Melbourne, Victoria, Australia; Policy and Equity Group, Murdoch Children's Research Institute, Parkville, Victoria, Australia*

[6]*School of Sport and Recreation, Auckland University of Technology, Auckland, New Zealand*

[7]*School of Architecture, Art and Design, Tecnologico de Monterrey, Mexico City, Mexico; Center for the Future of Cities, Tecnologico de Monterrey, Monterrey, Mexico*

[8]*School of Architecture, Art and Design, Tecnologico de Monterrey, Mexico City, Mexico*

[9]*Department of Urbanism, Faculty of Architecture and the Built Environment, Delft University of Technology, Delft, Netherlands*

[10]*Centre for Urban Research, RMIT University, Melbourne, Victoria, Australia*

[11]*Center for Research to Community Impact, and Department of Kinesiology and Health Education, College of Education, University of Texas at Austin, Austin, USA*

[12]*Mary Mackillop Institute for Health Research, Australian Catholic University, Melbourne, Victoria, Australia*

[13]*University of Turin, Turin, Italy*

[14]*Sol Price School of Public Policy, University of Southern California, Los Angeles, California, USA*

[15]*University of Minnesota, Minneapolis, Minnesota, USA*

Background: The importance of neighborhood built environments for early childhood physical activity, health and development is increasingly recognized. Many global urban indicator initiatives, such as the Global Observatory of Healthy and Sustainable Cities (GOHSC), focus on adults' active living. Several child-friendly cities measurement tools exist, but there is a need for indicators that specifically measure determinants of active built environments for preschool children in cities worldwide. Purpose: This study developed and tested a comprehensive, globally relevant set of policy and spatial indicators of active, healthy cities for children five years and under. Methods: We conducted a scoping review of existing indicators and policy and built environment determinants of healthy cities for preschool children. This informed gap analysis, adaption of the GOHSC's indicators, and development of new evidence-based policy and spatial indicators relevant to early childhood. The validity and global relevance of the indicators was tested on diverse cities internationally. Results: Policy indicators assessed the presence and quality of policies across a wide range of domains, including public open space access, housing quality, and safe and playable streets. Spatial indicators measured and mapped inequities in access to built environment features and destinations relevant to young children, including parks, playgrounds and preschools. International validation demonstrated that the indicators can accurately measure and compare diverse cities internationally. Conclusions: The indicators will be made available open access via the GOHSC, so they can be applied to any city internationally. Future research could develop global urban indicators relevant to school-age children and older adults, to support a life-course measurement approach. Implications for Policy and Practice: The internationally consistent and comparable indicators can help planners and policymakers to evaluate, benchmark and deliver healthy and active built environments for young children. Funding: Australian Research Council Centre of Excellence for Children and Families over the Life Course (CE200100025).

United Kingdom

Housing Type and Tenure as Structural Barriers to Cycling for Active Transport

AUTHORS

Harrington, D.[1], Calvillo Munoz, C.[1]

AFFILIATIONS

[1]*University of Strathclyde*

Background Cycling for active transport can address multiple global challenges including climate and health. Certain groups may, however, face unseen or additional barriers. Purpose To examine housing-related barriers to cycling access for those we consider vulnerable based on ethnicity and length of UK residence, drawing on quantitative housing data and qualitative lived experience. Methods Scottish 2022 Census data were used to identify housing type and tenure (flat/apartment, social/rented housing), ethnicity (white group vs. ethnic minority group) and length of UK residence (born vs. <2 years). Transcripts from focus group with nine vulnerable individuals (refugees, asylum seekers and recent migrants) were analysed using a hypothesis-driven approach. Results At the population level, 47% of ethnic minorities lived in flats/apartments compared to 26% of white groups, increasing to 76% for ethnic minorities residing in the UK <2 years). Numbers living in social/rented housing was over double for those residing in the UK <2 years compared to those born in the UK for both white (32% vs. 78%) and other ethnic groups (38% vs. 85%). Focus group participants reported an absence of secure external storage or space within their dwelling for a bicycle. Generally, storage in indoor communal areas (e.g., in shared hallways) was not safe, or risked conflict with their housing provider where such practices would be considered a safety hazard to other residents. Conclusions Vulnerable groups (ethnic minority and length of UK residence) living in flats/apartments or social/rented housing may have lower ability to store bicycles or to make/request changes to their living arrangements to transition to active transport. Policy and Practice Implications Housing and transport stakeholders should consider ways to address inequalities in active transport uptake stemming from housing type and tenure. These data are also useful for organisations concerned with the unequal impacts of the net zero transition.

United States

Playground Design Features and Children's Active Play: An Exploratory Study Across Neighborhood Income Levels

AUTHORS

Miao, F.[1], Le, S.[2], Garza, C.[2], Morrison, B.[2], Reininger, K.[2], Pellerin, B.[2], Hunt, E.[3], Jowers, E.[2], Salvo, D.[2]

AFFILIATIONS

[1]*The University of Texas at Austin*

[2]*The University of Texas at Austin, Austin, Texas, USA*

[3]*University of Texas Health Science Center at Houston (UTHealth Houston) School of Public Health in Austin, Austin, TX, USA*

Background Playgrounds are important settings for children's active play, yet, in the U.S. context, limited evidence is available on the role of playground design characteristics for active play. Purpose Examine associations between playground design characteristics and levels of children's active play, and whether these associations differ by neighborhood income level. Methods An adapted version of the System for Observing Play and Recreation in Communities (SOPLAYGROUND) was used to assess playground use across six public playgrounds in Austin, Texas, USA. Playground design characteristics were assessed with structured audits and photographic documentation, measuring the presence (yes/no) and counts of key features. Children's active play was operationalized as the proportion of children observed engaging in moderate-to-vigorous physical activity. Linear regression assessed associations between playground design features and active play. Heterogeneity analyses tested whether associations differed by neighborhood income level. Results The proportion of children engaged in active play across playgrounds ranged from 0.16 to 0.52. Overall number of play structures (β=0.032±0.007, p=0.018) was positively associated with active play, and findings suggest this result is primarily driven by the availability of climbing structures (β=0.064±0.024, p=0.074), accessible bathrooms (β=0.274±0.091, p=0.058), and sensory play equipment (β=0.274±0.091, p=0.058). The availability of swings was found to be more strongly associated with active play in low-income playgrounds (β=0.183±0.000, p=0.001) than in high-income playgrounds (β=-0.274±0.158, p=0.334) (test for interaction: p=0.072). Conclusions Features supportive of risky and sensory play may help optimize active play in playgrounds, although non-play related structures that increase conveniency appear similarly important (e.g., restrooms). The influence of specific design features may vary by neighborhood context. Practical implications Parks and recreation departments and playground designers can help promote public health by using empirical data for optimizing active play.

Funding Partially supported by a gift from Forever Lawn USA to the People, Health, and Place (Salvo) Lab.

South Africa

Physical activity security:is it time to "change the conversation" for environmental justice in LMICs?

AUTHORS

Lambert, E.V.[1], Kolbe-Alexander, T.[2], Mielke, G.[3]

AFFILIATIONS

[1]*University of Cape Town*

[2]*School of Health and Medical Sciences, Faculty of Health, Engineering and Sciences,, University of Southern Queensland, Ipswich, Australia*

[3]*School of Public Health, Faculty of Medicine,, University of Queensland, Queensland, Australia*

Introduction: While the relationship between physical activity (PA) and health has been well established, its link with sustainable development is more recent. PA has been described as “choice-based” or “necessity-driven”, yet we argue that environmental justice is required for PA security to be achieved in lower- and middle-income countries (LMICs). Methods: We conducted a brief review (SCOPUS, 1994–2024) combining “Physical Activity” with “Health,” “Behaviour,” “Environment,” “Policy,” “Social determinants,” “Equity,” “Sustainable development,” and “Human Rights.” Secondly, we analysed publicly available data from 143 countries (LMIC/UMIC n=99; HIC n=44) including GINI, HDI, % urbanisation, % slum dwelling, life expectancy, obesity, CVD deaths, road deaths, deaths due to personal violence, pollution, % land public open space (POS), human rights indices and physical inactivity (PiA). Using regression and mediation analyses (JASP 0.95 Intel) we examined these social determinants and environmental justice factors associated with PiA. Results: In 1994, 858 PA-related manuscripts were published compared to 30,565 in 2024. While 40–41% focused on health, <7% addressed environment, <4% policy, <2% social determinants and <1% human rights, even in 2024. In our ecological model, PiA prevalence was higher in HIC (33%) than LMIC/UMIC (25%, $p<0.001$). Urbanisation, POS, obesity, CVD mortality and life expectancy were also higher in HIC, whereas air pollution, violence and road mortality were higher in LMIC/UMIC ($p<0.001$). HDI was strongly positively associated with PiA ($p<0.001$). Although HDI was inversely associated with violence, road mortality and inequality ($p<0.001$), only violence independently predicted PiA ($p=0.024$). Indirect effects through violence, road mortality, inequality and POS were not statistically significant. Conclusion: Lower inactivity prevalence in LMIC/UMIC settings may reflect necessity-driven movement occurring despite often unsafe and inequitable conditions. These findings support reframing the discourse toward “physical activity security" as a rights-based issue, emphasising safe, equitable and choice-based opportunities for active living in lower- and middle-income contexts.

Mexico

Who benefits most from Renovated Open Public Spaces in Mexican Cities?

AUTHORS

Hernandez-Alcaraz, C.[1], Resendiz, E.[2], Flores-Pimentel, D.[3], Garza, C.[4], Le, S.[4], Montero-Zamora, P.[5], Kepper, M.[6], Brownson, R.[7], Martinez, A.M.[3], Martinez, M.[3], Gonzalez, O.[3], Lopez-Soto, A.[5], Orozco-Lapray, D.[5], Brown, S.[8], Salvo, D.[4], Jauregui, A.[3]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*

[2]*1. Tecnologico de Monterrey, Center for the Future of Cities, Ciudad de México, México. 2. Tecnologico de Monterrey, School of Architecture, Art, and Design, Ciudad de México, México*

[3]*Dirección de Vigilancia de la Nutrición, Centro de Investigación en Nutrición y Salud, Instituto Nacional de Salud Pública, Cuernavaca, Morelos, México*

[4]*People, Health and Place Lab & Center for Research to Community Impact (CRCI), College of Education, The University of Texas at Austin, Austin, USA*

[5]*Center for Research to Community Impact (CRCI), College of Education, The University of Texas at Austin, Austin, USA*

[6]*Prevention Research Center, School of Public Health, Washington University in St. Louis, St. Louis, MO, USA*

[7]*Prevention Research Center, School of Public Health, Washington University in St. Louis, and Alvin J. Siteman Cancer Center, Washington University School of Medicine St. Louis, MO, USA*

[8]*Department of Management, Policy, and Community Health, The University of Texas School of Public Health, Austin, TX, United States*

Background: Residents of low-income neighborhoods on the peripheries of Mexican cities face long commuting times and limited urban infrastructure, restricting opportunities for leisure-time physical activity. Recently, a national program (Mi México Late) and local governments have renovated or developed open public spaces (OPS) in Mexican cities. Purpose: To characterize the distribution of OPS renovations and developments by neighborhood-level disadvantage index and urban location in 10 Mexican cities (2023–2025). Methods: We reviewed renovations and developments using open-access sources and official social media from national, state, municipal, and metropolitan governments in cities previously selected for the Global Observatory of Healthy and Sustainable Cities expansion in Mexico. Geographic coordinates of OPS projects were identified using Google Maps and geolocated in QGIS. Neighborhood-level disadvantage index data were obtained from the Mexican Council of Population and linked to OPS projects through a spatial join. Five-kilometer buffers were generated around each city's main downtown area; neighborhoods outside the buffer were classified as peripheral. Population density was calculated at the neighborhood level. Renovations and developments were described by disadvantage index level, periphery status, and city. Differences were assessed using chi-square tests. Results: More than 50% of renovations and developments occurred in highly populated and dense cities, primarily in neighborhoods located in cities with medium–high competitiveness. Overall, only 13.3% of renovations took place in OPS located in low-income peripheral neighborhoods. City-level analyses showed significant differences in distribution by disadvantage index level and periphery, indicating that renovations disproportionately benefited high-income and centrally located neighborhoods. Conclusions: OPS renovations and developments are disproportionately distributed and may exacerbate disparities in leisure-time physical activity opportunities in low-income urban peripheries. Implications for Policy and Practice: National and local programs should prioritize investment in high-quality OPS in low-income peripheries and incorporate community input to ensure spaces meet local needs. Funding: NIH-Award R01MD019155. SECIHTI-Postdoctoral Award.



Built environment impacts on physical activity in Canada: A systematic review of natural experiments

AUTHORS

Prince, S.[1], Lang, J.[1], Lawrason, S.[1], Vallières, E.[1], Butler, G.[1], Lake, A.[1], McCormack, G.[2]

AFFILIATIONS

[1]*Public Health Agency of Canada*
[2]*University of Calgary*

Background: The built environment supports physical activity (PA) by providing opportunities to be active in daily life. Natural experiments are valuable for assessing how real-world changes to the built environment affect PA and are critical for guiding policies to improve population-level PA. Purpose: To summarize the evidence from natural experiments that investigated the impacts of built environment changes on PA in Canada. Methods: Searches were conducted in MEDLINE, Embase, PsycINFO, ProQuest Public Health and SportDISCUS, from inception to 27 November 2024. Natural experiment evaluations that included a comparator or historical control group and assessed changes in PA associated with changes in the built environment were eligible. A narrative synthesis summarizes the evidence including the certainty of the evidence. Results: Results from the included natural experiments (n = 25) suggest positive effects, with low-to-moderate certainty, of increased walkability, new cycling and pedestrian infrastructure, bike share (bike rental) programs and new trails. However, there was very low-to-low certainty of no significant effects for bus rapid transit, school building and yard improvements and school zone improvements. Some evidence suggests negative effects of off-leash dog park areas on children's park-based PA and daycare yard improvements on moderate-to-vigorous PA. Conclusions: Few Canadian studies have evaluated the impact of built environment changes on PA, with most emerging in the last decade. Future studies should include larger and more diverse samples and all regions, control for confounders including seasonal variation in outdoor PA, use well-matched control groups and incorporate objective PA measures. Implications for Policy and Practice: Investments in walkability, cycling infrastructure, bike share systems, and trails appear promising for increasing PA. Natural experiments provide critical opportunities to evaluate the effectiveness of built environment changes aimed at improving PA and health and can guide more effective, evidence-informed planning and policy decisions.

SHORT ORALS

8 Oct | Advancing physical activity policy, practice and public health

Session Chair: Estelle V. Lambert

Canada

Who Meets MVPA Guidelines? School Type Differences in Antigua and Barbuda

AUTHORS

Nord-Leth, J.[1], Kemnele, K.[1], Walwyn, L.[2], Walwyn, D.[3], Thomas, A.[4], Airall, A.[5], Janssen, I.[1], Storey, K.[6], Levesque, L.[1]

AFFILIATIONS

[1]*Queen's University*

[2]*American University of Antigua College of Medicine*

[3]*Healthy Caribbean Coalition*

[4]*Healthy Schools Antigua & Barbuda*

[5]*Ministry of Education, Sports and Creative Industries, Antigua and Barbuda*

[6]*University of Alberta*

BACKGROUND: Achieving the goals of the WHO Global Action Plan on Physical Activity (GAPPA) requires strengthening surveillance and advancing equity-focused evidence in regions historically under-represented in global datasets, including Caribbean Small Island Developing States. Limited data from these contexts constrain understanding of how educational environments shape children's movement opportunities. In many Caribbean systems, public and private schools differ in resources, programming, and student composition. This study examined whether meeting MVPA recommendations differed by school location and school type among upper primary students in Antigua and Barbuda. METHODS: A total of 1,378 Grade 5/6 students across 52 public and private primary schools in Antigua and Barbuda self-reported the number of days in the past week they accumulated at least 60 minutes of MVPA using the single-item measure from the Health Behaviour in School-aged Children (HBSC) survey. This surveillance item demonstrates acceptable reliability and moderate validity against accelerometry but may overestimate activity and has not been validated in Caribbean settings. Students reporting 60 minutes on all 7 days were classified as meeting recommendations. Associations with school location (urban/rural) and school type (public/private) were examined using Rao-Scott chi-square tests accounting for clustering. RESULTS: Meeting MVPA recommendations was not associated with school location ($F(1,51) = 0.05$, $p = 0.824$). However, a significant association was observed between meeting MVPA recommendations and school type ($F(1,51) = 14.43$, $p = 0.0004$), with public school students more likely to meet MVPA recommendations than private school students. CONCLUSION: School type differentiated reported MVPA participation. While mechanisms were not measured, this likely reflects a combination of contextual factors at both the school and student levels that shape opportunities for daily movement. IMPLICATIONS FOR POLICY AND PRACTICE: Strengthening surveillance and examining school-level environments in Caribbean Small Island Developing States is essential to inform equitable, context-responsive PA strategies. FUNDING: CIHR PCS-195131

France

A decade of French physical activity policies: analysing evolution, characteristics and coordination (2015–2025)

AUTHORS

Noel Racine, A.[1], Vuillemin, A.[2]

AFFILIATIONS

[1]*Université Côte d'Azur*
[2]*Université Côte d'Azur, LAMHESS, France*

Background In recent years, physical activity (PA), have gained increasing prominence on the French national policy agenda. However, empirical evidence on policy implementation, intersectoral coordination, and the complementarity of related measures remains limited. Purpose To systematically map, characterize and analyze French national PA policies over the past decade, examining their evolution, implementation features and patterns of intersectoral coordination. Methods Systematic collection of policies from the Official Journal and ministerial websites using keywords related to physical activity and active travel. Policies were categorized by instrument type and analyzed according to their implementation characteristics (target populations, stated objectives, allocated resources, evidence base, monitoring mechanisms). Discourse network analysis (DNA) was conducted to examine patterns of intersectoral coordination, based on discourse similarity, implementing sectors, and policy complementarity. Results A total of 169 national policies were identified: Of these, 85 were legal-regulatory texts (e.g. laws, decrees, orders); 40 were administrative texts (e.g. circulars and instructions), and 44 were strategic documents (e.g. plans, strategies, roadmaps). This corresponds to an average of 15.4 policies per year. Analysis revealed significant gaps between policy formalization and implementation capacity. While PA consistently appeared on the policy agenda, it was most often framed as a secondary objective. PA policies lacked prioritized resource allocation and dedicated funding mechanisms. Preliminary findings from the DNA indicate fragmented intersectoral networks, with limited coordination between the health, education, sport, and transport sectors, despite overlapping target populations and policy objectives. Conclusions Despite a decade of sustained production of French national PA policies, implementation capacity has not increased proportionally. Insufficient resource allocation and weak intersectoral coordination appear to undermine policy effectiveness. Implications for Policy and Practice Policymakers should prioritize strengthening implementation mechanisms over further policy production, enhance dedicated funding streams, and establish formal intersectoral coordination structures to bridge identified network gaps between health, education, and transport sectors.

United States

Three Country Pilot Testing of the CATCH PE program in India, Kenya, and Colombia

AUTHORS

Pfledderer, C.[1], Kelder, S.[2], Hunt, E.[2], Hoelscher, D.[2]

AFFILIATIONS

[1]*The University of Texas Health Science Center Houston*

[2]*UTHealth School of Public Health*

Background Despite the well-documented benefits of physical activity, global disparities persist in structured physical education (PE), particularly in low- and middle-income countries (LMICs). The Coordinated Approach to Child Health (CATCH) PE program was designed to enhance physical activity levels among schoolchildren. Purpose To evaluate the feasibility and preliminary effectiveness of CATCH PE on middle school physical activity in India, Kenya, and Colombia. Methods A pretest-posttest study using a convenience sample of 10 schools per country (India, Kenya, and Colombia) was conducted. Classroom and PE teachers were trained in CATCH PE and subsequently implemented program activities during PE classes over a one-month period. The System for Observing Fitness Instruction Time (SOFIT) was used to assess physical activity during PE classes at baseline and at one-month follow-up. Differences in time spent in movement behaviors (lying down, sitting, standing, walking, moderate-to-vigorous physical activity [MVPA], and vigorous physical activity [VPA]) were examined using multilevel generalized linear models, with observations nested within teachers and teachers nested within schools. Results Across all three countries, with generally consistent patterns across settings, there were observed increases in minutes of walking (6.65 min; 95% CI: 3.06, 10.23), MVPA (20.61 min; 95% CI: 15.43, 25.79), and VPA (13.08 min; 95% CI: 9.16, 16.99) from pretest to posttest. There were also observed decreases in minutes of sitting (−3.03 min; 95% CI: −5.25, −0.82) and standing (−14.95 min; 95% CI: −19.76, −10.14). Conclusions This pilot study provides preliminary evidence that CATCH PE can be successfully implemented in LMIC settings and is a potentially effective strategy for increasing physical activity and reducing sedentary time during school-based PE. Implications for Policy and Practice With appropriate teacher training and support, CATCH PE can be feasibly implemented in diverse global school systems, supporting efforts to incorporate structured, evidence-based PE curricula in LMICs.

United Kingdom

Mental Health Promotion at Paris 2024: Olympic and Paralympic Sponsor Communication Across Four Countries

AUTHORS

Hale, G.[1], Piggin, J.[1], Ooms, L.[2], Algurén, B.[3], Sevdalis, V.[3], Furtado, S.[1]

AFFILIATIONS

[1]*Loughborough University*
[2]*Mulier Institute*
[3]*University of Gothenburg*

Background: Mega sport events offer global platforms for communication about the benefits of physical activity and health. Our Global Health Promotion and Sports Event Survey (Furtado et al., 2025) demonstrated that diverse health-related messages were communicated by Olympic sponsors and partners during the Paris 2024 Olympic and Paralympic Games. Although mental health messages were identified, the frequency and characteristics of these messages across countries remains unclear. Purpose: This study provides an in-depth analysis of mental health messages communicated during the Olympics in four countries (Brazil, the Netherlands, Sweden, and the UK). The aim is to examine how mental health was communicated and explore cross-country similarities and differences. Methods: We explored the characteristics of mental health-related messages (N = 68) using a directed content analysis. This involved deductive coding guided by the World Health Organization's (2022) definition of mental health, Keyes' (2009) dual continua model, and Ryff's (2007) psychological well being model. Categories captured whether messages emphasised psychological, emotional, or social dimensions of mental health. Results: Coding patterns indicate variation in how mental health was framed across countries. Many messages emphasised social well-being (e.g., belonging, inclusion, connection), while others adopted an individual-focused framing centred on confidence, motivation, and positive mood. Several messages encouraged healthy lifestyle behaviours, such as being more physically active, to promote mental health. Cross-country differences appeared to reflect contextual and cultural variation. Conclusions: Mental health promotion in Olympic related communication varied across countries and was often implicit. There is scope for more consistent and targeted mental health messaging in future mega sport events. Implications for Policy and Practice: Clearer and more intentional mental health messaging could enhance the public health impact of global sporting events. Funding: Not applicable.

United States

Sex inequities in physical activity and health research: the Global Observatory for Physical Activity

AUTHORS

Lamas, A.[1], Kohn, E.[2], Mejia-Grueso, J.[3], Hallal, P.[4], Pratt, M.[5], Ramirez-Varela, A.[6]

AFFILIATIONS

[1]*University of Illinois Urbana Champaign*

[2]*Federal University of Pelotas*

[3]*Global Observatory for Physical Activity-GoPA!, Houston, TX, USA.*

[4]*University of Illinois Urbana-Champaign*

[5]*Herbert Wertheim School of Public Health and Human Longevity Science, University of California San Diego, San Diego, CA, USA.*

[6]*School of Public Health, The University of Texas Health Science Center at Houston (UTHealth Houston), Houston, TX, USA*

INTRODUCTION: Acheiving gender equality and empowering all women and girls is a sustainable development goal. Gender equity in science is a topic of debate. A recent Lancet Series showed that women are particularly underrepresented in some key technological fields, that women scientists tend to be paid less, often have shorter careers and are less likely to be promoted and have their work published in high-impact journals. In this study, we analyze data on sex distribution in authorships in the field of physical activity and health. METHODS: Data from the Global Observatory for Physical Activity (GoPA!) third round of country cards were used. We analyzed the proportion of women and men as first and last authors in physical activity and health publications between 1950 and 2023. These data were derived from a systematic review of publications in the field – methods of such review are available in a previous publication. We only included in the analyses countries with 10 or more publications identied in the literature search. RESULTS: Data were available for 106 countries with at least 10 publications on physical activity and health identified in the systematic review. The proportion of women as first authors in physical activity and health publications was higher than 50% in 55% of the countries. However, the proportion of women as last authors in physical activity and health publications was higher than 50% in only 14% of the countries. CONCLUSION: Gender gaps are evident in physical activity and health research. Last authorship, which is often associated with leadership of laboratories and research groups, continues to be concentrated among men, in most countries. Efforts to reduce these inequities are needed to help the field move forward.

Australia

A practice-informed Planning for Liveability Toolkit supporting health equity in planning

AUTHORS

Davern, M.[1], Delahey, L.[2], Dunn, K.[2]

AFFILIATIONS

[1]*RMIT University*
[2]*Jesuit Social Services*

Municipal public health and wellbeing planning is core health planning responsibility of the 79 local governments that exist across the state of Victoria, Australia but limited tools and resources exist to support the development and evaluation of these plans and intersectoral action that promotes population health. The Planning for Liveability Toolkit was developed and co-designed with local government health planning leaders to develop practical and research-informed monitoring, evaluation and learning tools with a focus on liveability. The 3 year project was funded by the Victorian Health Promotion Foundation (VicHealth) and includes a range of new tools and resources identified by local government to support across council and integrated planning that supports health. Two specific tools co-designed with municipal health planning professionals specifically focus on the application of walkability and public open space assessments in integrated planning informed by an urban systems approach. This presentation will briefly describe the method, tools and resources that have been included in the Toolkit and the benefit of using liveability to communicate the social determinants of health and urban planning in the promotion of broader population health.

SHORT ORALS

8 Oct | Device-based physical activity assessment: validity, patterns and inequalities

Session Chair: Philippe Gradidge

Denmark

Advancing communication and visualisation of accelerometer-based 24/7 movement behaviour data: a multi-method study

AUTHORS

Paiva Marchiori, M.[1], Schipperijn, J.[1]

AFFILIATIONS

[1]*University of Southern Denmark*

Background: Despite advances in 24/7 movement behaviour research, global physical activity levels remain below WHO recommendations. The growing complexity of the data produced, and the inconsistent ways they are visualised and communicated, may cause confusion and limit meaningful use of findings to develop evidence-based physical activity guidelines. Purpose: To help movement behaviour researchers make better choices for visualising accelerometer-derived data and improve communication of research findings for research, policy, and practice. Methods: We first conducted a systematic review and synthesis of accelerometer-derived metrics and visualisations. We then used an online survey and interviews to examine how researchers perceive, understand, and prefer different visualisation formats. Lastly, we integrated these findings through researchers' focus groups to develop guiding principles and prototype a tool for generating consistent visualisations. Results: The review highlighted substantial heterogeneity in accelerometer-derived metrics, with limited consistency and guidance in how they are visualised. Interviews and survey responses revealed that simpler visualisations were better understood. Participants favoured consistent and usable formats and provided insights into best visualisation practices. These findings informed the development of a visualisation tool addressing identified gaps. Conclusions: By examining current practices and user perspectives, this study highlights the need to a systematic approach to visualisation and communication of accelerometer-derived 24/7 movement behaviour data. The resulting guiding principles and tool offer a structured foundation for improving clarity, comparability, impact, and accessibility of research findings. Implications for Policy and Practice: Clearer and more consistent visualisations can strengthen communication between researchers, policymakers, and end-users, potentially enabling more effective translation of research findings into action and supporting efforts to address persistent gaps in meeting physical activity guidelines.

Funding: As part of the Learning Network for Advanced Behavioural Data Analysis (LABDA) project, this study was funded by the European Union's Horizon Europe 535 research and innovation programme (grant agreement No 101072993).

Denmark

Comparing self-report and accelerometer-defined physical activity guideline adherence - preliminary ROC Analyses from two Danish surveys

AUTHORS

Bjørk Petersen, C.[1], Heidler, J.[2], Eghøj, M.[2], Breum Skov Christiansen, L.[2], Koch, S.[2], Schipperijn, J.[2], Bauman, A.[3]

AFFILIATIONS

[1]*Center for Clinical Research and Prevention*

[2]*Department of Sports Science and Clinical Biomechanics, University of Southern Denmark*

[3]*Sydney School of Public Health, Sydney University, Australia*

Background: Robust physical activity (PA) surveillance requires measures that can classify adults according to recommended PA levels. While global surveillance systems rely largely on brief self-report questions, device-based measures are increasingly prevalent and may capture different dimensions of PA behaviour. This study examines how single-item self-report PA indicators correspond to accelerometer-defined adherence to PA guidelines using data from two national Danish datasets. Methods: Adults with valid single-item self-reported PA data and thigh-worn accelerometer data were included from two national datasets: Danish National Health Survey (DNHS) (n = 981) and Moving Denmark (n = 881). We analysed [i] survey-based MVPA categories, [ii] the Saltin–Grimby Physical Activity Level (SGPAL) and [iii] Moving Denmark activity-domain quintiles. Estimates of meeting PA guidelines from accelerometer-defined thresholds (≥150 min/week MVPA) was carried out for three self-report measures. Classification performance was assessed using ROC curves and areas under the curve (AUC). Preliminary results: Across both datasets, single-item self-report measures showed moderate ability to classify adults as meeting accelerometer-defined adherence to PA guidelines, with AUCs of 0.61–0.69. The survey MVPA item (AUC = 0.69) and the Saltin categories (AUC = 0.67) performed best, with other indicators showing slightly lower discrimination. Results were consistent across the two national samples. Overall, single-item questions captured meaningful variation in PA in surveillance systems, but only partially align with accelerometer-defined guideline adherence. Conclusions: Self-report and accelerometer-defined adherence to PA guidelines classified differently as they capture distinct aspects of PA behaviour. Interpretation of adherence therefore depends on the method used. Understanding these differences is essential for interpreting trends and ensuring continuity across countries. With the increased adoption of accelerometer-based surveillance, guideline linked thresholds, including the number of minutes or days required to “meet” guidelines, may also need reconsideration.

United Kingdom

Inequalities in device-measured physical activity among people with physical and mental multimorbidity in Malawi

AUTHORS

Warner, B.[1], Nkoka, O.[1], Mwandira, K.[2], Mwakabanga, M.[3], Munthali, S.[4], Price, A.[5], Gray, S.[1], Crampin, A.[6]

AFFILIATIONS

[1]*University of Glasgow*

[2]*Malawi Epidemiology and Intervention Research Unit (MEIRU)*

[3]*Malawi Epidemiology and Intervention Research Unit*

[4]*University of Exeter, Malawi Epidemiology and Intervention Research Unit*

[5]*London School of Hygiene and Tropical Medicine, Malawi Epidemiology and Intervention Research Unit*

[6]*University of Glasgow, Malawi Epidemiology and Intervention Research Unit, London School of Hygiene and Tropical Medicine*

Background: Multimorbidity, the coexistence of ≥2 long-term conditions (LTCs), is a global challenge. Physical activity (PA) is associated with multimorbidity, but associations may differ by sex and LTC combinations. Device-measured evidence from low-income settings remains limited. Purpose: To characterise device-measured PA in urban and rural Malawi, quantify associations with multimorbidity, and assess differences by type and sex. Methods: A random age- and sex-stratified sample of 3,693 individuals aged ≥15 years from an urban-rural Long-Term Conditions survey were invited to wear an Axivity AX3 accelerometer for seven days. Data were processed using GGIR, with inverse probability weighting to account for sampling. Twelve physical and three mental LTCs were assessed; multimorbidity was categorised as physical or physical-mental. Linear regression of LTC count on PA was performed, adjusting for age, sex, setting, and education, with assessment of effect modification by sex. Results: Of 2,917 participants with valid data (mean age 39.3; 56.3% female; 26.9% urban), 548 (18.8%) had multimorbidity. Adjusted mean total daily acceleration was 45.3mg (95% CI 44.4–46.2) in those without multimorbidity, 41.2mg (39.3–43.1) in those with physical multimorbidity, and 42.7mg (39.1–46.4) in those with physical-mental multimorbidity. Associations between LTC count and total acceleration differed by sex (p = 0.011). Among males, each additional LTC was associated with a -2.41mg (-3.34 to -1.47) lower acceleration, compared to -0.77mg (-1.79 to 0.25) among females. Intensity gradient also showed sex-specific associations (p = 0.02), with steeper declines per additional LTC in males. Conclusions: Multimorbidity was associated with lower PA, with stronger associations among males. PA levels were similarly reduced in physical and physical-mental multimorbidity, suggesting overall burden may matter more than type. Implications for Policy and Practice: PA interventions should prioritise individuals with greater LTC burden, and consider differential impacts by sex.

Funding: Study supported by Wellcome Award: 223499/Z/21/Z.

United States

Multi-Method Analysis of Physical Activity and Sleep Duration in Young to Older Adults

AUTHORS

Corral, C.[1], Aguinaga, S.[1], Arpin, D.[2], Huibregtse, M.[1], Webb, A.[1], Damon, B.[2]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*
[2]*Stephens Family Clinical Research Center*

Background: Data processed with “cut-points” to classify minutes spent in a behavior are sensitive to a compositional effect, introducing statistical confounding when both outcome and exposure are part of the 24-hour composition. Purpose: To compare cut-point (minutes/day) metrics with cut-point agnostic metrics for identifying differences in sleep duration. Methods: Participants (n = 85 [40 female, 45 male], mean age = 39.7) ages 18 – 81 wore a wrist-mounted accelerometer for 7 24-hour periods. To measure intensity, the log-transformed slope of acceleration was used. This models the re-allocation of wake-time movement to higher intensities. Volume was calculated as the average acceleration. Wake-time reallocations of time spent in moderate-to-vigorous activity (MVPA) from light activity and sedentary behavior were modelled for comparison. Mixed effects models were adjusted for wear time, age, sex, and body mass index. Results: Intensity was associated with greater sleep duration ($\beta = .12$, $p = .01$) when adjusting for volume, although volume was not significant ($\beta = -.03$, $p = .51$). MVPA min/day showed a negative association with sleep duration ($\beta = -.10$, $p = .02$), whereas the reallocation of other wake-time behaviors to MVPA was positive but non-significant ($\beta = .03$, $p = .48$). Conclusions: At the same volume, increasing intensity of activity is associated with greater sleep duration. Approaches using minutes per day showed less sensitivity or time-based confounding. Future studies should confirm the sleep benefits of increases in intensity, rather than increasing general movement at any intensity. Implications for Policy and Practice: Cut-point agnostic metrics that separate time in activity into physiologically relevant descriptors (e.g. intensity and volume) may be better suited when the outcome variable is also part of the 24-hour composition.

Funding: Stephens Family Clinical Research Institute, Carle Health; Interdisciplinary Health Sciences Institute, Beckman Institute for Advanced Science and Technology, University of Illinois Urbana-Champaign.

Canada

A Critique of Sample Diversity in Device Based Physical Behaviour Research and Future Recommendations

AUTHORS

Baumgart, J.K.[1], Coyle-Asbil, H.[2], Vallis, L.A.[3], Milton, K.[4], Atkin, A.[4]

AFFILIATIONS

[1]*University of British Columbia/ Norwegian University of Science and Technology*
[2]*University of Western Ontario, Canada*
[3]*University of Guelph, Canada*
[4]*University of East Anglia, UK*

Background Physical behaviors (PB)—including physical activity, sedentary behavior, and sleep—are key determinants of physical and mental health. Wearable devices are increasingly used to study PB, but the initial development and validation research informing the more applied work has largely been conducted in samples that lack diversity. To build a globally relevant evidence base, this research must better represent the context in which PB occurs and include more diverse samples. Purpose To examine representation gaps in device-based PB research and provide actionable recommendations for advancing equality, diversity and inclusion. Methods We conducted a descriptive review of 157 papers published in the Journal for the Measurement of Physical Behaviour (2018–2024), the leading journal on fundamental PB measurement problems. We extracted study locations and participant characteristics (sex, age, health status, race, socioeconomic status) and integrated these data with methodological literature on device-based PB algorithm development and validation. Results Device-based PB measurement research has mainly been conducted in high income countries (HICs; 97.6%), with limited research in upper middle income (1.8%) and lower middle income countries (0.6%). Adults comprised 77% of samples; people with a chronic disease (6%) or disability (2%) were rarely included. Reporting of race (32%) and socioeconomic status (13%) was limited. Importantly, PB algorithms are commonly developed using data from healthy, younger adults. Studies have found reduced accuracy for older individuals and those with atypical movement patterns. Conclusions Addressing diversity gaps in fundamental PB measurement work is essential for device based PB research that is capable of informing equitable, context relevant health recommendations. Implications for Policy and Practice Several key actions are needed for broader impact of device-based PB research:1) embed participatory designs to ensure protocols function in diverse contexts and participants; 2) prioritize algorithm development/validation across diverse populations and movement abilities; 3) establish minimum demographic and contextual metadata reporting standards.

United States

Achievement of moderate-to-vigorous cadence-intensity thresholds using real-time visual feedback from a wearable device

AUTHORS

Aguiar, E.[1], Lucas, K.[1], Crombie, K.[1], Man, K.[1], MacDonald, H.[1]

AFFILIATIONS

[1]*The University of Alabama*

Background: Prior studies have established a strong relationship between walking cadence and intensity during treadmill and self-paced overground walking. Specifically, ≥100 and ≥130 steps/min correspond to moderate (~3 metabolic equivalents; METs) and vigorous (~6 METs) intensities, respectively. Few studies have examined pragmatic approaches for implementing these defined cadence-intensity thresholds to modulate walking intensity. Purpose: To examine achievement of cadence-intensity thresholds using real-time visual feedback from a wearable device. Methods: Participants (N=21, 27.7±6.8 years) completed two bouts of overground walking (45-m oval track) in a randomized crossover design: moderate (MOD; 100 steps/min) and vigorous (VIG; 130 steps/min). Participants were instructed to self-regulate their cadence to the prescribed cadence-intensity thresholds using real-time visual feedback from a wearable device (Garmin Venu SQ2). An instrumented gait mat provided a criterion measure of cadence. Equivalence testing (confidence interval [CI] method) was used to determine group-level achievement of the prescribed cadence-intensity thresholds; equivalence was concluded if the mean error and 90% CIs fell within an equivalence zone of ±5 steps/min. Results: Mean (±SD) cadence was 101.5±2.7 and 124.8±5.0 steps/min for the MOD and VIG conditions, respectively. 90% of participants achieved MOD, whereas only 52% achieved VIG. For MOD, mean error [90% CI] fell within the equivalence zone (1.5 [0.5, 2.5] steps/min); whereas VIG (-5.2 [-7.1, -3.3] steps/min) crossed the equivalence zone. Conclusions: Using real-time feedback from a wearable device, participants were mostly able to achieve MOD, with group-level performance deemed equivalent to the prescribed cadence-intensity thresholds. In contrast, only half of participants successfully achieved VIG, with group-level performance deemed not equivalent. Practical implications: While wearable devices show promise for the modulation of cadence and intensity during walking, our findings suggest some caution when prescribing vigorous intensity walking at 130 steps/min. Future studies should examine the factors that influence achievement of these cadence-intensity thresholds.

SHORT ORALS

8 Oct | Healthcare-based physical activity interventions

Session Chair: Susie Aguinaga

Mexico

Exercise Prescription Characteristics Targeting Chronic Inflammation in People Living with HIV: A Scoping Review

AUTHORS

García Basto, L.D.[1]

AFFILIATIONS

[1]*Escuela Nacional del Deporte*

Background People living with HIV (PLWH) experience persistent low-grade inflammation despite viral suppression, contributing to non-AIDS comorbidities and health inequities. Physical activity is a promising non-pharmacological strategy to modulate inflammation; however, heterogeneity in exercise prescription and reporting limits translation into clinical and public health practice. Purpose To map and describe exercise prescription characteristics (FITT-VP) used in physical activity interventions targeting chronic inflammation in adults living with HIV. Methods This scoping review follows Joanna Briggs Institute (JBI) methodology and PRISMA-ScR guidelines. A three-step search strategy was conducted: (1) an initial limited search in MEDLINE (PubMed) and CINAHL to identify keywords and index terms; (2) development and adaptation of a comprehensive search strategy across databases; and (3) screening reference lists of included sources. No language, geographical, or date restrictions were applied. Records were managed in Rayyan, with duplicates removed. A pilot screening ensured consistent application of inclusion criteria. Two independent reviewers screened titles/abstracts and full texts, resolving disagreements by discussion or third-reviewer consultation. Data were extracted independently using a pilot-tested JBI-based tool, capturing participant characteristics, context, intervention details, FITT-VP parameters, monitoring methods, adverse events, and inflammatory biomarkers. Data synthesis included descriptive, thematic, and comparative analyses. Results Preliminary searches identified 118 records. The review will map patterns of FITT-VP parameters across interventions targeting chronic inflammation in PLWH. A FITT-VP reporting completeness diagram will identify systematically underreported parameters. Descriptive comparative analyses will explore variations by age, sex, and intervention type. Inflammatory biomarkers and measurement approaches will be synthesized to characterize outcome heterogeneity. Preliminary screening suggests substantial variability and incomplete reporting, particularly for intensity and progression. Conclusions Exercise prescription in interventions targeting chronic inflammation in PLWH shows heterogeneous and incomplete FITT-VP reporting, limiting reproducibility and implementation. Implications for Policy and Practice Synthesizing exercise prescription supports equitable translation of evidence into context-specific activity recommendations for PLWH.

United Kingdom

Evaluation of a national programme delivering symptom-focused exercise rehabilitation to adults with long term conditions

AUTHORS

Marshall, Z.[1], Parmley, J.[2], France-Ratcliffe, M.[2], Price, B.[2], Michael, P.[3], Heaton, S.[2], Innes, A.Q.[4], Deniszczyc, D.[4], Harwood, A.[2], Yeowell, G.[5], Fatoye, F.[5], Doherty, P.[6], Cable, N.T.[2]

AFFILIATIONS

[1]*Manchester Metropolitan University*

[2]*Manchester Metropolitan Institute of Sport, Manchester Metropolitan University, Manchester, UK*

[3]*Faculty of Health and Education, Manchester Metropolitan University, Manchester, UK/ Nuffield Health, Epsom, Surrey, United Kingdom*

[4]*Nuffield Health, Epsom, Surrey, United Kingdom*

[5]*Department of Health Professions, Manchester Metropolitan University, Manchester, UK*

[6]*Department of Health Sciences, University of York, York, UK*

Background Community-based exercise rehabilitation improves function and quality of life (QoL) across long-term conditions (LTCs). However, most services are condition specific and poorly suited to people whose symptoms span multiple LTCs. Consequently, a symptom-focused exercise rehabilitation programme was developed to offer adaptable support and improve health outcomes. Purpose Evaluation of baseline data from a national pilot LTC exercise rehabilitation programme. Methods A 24-week programme delivered across eleven community health and fitness centres comprised 12-week supervised exercise twice weekly group exercise and 12 weeks supported gym access. Sessions led by exercise professionals, integrating exercise, health coaching and education content. Clinically referred participants received health assessments including medical history, physical characteristics, grip strength and sit to stand. Reported measures included EQ5D, Godin Leisure Time Physical Activity, and symptom specific questionnaires (MSK-HQ, FACIT-Fatigue, and Dysnopea-12), collected at baseline via online questionnaire. Descriptives and baseline difference testing were applied by gender within symptom grouping. Follow up data collection for weeks 12 and 24 is ongoing. Results Of 336 baseline assessments, 218 participants completed all measures (55.6 ± 15.2 years; 67.9% female; 69.7% White; 35.3% employed). Most prevalent symptoms were chronic pain (57.5%), chronic fatigue (11.9%) and breathlessness (9.6%). Men reported more moderate to vigorous leisure time activity than women (136 vs 74 minutes; $p<0.05$). Within symptom groups, women had less favourable baseline breathlessness (6.7 vs 5.55; $p<0.01$), fatigue (23.0 vs 29.2; $p=0.01$) and (0.56 vs 0.66; $p<0.05$). No gender differences were observed for musculoskeletal health. Conclusions A symptom-focused exercise rehabilitation model can engage a diverse population with LTCs and reveals clinically relevant baseline differences in symptom burden and activity. Implications for policy and practice Findings support adaptable rehabilitation pathways beyond condition-specific models, alongside potential to strengthen community delivery and workforce capability. Funding Jointly funded by Manchester Metropolitan University and Nuffield Health UK.

United Kingdom

Acceptability of a Pilot Transdiagnostic Exercise Programme for Long-Term Conditions.

AUTHORS

Michael, P.[1], Alexanders, J.[1], Yeowell, G.[2], Price, B.[2], Parmley, J.[2], Marshall, Z.[2], Quinn Innes, A.[1], Elizabeth Harwood, A.[2], Fatoye, F.[2], Doherty, P.[3], Timothy Cable, N.[2], Deniszczyc, D.[1], France-Ratcliffe, M.[2]

AFFILIATIONS

[1]*Nuffield Health*
[2]*Manchester Metropolitan University*
[3]*University of York*

Background Physical activity offers established benefits for individuals living with long-term conditions, yet rehabilitation pathways remain condition specific despite evidence that the exercise modality underpinning interventions is similar across conditions. Transdiagnostic models (spanning multiple conditions) may therefore offer a scalable and efficient alternative, but little is known about their acceptability. Purpose This study explored the acceptability of a pilot transdiagnostic exercise rehabilitation programme delivered within a Fitness and Wellbeing Centre in the UK, drawing on the Theoretical Framework of Acceptability. Methods Semi-structured interviews were conducted with programme participants, rehabilitation specialists (exercise professionals), triage physiotherapists, and healthcare professional referrers. Twenty-one research participants were interviewed. Interviews lasted approximately 60 minutes, were held online using Microsoft Teams, transcribed verbatim, and inductively analysed using process and descriptive coding in NVivo 15. Triangulation, team deliberation, and respondent validation enhanced the trustworthiness of the analysis. Results Three themes were identified: 1) 'Seeking support and adopting exercise as a tool for rehabilitation', highlighting how illness beliefs shaped readiness to engage; 2) 'Optimising healthcare pathways', illustrating the value of community-based delivery and the need for clearer dissemination and integration of referral routes; and 3) 'Implementing a transdiagnostic programme effectively', emphasising the importance of workforce training, alongside mixed views on heterogeneous group composition in a transdiagnostic programme. Conclusion A transdiagnostic exercise rehabilitation programme for long-term conditions is largely acceptable across stakeholder groups. Findings highlight the need for stronger pathway integration, a symptom-led rather than condition-led approach, and supplementary training to equip exercise professionals to scale out delivery to other patient populations. Implications for Policy and Practice Community-based transdiagnostic rehabilitation offers a practical model for extending access to long-term support at scale. Future research should examine mechanisms that influence uptake and optimise group dynamics to promote adherence. Funding Jointly funded by Manchester Metropolitan University and Nuffield Health UK.

Canada

Continuous Participation in a CEP-Led Exercise Program Improves and Maintains Physical Function in Older Adults

AUTHORS

Leadbetter, B.[1], Kendall, K.D.[2], Shields, C.[2], Fowles, J.R.[2]

AFFILIATIONS

[1]*University of New Brunswick*
[2]*Acadia University*

Introduction: Age-related declines in physical function increase fall risk, chronic disease, and loss of independence in older adults. While short-term exercise interventions can mitigate this decline, there is limited evidence on the long-term impact of community-based exercise programming. Purpose: To evaluate the effects of continuous participation in a community-based exercise program led by a Clinical Exercise Physiologist (CEP) on physical function in older adults. Methods: Action research was used to evaluate the effects of the "Active for Life" program, a CEP-led, multi-modal exercise program for adults aged 50+. Each 11-week program has two 60-minute group classes per week. Data from participants (n=431; mean age 70.6±6.8 years; 76.3% female) who consented to having their data evaluated for one (T1) to three (T3) consecutive programs was evaluated. Physical function outcomes (30-second chair stand (30SCS), 2-minute step test (2MST), single leg stance (SLS)) were assessed at baseline and following each consecutive program, with self-reported moderate-to-vigorous physical activity (MVPA) and resistance training (RT) as secondary outcomes. Repeated-measures MANOVAs and univariate tests were used to assess changes over time. Results: Participants significantly improved their 30SCS by 15.2% (16.5±5.2 vs. 19.0±5.6; p=.001) and 2MST by 12.3% (110.9±29.6 vs. 124.5±28.8; p=.001) at T1, with improvements maintained at T3. 30SCS improved an additional 8% to 20.3±5.7 by T3 (p=0.008). SLS scores did not improve significantly over time. MVPA and RT significantly increased at T1 by 53% and 108%, respectively, and were maintained over time. Conclusions: The Active for Life program produced improvements in 30SCS and 2MST after one program; 2MST gains were maintained and 30SCS continued to improve with continuous participation. Implications for Policy and Practice: These results suggest that there are benefits to continuous participation in exercise programs for aging adults. Therefore, community programs should consider allowing participants to register for consecutive programs and encourage continuous participation.

Australia

Physiotherapy-led group exercise with behaviour change to improve physical activity in Parkinson's disease: a RCT

AUTHORS

Brauer, S.[1], Lamont, R.[2], O'Sullivan, J.[3]

AFFILIATIONS

[1]*The University of Queensland*

[2]*School of Health & Rehabilitation Sciences, The University of Queensland*

[3]*School of Medicine, The University of Queensland; Department of Neurology, Royal Brisbane & Women's Hospital*

Background: Exercise-based interventions can increase physical activity in the short term in people with Parkinson's disease (PD), however sustaining improvements is challenging. Approaches that address both the capacity to engage in physical activity and self-management strategies to change and maintain exercise behaviours are required. Purpose: To determine if a program of personalized high-intensity group exercise incorporated with a self-management approach to behaviour change results in a greater and more sustained improvement in physical activity and secondary outcomes than usual care in people with mild-moderate PD. Methods: A parallel-group, randomised trial with blinded assessors involving 92 people with PD was performed in Australia. A physiotherapy-led high intensity group exercise program combined with a self-management approach to change activity behaviours was delivered to the experimental group across twelve, 80-minute sessions. The control group received usual care. Outcomes were measured at baseline (Wk0), post intervention (Wk5) and at follow-up (Wk26). The primary outcome was physical activity (steps/day) measured with an activity monitor. Secondary outcomes included patterns of physical activity including time in higher intensity bouts. Results: The experimental group took significantly more steps after intervention (Wk5-0) than the control group (mean diff 2246 steps, 95%CI 739 to 3752), but this was not sustained at follow up (mean diff 747 steps, 95%CI -844 to 2339). The experimental group spent a longer time in bouts of higher intensity activity at Wk5 than the control group (7.4min 95%CI 1.1 to 13.8), which was sustained at follow up (9.2min 95%CI 2.58 to 16.0). Conclusions: Focussing an intervention on self-management of high intensity physical activity was able to sustain gains in physical activity in PD. Implications for Policy and Practice: Physiotherapy-led group-based programs in the community should integrate high-intensity exercise and behaviour change strategies to modify physical activity behaviours in people with PD. Funding: Wesley Medical Research, Australia.

Sweden

Implementing Physical Activity on Prescription in Primary Care: A Scalable Support and Evaluation Model

AUTHORS

Dohrn, I.M.[1], Hagströmer, M.[1]

AFFILIATIONS

[1]*Karolinska Institutet*

Background Physical Activity on Prescription (FaR) is an evidence-based method recommended in Swedish national guidelines to support patients in increasing their physical activity. However, its use in primary care remains low. To address this gap, a comprehensive implementation support model was developed to promote systematic and sustainable use of FaR at the unit level. Program Delivery The implementation model combines multiple evidence-based strategies in a practical, real-world context, including a web-based introductory course, development of local FaR routines, on-site or digital training and supervision, and structured follow-up. Participating units receive financial compensation after completing the implementation. To date, 72 primary care units in Stockholm County have been recruited, of which 53 (74%) have agreed to participate in the scientific evaluation. Evaluation and Impact Registered FaR prescriptions are compared before implementation and at three and six months post-intervention. Experiences of managers and healthcare professionals are assessed through interviews and questionnaires. Preliminary data show that 75% of participating units increased FaR prescriptions three months after the initial implementation. Focus group interviews with 16 managers and 101 questionnaire responses indicate increased FaR use and high acceptability among staff. Key enablers included clear FaR routines, a local coordinator, method training, and standardized EHR templates. Additional enablers were knowledge of physical activity health effects, motivational interviewing, and awareness of local activity providers. Many participants reported that FaR is easy to apply and integrates well into routine care. Conclusions This study evaluates one of the first structured, large-scale implementation efforts of FaR in Swedish primary care. The model integrates multiple proven strategies, targets organisational rather than individual change, and is feasible, well-accepted, and associated with increased FaR use. Practical Implications This model could enable scalable, equitable FaR implementation in primary care, bridging research and practice to improve population-level physical activity and health outcomes.

Canada

Operationalizing Behaviour Change Theory in Brief Physical Activity Counselling: A COM-B and BCT–Informed 5As Framework

AUTHORS

Cadri, A.[1], Barnett, T.[2], Bélanger-Gravel, A.[3], team, G.[4]

AFFILIATIONS

[1]*McGill University*

[2]*Department of Family medicine, Faculty of Medicine, McGill University*

[3]*Department of Information and Communication, Université Laval*

[4]*GACD*

Background: Promoting Engagement in Physical activity (PEP) is a primary care-based counselling intervention designed to increase physical activity (PA) levels in inactive patients who are at risk of DM2 and other NCDs. Purpose: This study describes the systematic development and operationalization of PEP into a structured 5As framework (Ask, Assess, Advise, Agree, Assist), to ensure that each counselling step is supported by evidence-informed behavioural mechanisms and corresponding behaviour change techniques (BCTs). Methods: We first synthesized determinants of PA using the COM-B model and Theoretical Domains Framework (TDF). The Theory and Techniques Tool (TTT) and the BCT Taxonomy v1 were then applied to match relevant BCTs to each domain. The APEASE criteria were used to refine these selections, resulting in a set of recommended BCTs. These BCTs were subsequently mapped onto the 5As structure to guide clinicians in delivering a PA counselling, following the principles of motivational communication, within a naturally flowing conversation. Results: We identified several COM-B/TDF domains as targets: knowledge, skill and behavioural regulation domains (Capability component); beliefs about capabilities, emotion, social role and identity, reinforcement, beliefs about consequences, intention, and goals (Motivation component); and environmental context and resources and social influences (Opportunity component). After APEASE filtering, 25 effective BCTs were retained (including overlaps). These mapped with Advise (3 BCTs to be delivered, including instruction on health consequences); Agree (3 BCTs, including goal setting); Assist (5 BCTs, including social support; referral and feedback on behaviour). Conclusion: The development of PEP describes a clear, systematic approach to integrating behavioural theory into practical counselling, and a framework and modality familiar to clinicians. Next steps include further engagement with clinicians, patients and community partners on PEP's implementation and piloting in diverse clinic settings.



SHORT ORALS

8 Oct | New Approaches to Supporting Active Living across the Life Course

Session Chair: Cesar Hernandez

Associations of caregiver smartphone use and technoference with movement behaviours in early childhood

AUTHORS

Engberg, E.[1], Hietajärvi, L.[2], Uusitalo, K.[3], Wackström, N.[1], Roos, E.[1]

AFFILIATIONS

[1]*Folkhälsan Research Center*
[2]*University of Helsinki, Helsinki, Finland*
[3]*Folkhälsan Research Center, Helsinki, Finland*

Background: Evidence on associations between caregiver smartphone use and child movement behaviours remains limited. Purpose: We examined gender-specific associations of caregiver smartphone use and smartphone use during caregiver-child interactions (technoference) with physical activity (PA), sedentary time (SED), sleep, and screen use in early childhood. Methods: Cross-sectional data (2022–2023) included 1,081 children aged 3–4 years (46% girls) and 1,485 caregivers (65% women). Caregivers reported 7-day smartphone use from screen time statistics on their smartphones. A questionnaire assessed technoference during meals, play, travel, walks, and bedtime routines with the child, and children's gaming, video watching, and total screen use. We calculated weighted means for weekly screen use and dichotomised technoference as frequent (most days/daily) versus less frequent. Child PA intensities, SED, and sleep were measured with 7-day accelerometry. We used linear mixed models with a family-level random intercept adjusted for caregiver and child age and gender, and tested interactions between caregiver gender and smartphone use. Results: Higher smartphone use among male caregivers was associated with lower child light PA (β=-0.13, 95% CI -0.23; -0.04) and total PA (β=-0.14, -0.25; -0.03) and higher child SED (β=0.15, 0.03; 0.27), whereas higher use among female caregivers was associated with lower SED (β=-0.10, -0.18; -0.01). Frequent technoference during all interactions except play was associated with higher child total screen use (all $p \leq 0.016$) and during travel and walks also with more video watching (both $p \leq 0.043$). Caregiver smartphone use was not associated with child screen use or sleep, and technoference was not associated with gaming, PA, or sleep. Conclusions: Associations between caregiver smartphone use and child movement behaviours differed by caregiver gender and were distinct from technoference. Implications for policy and practice: Supporting caregivers to reduce smartphone use, overall and during child interactions, may promote PA and limit screen use in early childhood. Funding: Research Council of Finland

Canada

Youth-led, Community-supported: A ‘nothing about us without us’ approach to active living

AUTHORS

Fox, G.[1], Dumo, J.[2], Tandy, S.[3], Pelletier, C.[4], Manyanga, T.[5]

AFFILIATIONS

[1]*Northern Health*

[2]*Department of Psychology, Simon Fraser University*

[3]*Departments of Psychology & Health Sciences, University of Northern British Columbia*

[4]*School of Health Sciences, University of Northern British Columbia*

[5]*Division of Medical Sciences, University of Northern British of Columbia*

Background: Despite its known detriments, insufficient physical activity (PA) is prevalent among Canadian youth, especially those living in northern, rural, and remote communities. Purpose: This project centered youth voices to identify systemic and individual barriers and enablers to PA in northern, rural, and remote British Columbia (BC). Community strengths were leveraged to co-develop a suite of youth-led recommendations designed to promote environments that support and encourage active lifestyles. Methods: Data were collected via online survey and three regional workshops in three northern BC communities. Eighty valid online survey responses were collected. In-person workshops drew a combined 55 participants, including youth (ages 12–24), educators, and community representatives. Findings were categorized using a Social-Ecological Model to understand influences across individual, interpersonal, organizational, community, and policy levels. Results: Across the north, high costs and lack of transportation emerged as persistent systemic barriers to youth PA. Tight-knit, supportive communities, and proximity to nature were identified as enablers. The competitive culture of youth sports often excludes those who do not fit into high-performance models. Placing relatable youth in positions of leadership was identified as a key solution to increase engagement; intersecting logistical and cultural challenges could be overcome by shifting toward inclusive, fun-focused, and Indigenous-informed wellness frameworks. Conclusions: Findings across northern BC point to the need to address systemic logistical barriers while shifting the cultural focus from high-performance competition to holistic, social-connection-based activity. Implications for Policy and Practice: To address the “teen decline” in PA participation, policy and practice must shift toward universal design and long-term subsidies that ensure free or low-cost access for all. Organizations should capitalize on existing community spaces and enhance coordination and communication to leverage logistical resources such as carpooling and snack programs to mitigate immediate barriers like transportation and food insecurity.

Funding: Michael Smith Health Research BC C2 grant.

Canada

Moving Towards Inclusive and Equitable Physical Activity: An Evaluation of a Peer-Based Post-Secondary Mentorship Program

AUTHORS

Sunderji, S.[1], deJonge, M.L.[1], Sabiston, C.M.[1]

AFFILIATIONS

[1]*University of Toronto*

Background: Widespread mental health (MH) challenges among post-secondary students position physical activity (PA) as an effective, yet underutilized, support strategy. Guided by the ORBIT model, we have conducted a multiphase research project to provide evidence on scalable strategies for promoting MH through campus-based programming. While randomized controlled trial (RCT) evidence demonstrated that both one-to-one and group-based PA improved MH outcomes with moderate-to-strong effect sizes, critical questions remain regarding how other group-based programs can be designed and delivered in socially inclusive and accessible ways, particularly for equity-owed students. Purpose: Drawing on post-secondary cross-campus partnerships, this study translated RCT evidence into practice by evaluating a peer-based PA program (Move Mentors) and exploring participant perspectives on the supports and conditions needed to deliver inclusive, group-based PA programming that supports student MH and social inclusion. Methods: Focus groups were conducted with 14 program participants (82.7% women, Mage[SD]=21.69[2.87]years) representing diverse ethno-racial backgrounds (e.g., 21.4% Black, 21.4% Chinese). Data were transcribed verbatim and analyzed using thematic analysis. Results: Four themes were identified: (1) PA for MH support and social connection; (2) Beginner-friendly, peer-supported entry points; (3) Accessibility and participation constraints; and (4) Conditions for inclusive group-based delivery. The themes highlight socially supportive and accessible delivery conditions that foster belonging and sustained engagement, which are central to enhancing MH and equitable participation in campus PA spaces. Conclusions: These findings provide practical strategies and guidance for tailoring PA program delivery to enhance MH and social inclusion, particularly among students who have been historically underserved and underrepresented in campus PA settings. Implications: Integrated within our broader research program, this work underscores the critical role of campus ecosystems in shaping inclusive and equitable PA delivery. Institutional partnerships, peer mentorship structures, and inclusive instructional practices are essential for creating sustainable campus environments that support student MH and social inclusion through PA.

United States

Objectively Measured Physical Activity and Sleep Changes and Their Impact on Mental Health following a

AUTHORS

Bai, Y.[1], Fu, L.[1], Song, D.[1], Zhuo, Q.[1], Burns, R.[1], Brusseau, T.[1], Lucero, J.[1]

AFFILIATIONS

[1]*University of Utah*

Background: Underserved college students experience high levels of stress and less healthy behaviors. Purpose: This study examined changes in objectively measured physical activity (PA) and sleep following a brief wellness intervention and whether these changes were associated with mental and general health over follow-up. Methods: A single-arm, repeated-measures design was conducted. Participants completed baseline assessments and follow-up surveys at weeks 2 and 6. Participants wore a Fitbit for 8 weeks. The intervention consisted of a 45-minute motivational interviewing–based health coaching and a 15-minute goal-setting session. Linear mixed-effects models tested associations of within- and between-person PA and sleep metrics with mental and general health from baseline to week 6, adjusting for demographics and wear time. Results: Ninety-two participants completed the coaching session and 75 met valid Fitbit wear criteria. Participants with low baseline PA significantly increased activity and reduced sedentary time, while those with shorter baseline sleep duration significantly increased total sleep time. Across PA/sedentary mixed models, mental health (time effect $\beta = 4.32$ to 5.36, all $p<.001$) and general health improved over time (time effect $\beta = 1.72$ to 2.15, $p<.05$ to $p<.01$). Between-person PA were positively associated with mental health ($\beta = 0.15$, $p<.05$; adjusted model trend $\beta = 0.13$, $p<.10$), with similar findings for steps. In sleep models, significant within-person sleep × time interactions were found for mental health for awake ($\beta=0.25$, $p<.05$), light ($\beta=0.06$, $p<.05$), and deep sleep ($\beta=0.22$, $p<.01$). Conclusions: A brief motivational interviewing–based coaching and goal-setting session was associated with improvements in mental and general health, with baseline PA and sleep moderating intervention effects. Baseline PA and sleep moderated intervention effects. Implications for Policy and Practice: Brief, coach-delivered wellness sessions paired with wearable monitoring may offer a scalable strategy for improving movement behaviors and mental health in underserved college populations.

United States

Physical activity outcomes of a teaching kitchen multisite trial

AUTHORS

Heredia, N.[1], Lee, C.[2], Massa, J.[2], Janisch, K.[2], Hoelscher, D.[3], McClure, A.[4], Moin, T.[5], Malik, S.[6], Slusser, W.[5], Eisenberg, D.[2]

AFFILIATIONS

[1]*UTHealth Houston School of Public Health*

[2]*Harvard T.H. Chan School of Public Health Department of Nutrition*

[3]*UTHealth School of Public Health Michael and Susan Dell Center for Healthy Living*

[4]*Dartmouth College Geisel School of Medicine*

[5]*University of California Los Angeles David Geffen School of Medicine*

[6]*University of California-Irvine Department of Medicine*

Background: Teaching Kitchens serve as venues for nutrition education and the development of cooking skills, but could be leveraged for physical activity interventions. We aimed to assess physical activity outcomes of a multisite trial testing a 12-month multidisciplinary teaching kitchen intervention among adults with overweight/obesity. Methods: This multisite randomized controlled trial was conducted across four university-affiliated clinical sites between 2023-2025. Adults (age 21-70) with at least one metabolic abnormality and with overweight/obesity were randomized to either a Teaching Kitchen intervention or usual care. Intervention participants attended 16 weekly sessions with hands-on culinary and lifestyle education, followed by 8 monthly booster sessions. The curriculum emphasized nutrition education, culinary skills, mindfulness practices, and physical activity using behavior change strategies. Research visits were conducted at baseline, 4 months, and 12 months. We used the International Physical Activity Questionnaire (IPAQ) and conducted linear mixed-effects models. Results: We enrolled and randomized 171 adults (86 control, 85 intervention) with retention rates ≥ 80%. Mean attendance was 85.0% for core classes (1–16) and 80.5% for booster sessions (classes 17–24). Participants reported high satisfaction with the program (mean, 4.6/5). Moderate-to-Vigorous physical activity MET-minutes/week increased by 292 in the intervention and only 88 in the control group between baseline and 12 months, but there was no statistically significant difference between the groups (p=0.82). Walking MET-minutes/week increased by 135 in the intervention and decreased by 91 in the control between baseline and 12 months, but no significant between-group differences were observed (p = 0.16). Conclusions: The Teaching Kitchen intervention demonstrated strong feasibility, with high retention and participant satisfaction. Physical activity increased more in the intervention than in the control group, though not statistically significantly. Future research testing this intervention should explore additional adaptations to enhance the physical activity components.

Canada

Identifying Factors Related to Long-Term Engagement of Aging Volunteer Leaders in Fall Prevention Exercise Programs

AUTHORS

Ugwuegbulem, C.[1], Fuentes Diaz, M.F.[2], Bouchard, D.[3]

AFFILIATIONS

[1]*Univeristy of New Brunswick*
[2]*University of New Brunswick*
[3]*Univerisity of New Brunswick*

Background: Falls are the second leading cause of unintentional injury-related deaths, and with global aging, there is an increased risk of falls. In response to this growing burden, many interventions/programs were developed and tested. Challenging balance exercises have proven to be the single most effective strategy for reducing fall risk. As a result, community exercise programs have emerged to deliver these services, with many relying on volunteer leaders. However, volunteer turnover is high, threatening the stability of these essential services. Purpose: To identify factors influencing long-term engagement of aging volunteer leaders in fall prevention exercise programs Methods: A qualitative case study, guided by the Volunteer Process Model and embedded within Stake's interpretivist paradigm, is employed. Participants are volunteer leaders aged 50+ who have led fall prevention community exercise programs consistently in the past 2 years. Recruitment is conducted by program managers through purposive sampling. Data is collected using online and in-person semi-structured interviews. Data is being analyzed using Braun and Clark's six-stage thematic analysis approach. Results: The preliminary analysis is focused on identifying key themes aligned with the antecedents, experience, and consequences stages of the Volunteer Process Model. Early identified themes related to community service, the perceived physical and social benefits of the volunteer leader role, no-cost training support, and family and travel commitments influence sustained engagement. Data analysis is planned to be completed by mid-April 2026. Conclusions: This ongoing study seeks to generate an in-depth understanding of the factors influencing long-term engagement among aging volunteer leaders who deliver fall-prevention community exercise programs. Implications for Policy and Practice: Findings are expected to inform strategies to support sustained engagement and retention of aging volunteers in fall prevention exercise programs. These insights will help program managers and policymakers strengthen the sustainability of community-based fall prevention initiatives.

Mexico

Promoting Workplace Physical Activity in Mexico: Results of the “Evaluate-Educate-Activate-Transform” Model in 145,504 Employees

AUTHORS

Hawley, M.[1]

AFFILIATIONS

[1]*Queremos Mexicanos Activos*

Background: Physical inactivity and workplace sedentary behavior represent a severe public health challenge in Mexico, driving the prevalence of overweight, obesity, and non- communicable chronic diseases. In this context, the workplace constitutes a strategic setting to integrate physical activity into corporate decisions and foster sustainable lifestyle habits. Objective: To evaluate physical fitness components (cardiovascular fitness, strength, and flexibility) and body composition in corporate employees across Mexico using the comprehensive model developed by Queremos Mexicanos Activos (QMA). Methods: An intervention model based on four core pillars (Evaluate, Educate, Activate, and Transform) was implemented across 13 participating organizations (including KOF- FEMSA, Grupo Bimbo, and Grupo Coppel). A total sample of 145,504 employees was evaluated (78% men, 22% women; 67% aged 18–39 years). The protocol comprised individual physical fitness assessments, personalized feedback, active breaks, educational workshops, digital tracking tools, and the "Active and Healthy Organization" recognition seal.

MOVING TOGETHER SESSION SHORT ORALS

7 Oct | Moving Together Session - Highlighting Top Latin American Science

Session Chairs: Alejandra Jauregui and Deborah Salvo

Mexico

Association between 24-Hour Movement Behavior Composition and Motor and Executive Development among Mexican Preschoolers

AUTHORS

Pineda Hernández, A.[1], Corral, C.J.[2], Quezada Sanchez, A.D.[3], Argumedo García, G.[2], Olvera, A.G.[3], Aguilar, N.[3], Salvo, D.[2], Okely, A.D.[3], Jáuregui, A.[2]

AFFILIATIONS

[1]*Escuela de Salud Pública de México*
[2]*Si*
[3]*No*

Objective: To examine associations between the 24-hour movement behavior (24h-MB) compositions and motor and executive development among Mexican preschoolers using compositional data analysis (CoDA). Methods: A cross-sectional study was conducted among 136 children using secondary data from the Mexican pilot of the SUNRISE Study (International Study of Movement Behaviors in the Early Years). The 24h-MB were assessed using waist-worn accelerometers. Executive development was evaluated with the Early Years Toolbox, and motor development with the NIH Toolbox protocol. Associations with sociodemographic variables were analyzed using multivariate Dirichlet regression, and associations with motor and executive outcomes using compositional linear regression and compositional isotemporal substitution. Results: Sedentary behavior predominated over moderate-to-vigorous physical acitivity (MVPA). Girls exhibited higher sleep-to-MVPA and sedentary-to-MVPA ratios than boys. Higher socioeconomic status was associated with longer sleep duration at the expense of light physical activity, and with lower MVPA replaced by sedentary and sleep time. MVPA was positively associated with working memory and upper limb strength when substituting light physical activity or sedentary behavior, whereas reallocations away from MVPA showed inverse associations. Similar directional trends were observed when sleep replaced light activity. Conclusions: These findings highlight the importance of considering 24h-MB as a co-dependent system. CoDA provides an integrated framework to understand how daily time allocation relates to early motor-executive development, with observed sociodemographic differences reflecting broader contextual influences.

Mexico

Pandemic excess mortality and post-pandemic physical activity trajectories: Evidence from urban Mexico

AUTHORS

Ruiz García de la Cadena, C.G.[1]

AFFILIATIONS

[1]*El Colegio de México*

Background: Evidence on post-pandemic changes in physical activity (PA) in low- and middle-income countries (LMICs) remains scarce, limiting our understanding of possibly structural shifts beyond 2020. Purpose: To examine how pandemic intensity exposure is associated with post-pandemic changes in PA behaviors, settings, and motivations. Methods: We construct a city-year pseudo-panel of adults aged 18+ years using representative surveys from the 32 main Mexican cities between 2015 and 2024 (n=320). Pandemic intensity is measured using excess mortality during 2020–2021 at the municipality level, estimated with a Bayesian hierarchical BYM2 model and aggregated to the city level. We estimate linear models with city fixed effects, interacting exposure with a post-pandemic indicator (2022–2024) relative to the 2015–2019 baseline to capture aggregate changes in PA. We then use a continuous difference-in-differences specification to assess whether pandemic intensity differentially shaped PA gradients across cities. Falsification tests assess the plausibility of the strong parallel trends assumption. Results: We find no homogeneous post-pandemic effects on meeting the 150-minute guideline or on engaging in physical activity in public spaces, gyms, schools, workplaces, or for stress relief. We observe a reduction of -11.13 minutes in average weekly PA (95% CI: −21.61 to −0.67), alongside increases of +1.75 percentage points (pp.) in exercising at home (95% CI: 0.31 to 3.21) and +3.10 pp. in exercising for health-related reasons (95% CI: 0.60 to 5.74). No evidence is found that pandemic intensity differentially shaped physical activity gradients, and falsification tests support the identifying assumptions. Conclusions: Post-pandemic physical activity in urban Mexico shifted toward lower average weekly minutes, with largely homogeneous patterns across cities. Implications for Policy and Practice: Physical activity strategies should be implemented uniformly across cities, leveraging increased health-related motivation and accommodating preferences for home-based physical activity. More evidence on rural areas is needed.

Chile

Active and Healthy Lifestyle Habits in Chilean Schoolchildren

AUTHORS

Ibarra Mora, J.[1], Urra, K.[1]

AFFILIATIONS

[1]*Universidad Metropolitana de Ciencias de la Educación*

Educational establishments, which play a key role in health promotion, now need to develop proposals that incorporate components of territoriality, a gender perspective, autonomy, and other relevant factors, particularly in light of the implementation of the Public Education Law. Thus, the Local Public Education Services (SLEPs) that assumed responsibility in 2024 in the Ñuble Region and in 2025 in the Maule and Metropolitan Regions face recent management challenges and a lack of knowledge regarding their students' healthy habits and active lifestyles. This presents a problem in developing relevant, sustainable, and gender-sensitive promotion and intervention plans and strategies. The objective of this project is to characterize the variables associated with active and healthy lifestyle habits in school populations, incorporating a gender approach to identify inequalities, barriers, and opportunities, to promote more inclusive and equitable interventions. The study has a quantitative, non-experimental, cross-sectional, and correlational design. A two-stage cluster sampling method was used, stratified by region and educational level. Data collection will take place between March and May 2026, using a representative sample (with a 95% confidence level) of 3,000 students aged 8 to 18 from public schools in three regions of Chile. A questionnaire will be administered to assess variables such as physical activity, sleep, diet, screen time, perceived well-being, sedentary behavior, and barriers to physical activity. Body weight, height, and waist circumference will also be measured. The study aims to identify differential patterns in active and healthy lifestyle habits according to gender and region, highlighting gaps and associated factors that will guide the design of more relevant and equitable intervention strategies within the new Public Education System.

Mexico

Mexican guidelines on physical activity, sedentary behaviors and sleep

AUTHORS

Medina, C.[1], Jauregui, A.[1], González, C.[1], Blas, N.[1], Argumedo, G.[1], Hernández, C.[1], Martínez, M.[1]

AFFILIATIONS

[1]*National Institute of Public Health Mexico*

The Mexican Guidelines on Physical Activity, Sedentary Behaviors, and Sleep were developed through a rigorous, iterative, and participatory process led by a national research team and supported by international experts. Grounded in behavior change theories and aligned with the United Nations' 2030 Sustainable Development Goals, the process aimed to produce contextually relevant, evidence-based, and culturally appropriate recommendations for the Mexican population. Seven stages were implemented between 2020 and 2026: (1) planning and formation of a technical team; (2) situational analysis, including three literature reviews on global guidelines, barriers and facilitators of movement behaviors, and effective messaging strategies; (3) consultation with national and international experts; (4) a multi-method qualitative study involving focus groups, semi-structured interviews, and an online survey with key population groups (pregnant and postpartum women, children under five years, children and adolescents, older adults, and adults with disabilities); (5) drafting of the guidelines using a 24-hour behavior approach and development of key messages and icons; (6) additional expert consultations to refine recommendations; and (7) validation with the target population and key stakeholders through qualitative methods and pilot surveys. Continuous feedback loops across all stages ensured scientific rigor, cultural relevance, and acceptability. The final guidelines include recommendations for physical activity, sedentary behaviors, and sleep across the life course, covering pregnant and postpartum women; infants under one year of age; children aged 1–4 years; children and adolescents aged 5–18 years; adults and older adults; and children, adolescents, adults, and older adults with disabilities.

Mexico

Exploring the Feasibility of a 24-Hour Movement Behaviour Data Collection Protocol using Fitbits in Mexico

AUTHORS

Jauregui, E.[1], Harden, S.[2], López y Taylor, J.[3], Jáuregui, E.[3], Lévesque, L.[4]

AFFILIATIONS

[1]*University of Guadalajara*

[2]*Dept. Human Nutrition, Foods, and Exercise, Virginia Tech*

[3]*Institute of Applied Sciences to Physical Activity and Sport, Health Sciences University Center (CUCS), University of Guadalajara*

[4]*School of Kinesiology and Health Studies, Queen's University*

Background: Feasible and acceptable protocols to measure adolescents' health behaviours in low-resource settings are needed. Purpose: Apply the RE-AIM framework to assess Fitbits as a low-cost option to capture adolescents' 24-hour movement behaviours (physical activity, sleep, and sedentary time) in a low-resource school context in Mexico. Methods: We examined Reach (participant recruitment and representativeness), Effectiveness (participant attrition, adherence to wear-time criteria and student-reported acceptability), Adoption (school participation), and Implementation (time, cost, and contextual factors). Maintenance was not assessed. Adolescents were recruited from five public high schools in the Guadalajara Metropolitan Area. Participants were asked to wear a Fitbit Flex 2 continuously for 7 days. Feasibility indicators were assessed using Fitbit data, structured observation sheets, and field notes. Acceptability and sociodemographic data were collected via a post-monitoring online questionnaire. Descriptive analyses were conducted in SAS. Barriers and facilitators were derived inductively from field notes. Results: All invited schools participated (n=5). Of 279 students invited, 176 participated (63%). Participants were 58% girls, with a mean age of 15.7 years (SD=0.8), and were representative by gender but not grade; 62% (110/176) achieved sufficient wear time, with no differences by gender or socioeconomic status. Fitbit setup required an average of 13.8 minutes (SD=2.3) per participant. Barriers were predominantly technological, including weak Wi-Fi and difficulties connecting devices to smartphones. Most students (87%) rated the Fitbits as acceptable. Conclusions: The Fitbit Flex 2 appears to be an acceptable and feasible tool, particularly with respect to Reach and Adoption. Challenges related to Effectiveness and Implementation remain. Implications for Policy and Practice: Efforts to enhance wear-time adherence, reduce technological barriers, and streamline device setup may improve data quality and scalability. Low-cost consumer wearables show promise for movement behaviour surveillance in resource-constrained educational settings.

Funding: This research was partially supported by a Mitacs Globalink Research Award (#IT24539).

United States

Changes in physical activity and active living barriers following migration in emerging U.S. Latino communities

AUTHORS

O'Connor, A.[1], Jacob, R.[2], Andrade, C.[3], Edmond Taylor, K.[4], Howell, C.[4], Salvo, D.[5], De La Garza, L.[6]

AFFILIATIONS

[1]*University of North Carolina at Chapel Hill*

[2]*Prevention Research Center at Washington University in St. Louis*

[3]*Washington University School of Medicine in St. Louis*

[4]*Heersink School of Medicine, Department of Medicine, Division of General Internal Medicine and Population Science, University of Alabama at Birmingham*

[5]*People, Health and Place Lab, Department of Kinesiology and Health Education, College of Education, The University of Texas at Austin*

[6]*Washington University in St. Louis*

Background Change in environmental, cultural, and socioeconomic contexts following migration is likely to influence participation in physical activity, especially when the location of settlement is a non-traditional immigrant receiving setting. Purpose Assess pre- versus post-migration changes in physical activity among recent Latin American immigrants, and explore perceived barriers for active living, in emerging U.S. Latino communities. Methods Grounded in the necessity- versus choice-based framework, we conducted a mixed-methods study including a two-stage, clustered random survey among recent Latin American immigrants to Birmingham and St. Louis, measuring self-reported neighborhood characteristics (using an adapted version of the Abbreviated Neighborhood Environment Walkability Scale) and physical activity levels (through an adapted version of the Modifiable Activity Questionnaire) in respondents' emerging communities versus their Latin American places of origin. Interviews with local service providers and community advocates and focus groups with recent immigrants examined barriers for active living. Results In surveys, 158 recent Latin American immigrants (Birmingham: n=78; in St. Louis: n=80) reported significantly less average weekly physical activity across all domains in their U.S. settlement location than in their place of origin ($p<0.05$), with the largest declines in active transportation. Interview (n=9 in Birmingham; n=12 in St. Louis) and focus group participants (n=13 in Birmingham; n=12 in St. Louis) identified car dependence, limited transit, unfamiliar cultural and social norms related to work and exercise, and small numbers of Latinos in the area, as key barriers for low physical activity participation in the U.S. Conclusions Recent Latin American immigrants in emerging U.S. Latino communities report significant declines in physical activity following migration, and limited social and environmental supports for active living. Implications for policy and practice Policies and programs to support new immigrants in adopting and maintaining active lifestyles are critically needed in emerging immigrant communities. Funding NIH-NIDDK grants 5P30K020541, P30DK092950 and P30DK079626.

United States

Factors influencing midlife Hispanic women's physical activity maintenance: A grounded theory study

AUTHORS

Lorenzo, E.[1], Aguillon, L.[1], Lyons, E.[1], Wong, R.[2], Wood, L.[3]

AFFILIATIONS

[1]*University of Texas Medical Branch*
[2]*UT Health San Antonio*
[3]*UT Health Houston*

Background: Interventions increase moderate-to-vigorous physical activity (MVPA) among Hispanic women in the early post-intervention period; however, maintaining regular MVPA over the longer term remains challenging. Purpose: Determine midlife Hispanic women's motivations, facilitators, and barriers to maintaining MVPA over the longer-term. Methods: Semi-structured interviews were conducted and audio recorded with 17 midlife Hispanic women (mean = 48.2 years) living in Southeast Texas and most of Mexican origin (94.1%). Women were regularly physically active (n = 13) or unsuccessful at becoming and maintaining regular MVPA (n = 4). Recordings were transcribed and analyzed using grounded theory methodology. Results: Midlife Hispanic women's motivations for maintaining MVPA included preventing health problems, aging healthily, and experiencing health benefits. MVPA maintenance facilitators included pushing yourself, connecting with yourself, feeling support from family/friends, and exercising as a lifestyle. Hispanic women navigated four culturally-specific barriers across the MVPA trajectory, including not seeing themselves in physical activity (PA), tension between collectivist versus individualistic values, recognizing what counts as MVPA, and negotiating roles, demands, and obligations. Accessing safe PA resources and building endurance were facilitators throughout PA participation. Conclusions: Midlife Hispanic women's transition from MVPA initiation to maintenance is influenced by multiple internal and external factors, including culturally-specific obstacles. Findings suggested women had difficulty managing intergenerational conflict between prioritizing themselves and marianismo values prioritizing family at the expense of self. Interventions should be developed and tested targeting the identified motivators, facilitators, and barriers to promote MVPA maintenance among midlife Hispanic women. Implications for Policy and Practice: Policymakers should consider providing safe community PA resources and implementing media campaigns highlighting Hispanic women participating in multiple MVPA domains. Practitioners should encourage midlife Hispanic women to engage in MVPA to promote healthy aging, empowering them to view PA as self-care, to seek support from family/friends, and to integrate it into their schedules. Funding: NIH/NIA 5K23AG083231

Brazil

Exploring a Combined Vulnerability Socioenvironmental Stratifier for Leisure-Time Physical Activity Inequalities

AUTHORS

Wendt, A.[1], Siqueira Reis, R.[2], Ferreira Hino, A.A.[3]

AFFILIATIONS

[1]*Pontifícia Universidade Católica do Paraná (PUCPR)*

[2]*Washington University*

[3]*Pontifical Catholic University of Paraná*

Background: Environmental variables are associated with leisure-time physical activity (LTPA); however, environmental inequalities are rarely explored and are not independent of individuals' social or individual characteristics. Purpose: To explore a combined stratifier (Vulnerability Socioenvironmental - VSE) that accounts for social and environmental disparities in LTPA. Methods: We used data of 620 adults from the IPEN study conducted in Curitiba, Brazil (2010). LTPA and sociodemographic variables (sex, age, and economic position) were collected via questionnaires. Environmental data were calculated for 1 km buffers around individuals' addresses, including park area (m^2), public and private recreation facilities, trail count, and entertainment options. Variables were standardized using z-scores. In a second step, PCAwere performed separately for individual and environmental variables, and the resulting loadings were used to create two scores. Individual and environmental indices were constructed separately and then summed to create the VSE. The VSE was classified into quartiles, and the proportion of individuals achieving ≥150 minutes of LTPA was assessed across VSE quartiles. Results: The medians of the individual and environmental indices were -0.017 (p25-p75: -0.734-0.724) and 0.153 (p25-p75: -0.643-0.762), respectively. The VSE presented a median of 0.071 (p25-p75: -0.903-1.005). Comparing LTPA across VSE quartiles, prevalence was highest in Q1 (best social/environmental scenario) at 43.1%, followed by 34.7% in Q2, 27.2% in Q3, and 24.0% in Q4 (worst social/environmental scenario). Conclusions: The VSE stratifier captured social and environmental inequalities in LTPA. Future studies should include consultation with specialists to refine or expand variable selection, explore alternative analytical strategies, and consider versions of the VSE for transport physical activity. Implications for Policy and Practice: Creating an easily implementable combined VSE can help incorporate the environment as a relevant component, which is currently rarely included in studies of physical activity inequalities.

Funding: This study was funded by the National Institutes of Health (NIH; R01 CA127).

Mexico

Development of “Lideres en movimiento”, a school-based intervention to promote physical activity among Mexican adolescents

AUTHORS

Argumedo, G.[1], Gillison, F.[2], Standage, M.[2], Curran, T.[3]

AFFILIATIONS

[1]*National Institute of Public Health*

[2]*University of Bath*

[3]*London School of Economics and Political Science.*

Background Approximately 42.6% of Mexican adolescents aged 15-19 years do not achieve the recommended 60 minutes of daily moderate-to-vigorous physical activity. Since adolescents spend considerable time at school, and schools typically provide appropriate infrastructure, human resources, and curricular opportunities, the school setting is ideal for physical activity interventions. Purpose To conduct a needs assessment (integrating primary and secondary data) for the promotion of physical activity for Mexican adolescents in schools. To translate identified needs into requirements and Performance Objectives for a tailored physical activity intervention, and map these to existing evidence-based interventions with potential for implementation. Methods Intervention Mapping to Adapt was used to systematically adapt an effective intervention to the Mexican context. This involved completing core Intervention Mapping steps, searching for evidence-based interventions, assessing intervention fit, and planning adaptations. Results Five modifiable determinants were identified through the needs assessment: physical activity enjoyment, peer involvement, teacher support, opportunities, and school policies. After mapping essential and desirable criteria to 17 identified candidate evidence-based interventions, the Australian programme Supporting Children's Outcomes using Rewards, Exercise, and Skills (SCORES) was selected as the platform for adaptation. The resulting, adapted intervention was named “Líderes en Movimiento,” [Leaders in Motion] and incorporated two context-specific additional behaviour change strategies and six environmental modifications. Conclusion. Adapting an existing effective intervention proved more efficient than creating a new programme from scratch, resulting in Líderes en Movimiento, a comprehensive school-based physical activity intervention tailored for the Mexican context. Practical Implications This intervention, grounded in robust theoretical and methodological frameworks and specifically adapted for Mexico, is ready for implementation and evaluation in Mexican schools.

Funding Department for Health, University of Bath; National Council on Science and Technology of Mexico (CONACyT, 409083).

United States

Identifying Contextually-Relevant Place-Activation Strategies for Promoting Active Leisure in Mexico: An AI-Assisted Mixed Methods Study

AUTHORS

Garza, C.[1], Montero-Zamora, P.[2], Le, S.[3], Hernandez, C.[4], Kepper, M.[5], Brownson, R.[6], Martínez, A.M.[7], Martinez, M.[7], Gonzalez, O.[7], Lopez-Soto, A.[2], Orozco-Lapray, D.[8], Brown, S.[9], Jauregui, A.[7], Salvo, D.[3]

AFFILIATIONS

[1]People, Health and Place Lab & Center for Research to Community Impact (CRCI), College of Education, The University of Texas at Austin, Austin, Texas, USA

[2]Center for Research to Community Impact (CRCI) & Department of Kinesiology and Health Education, College of Education, The University of Texas at Austin, Austin, Texas, USA

[3]People, Health and Place Lab & Center for Research to Community Impact (CRCI), College of Education, The University of Texas at Austin, Austin, Texas, USA

[4]Department of Physical Activity and Healthy Lifestyles, Center for Health and Nutrition Research, Instituto Nacional de Salud Pública, Cuernavaca, México Secretaría de Ciencia, Humanidades, Tecnología e Innovación, Mexico City, Mexico

[5]Prevention Research Center, School of Public Health, Washington University in St. Louis, St. Louis, MO, USA

[6]Prevention Research Center, School of Public Health, Washington University in St. Louis, and Alvin J. Siteman Cancer Center, Washington University School of Medicine St. Louis, MO, USA

[7]Department of Physical Activity and Healthy Lifestyles, Center for Health and Nutrition Research, Instituto Nacional de Salud Pública, Cuernavaca, México

[8]Center for Research to Community Impact (CRCI), College of Education, The University of Texas at Austin, Austin, Texas, USA

[9]Department of Management, Policy, and Community Health, The University of Texas School of Public Health, Austin, TX, United States

Background: Opportunities for choice-based physical activity are scarce in under-resourced urban neighborhoods in Mexico. Adding or renovating public open spaces may have limited impact if effective place-activation strategies are lacking. Most evidence-based place-activation strategies were developed and tested in high-income countries (HICs). Purpose: Identify contextually-relevant (implementable) place-activation strategies for promoting active leisure in urban low-income Mexican neighborhoods with recent public open space improvements. Methods: Stakeholders and residents of low-income neighborhoods from 10 cities in Mexico rated evidence-based place-activation strategies from HICs for acceptability, feasibility, appropriateness, and adaptability for the Mexican urban context using a Likert scale-based questionnaire, and participated in interviews and focus groups, respectively. Qualitative data were analyzed using a structured, AI-assisted rapid synthesis protocol, which identified key quotes and summarized the main barriers and supports to local implementation. Results: Thirteen evidence-based place-activation strategies from HICs were identified and probed with Mexican stakeholders and low-income neighborhood residents. Ninety-seven residents (average 8.82/session) and 31 stakeholders (3-4/city) participated. Non-physical activity focused educational activities ranked highest for overall implementability by residents (4.70±0.41) and stakeholders (4.78±0.43). Second and third rankings included sports tournaments and low-cost physical activity classes among residents, and resident-led space maintenance and media campaigns among stakeholders. Qualitative data revealed that residents prioritized strategies supporting social connections, youth, and affordability; while stakeholders emphasized long-term sustainability potential and municipal priority alignment. Place-activation strategies requiring equipment, infrastructure, or posing vandalism risks were considered less feasible. Conclusions: Although multiple place-activation strategies from HICs were deemed contextually relevant and potentially implementable in low-income urban neighborhoods of Mexico, priorities varied between stakeholders and local residents. Community engagement and costs were deemed determinant factors for success. Implications for Policy and Practice: Engaging key local actors is critical when using evidence from HICs for informing physical activity promotion programs in low- and middle-income countries. Funding: NIH-Award R01MD019155.

United States

Valued but vulnerable: Can place-activation strategies promoting active leisure in communities support older adult participation?

AUTHORS

Orozco-Lapray, D.[1], Hernández, C.[2], Martinez, A.M.[3], Martinez, M.[3], Gonzalez, O.[3], Lopez-Soto, A.[4], Montero-Zamora, P.[4], Garza, C.[5], Le, S.[5], Kepper, M.[6], Brownson, R.[7], Brown, S.[8], Jauregui, A.[3], Salvo, D.[5]

AFFILIATIONS

[1]*University of Texas at Austin*

[2]*Instituto Nacional de Salud Pública, Cuernavaca, Morelos México Secretaría de Ciencia, Humanidades, Tecnología e Innovación, Ciudad de México, México*

[3]*Department of Physical Activity and Healthy Lifestyles, Center for Health and Nutrition Research, Instituto Nacional de Salud Pública, Cuernavaca, México*

[4]*Center for Research to Community Impact (CRCI) & Department of Kinesiology and Health Education, College of Education, The University of Texas at Austin, Austin, Texas, USA*

[5]*People, Health and Place Lab & Center for Research to Community Impact (CRCI), College of Education, The University of Texas at Austin, Austin, Texas, USA*

[6]*Prevention Research Center, School of Public Health, Washington University in St. Louis, St. Louis, MO, USA*

[7]*Prevention Research Center, School of Public Health, Washington University in St. Louis, and Alvin J. Siteman Cancer Center, Washington University School of Medicine St. Louis, MO, USA*

[8]*Department of Management, Policy, and Community Health, The University of Texas School of Public Health, Austin, TX, United States*

Background: Mexico's older adult population (12.2%, expected to rise to 20% by 2050) faces major challenges, including the physical inactivity and diabetes crises. Place-activation strategies help optimize the use of public open spaces for active leisure, but access for older adults may be limited. Purpose: Examine if and how older adults are considered for the prioritization of evidence-based place-activation strategy selection in low income Mexican urban neighborhoods. Methods: Focus groups were conducted with residents of low-income neighborhoods in ten Mexican cities, where participants discussed the acceptability, feasibility, relevance, and adaptability of 13 evidence-based place-activation strategies for Mexico. A thematic hybrid inductive-and-deductive approach was used for analysis. Inductive coding was used to extract general perceived barriers and facilitators for the adoption and implementation of place-activation strategies in Mexico. Deductive coding was used to search for themes specifically related to older adults. Results: Eleven focus groups with 95 residents were conducted (mean-per-session: 8.45 ± 2.11). Residents consistently emphasized that older adults must be considered as an essential target audience for community-based physical activity promotion programs. Community residents emphasized the feasibility of addressing key barriers to older adults' participation (mobility limitations and lack of comfort features like seating and shade) as a driver of strategy selection. Key place-activation strategies considered potentially responsive or adaptable to older adult needs included: free or low-cost physical activity classes and educational workshops. Conclusions: Despite older adults being highly valued in Mexican communities, active leisure settings and programs are often perceived as lacking supports for them. Place-activation strategies that can explicitly include solutions to overcome older adults' mobility challenges and that support their comfort needs were preferred. Implications for Policy and Practice: The inclusion of older adult perspectives for the selection, adaptation, and implementation of place-activation strategies can help maximize their impact and enhance equity and belonging. Funding: NIH-R01MD019155.

Colombia

Effects of an urban cable-car on physical activity and quality of life

AUTHORS

Sarmiento, O.[1], Baldovino-Chiquillo, L.[2], Pasos, D.S.[2], O'Donovan, G.[2], Cantillo, V.[3], Martinez, L.[4], Arellana, J.[5], Guzmán, L.A.[6], Sarmiento, O.L.[7]

AFFILIATIONS

[1]*School of Medicine at Universidad de los Andes Bogota Colombia*

[2]*School of Medicine at Universidad de los Andes*

[3]*eSchool of Engineering, Universidad de los Andes, Bogotá, Colombia*

[4]*POLIS, Universidad ICESI, Cali, Colombia*

[5]*School of Engineering, Universidad del Norte, Barranquilla, Colombia*

[6]*School of Engineering, Universidad de los Andes, Bogota Colombia*

[7]*School of Medicine at Universidad de los Andes, Bogota Colombia*

Background: Evidence on the impacts of urban transport interventions on physical activity (PA) and quality of life (QoL) in low-income settlements remains limited. This study assessed the effects of the TransMiCable cable car system on PA and QoL in a low-income area of Bogotá, Colombia. Methods: The Urban Transformations and Health study used a natural experiment design conducted between 2018 and 2020. PA and QoL outcomes were measured before and after implementation of the TransMiCable system in intervention and control neighbourhoods. Adult PA was assessed using the International Physical Activity Questionnaire and accelerometers. PA was also measured through direct observation among users of a renovated park in the TransMiCable area and a comparable park in the control area. General health, overall QoL, and QoL domains were evaluated using the WHO Quality of Life–BREF questionnaire. Adjusted multilevel linear and logistic regression models estimated intervention effects. Results: Analyses included 825 participants in the intervention group and 854 in the control group. At baseline, 40.5% of adults in the intervention area and 33.7% in the control area reported at least 150 minutes per week of walking for transport. Accelerometer data showed approximately 35 minutes per day of moderate-to-vigorous physical activity (MVPA) in both groups. At follow-up, no significant differences were observed in PA levels between groups. Observed MVPA increased among male users of the renovated park compared with the control park (OR=2.7; 95%CI=1.1-6.8). Among women in the intervention area, significant improvements were observed in overall QoL (β=5.8; 95%CI=2.5–9.1) and general health (β=5.5; 95%CI=2.1–8.9). No changes in QoL were observed among men. Conclusions: Public transport interventions may help sustain PA levels and improve quality of life, particularly among women. In low-income urban where transport-related walking is a necessity, these interventions should prioritize active travel while improving travel conditions.

Mexico

Urban policies for walking in peripheries: Children's access to walkable environments in Atizapán de Zaragoza

AUTHORS

Resendiz, E.[1], Redendiz, E.[2], Krstik, A.[2]

AFFILIATIONS

[1]*Instituto Tecnologico y de Estudios Superiores de Monterrey*

[2]*Tecnologico de Monterrey*

Background Walking is a key contributor to physical activity and well-being, yet urban policies often inadequately support walkable environments, particularly for children and in the urban peripheries. In Mexico, policy responsibilities for urban planning are distributed across multiple levels of government, which may affect coherence in walking policy and promotion. Purpose This study examines the extent to which urban planning and development policies at the federal, state, and local levels in Mexico create conditions that support walking, with a specific focus on school environments and children. Methods Using Atizapán de Zaragoza, a peripheral municipality in the Mexico City Metropolitan Area, as a case study, ten urban policy documents were analyzed. A checklist of 74 evidence-based urban policy measures—adapted from the Global Observatory of Healthy and Sustainable Cities tools—was used to assess school environments and child-specific measures that promote walking and physical activity Results Preliminary results reveal that local policies included the highest proportion of recommended urban policy measures (42%), followed by state (32%) and federal (22%) policies. Fewer than 40% of policies at any level included measurable targets. References to evidence-based decision-making ranged from 50% to 70% across levels. Walking promotion for all age groups was limited, and only federal policies explicitly addressed walking for children, accounting for just 2% of recommended measures. No state or local policies promoted walking for children. Conclusions Walking-related policies are unevenly and inconsistently integrated across levels of government, with minimal attention to children's needs. Implications for Policy and Practice Improved alignment across government levels is needed to prioritize walkable environments for people of all ages, particularly children. Strengthening child-focused, evidence-based policy coherence across jurisdictions can enhance opportunities for physical activity and well-being in urban peripheries, especially through sustained, long-term implementation. Funding Volvo Research and Educational Foundations (VREF)

United States

Value of scaling-up interventions to reduce physical inactivity in PAHO frontrunner countries to stop obesity

AUTHORS

Macholz, A.[1], Soeteman, D.[2], Vejar-Renteria, L.[2], Fernando Alarcon, L.[2], Gomes, F.[2], Garcia-Larsen, V.[2]

AFFILIATIONS

[1]*Johns Hopkins Bloomberg School of Public Health*

[2]*Pan American Health Organization*

Background Approximately one-third of the Acceleration Plan to Stop Obesity frontrunner countries are located in the Americas. Although physical inactivity is widely recognized as a major driver of obesity and most frontrunners have adopted policies to promote physical activity, implementation in the Americas remains low. Purpose To estimate the value of scaling up interventions to reduce physical inactivity, informing policy priorities among frontrunner countries in the Americas. Methods We evaluated all nine Acceleration Plan frontrunner countries in the Americas: Argentina, Barbados, Brazil, Chile, Mexico, Panama, Peru, Trinidad and Tobago, and Uruguay. We assessed the effects of two WHO-recommended interventions to reduce physical inactivity – brief primary health care counseling and population-wide communication campaigns – implemented individually and in combination. Outcomes were measured as net-savings, defined as healthcare cost savings minus intervention costs. Value of implementation was estimated by calculating differences in net savings between scenarios achieving target coverage and those reflecting current implementation. Assumptions regarding current levels of implementation were informed by the Global Status Report on Physical Activity monitoring framework. Results Substantial variation was observed in the economic value of scaling up interventions to reduce physical inactivity across frontrunner countries. The estimated value of scaling up both interventions ranged from INT$2.1 billion in Mexico to INT$8 million in Trinidad and Tobago. No additional economic value was observed in countries already implementing interventions. Conclusions Scaling-up physical inactivity interventions among Acceleration Plan frontrunner countries in the Americas can generate substantial healthcare savings for noncommunicable disease management while accelerating progress in obesity reduction. Implications for Policy and Practice These findings provide economic evidence to support prioritization of scaled-up interventions to reduce physical inactivity among frontrunner countries in the Americas. Funding Pan American Health Organization

POSTERS

6 Oct | Poster Session Day 1

AgraVida: A Community-Based, Participatory Group Care Model for Diabetes in Rural Mexican Communities- Preliminary results

AUTHORS

Cook, R.[1], Mejia Gonzalez, M.E.[2], Basto Abreu, A.C.[3], Paz-Cabrera, C.D.[3], Vargas Castillo, L.[4], Ramírez Razo, C.F.[4], Meléndez Acevedo, A.L.[4], Hernández Sanchez, J.A.[4], Torres Rasgado, E.[2], Rosales Baez, L.[2], Zuniga, J.[5], Ainslie, R.[6], Torres Ibarra, L.[6], Tepox Bruno, R.[3]

AFFILIATIONS

[1]*University of Texas at Austin, Dell Medical School*
[2]*BUAP*
[3]*INSP*
[4]*BUAP, AMPATH Mexico*
[5]*UT Austin School of Nursing*
[6]*UT Austin*

Background Type 2 diabetes (T2D) is Mexico's second leading cause of death and a major challenge in rural areas. Limited healthcare access, food insecurity, low health literacy, and sociocultural factors drive higher morbidity and mortality. AMPATH Mexico launched AgraVida, a community based, participatory group care intervention to strengthen self-care and address structural barriers. Purpose To implement a community based, participatory group care model for people with diabetes and prediabetes to improve glycemic control and increase self-care behaviors in rural Mexico. Methods The intervention was co-designed with community stakeholders based on a mixed-methods needs assessment. The RE AIM framework was used to evaluate the intervention. Adults with T2D/prediabetes and family members in two rural communities in Puebla were enrolled in a 12 month program consisting of monthly group education sessions, promotora home visits every two months, and clinician home visits twice yearly. Group sessions included brief physical activity, with one session dedicated entirely to exercise. Intervention effectiveness, pre/post glycemic control, clinical indicators (blood pressure, body composition, cholesterol), diabetes knowledge (DKQ"-" R), and self care activities (SDSCA) were assessed. Results Preliminary results show participants (N=79) had limited diabetes knowledge (mean DKQ-R score: 12/22). Adherence to a healthy diet (mean 4 days/week) and overall physical activity (mean 4 days/week) were moderate; however, structured exercise was limited (mean 1 day/week). Conclusions This community-engaged group care model is grounded in local needs and demonstrates strong early acceptability. Ongoing evaluation of efficacy and fidelity will guide adaptation and scale-up in similar rural settings. Implications for Policy and Practice Rural communities show less sedentarism than urban areas but have limited access to culturally adapted education and shared self-care spaces for individuals with diabetes—highlighting the need for simple, community embedded health promotion strategies to improve health and well-being. Funding OVPR UT Austin, Eli Lilly & Company



United States

Associations Between Physical Activity, Screen Time, and Obesity Among U.S. Children, 2018–2022.

AUTHORS

Sarbah, R.[1], Folorunso, T.N.[1], Edem kpene, G.[1], Miranda Tassitano, R.[1], Marinho Tenorio, C.[1], Ramos Flores Nunes, T.[1]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*

Purpose: Physical inactivity and excessive screen time are major modifiable risk factors for childhood obesity. Although both behaviors are independently linked to obesity, less is known about whether meeting the recommended 60 minutes of daily physical activity remains protective after accounting for screen time at the population level. This study examined the associations between physical activity, screen time, and obesity among U.S. children using pooled national data. Method: We analyzed pooled cross-sectional data from the 2018–2022 National Survey of Children's Health, a nationally representative survey of children aged 6–17 years in the United States. Obesity was defined using BMI percentile categories (≥95th percentile). Meeting the physical activity guideline was defined as engaging in at least 60 minutes of physical activity every day in the past week. High screen time was defined as two or more hours per day. Survey-weighted logistic regression models were used to estimate adjusted odds ratios (OR) and 95% confidence intervals (CI), controlling for age, sex, and ethnicity. Results: Overall, 17.6% of children had obesity, 20.9% met the physical activity guideline, and 68.8% reported high screen time. Meeting the daily physical activity guideline was associated with lower odds of obesity (OR = 0.67; 95% CI: 0.61–0.73). High screen time was independently associated with higher odds of obesity (OR = 1.39; 95% CI: 1.26–1.54). After adjusting for age and sex, Black children (OR = 1.71; 95% CI: 1.56–1.87), Hispanic children (OR = 1.91; 95% CI: 1.50–2.42), and children of two or more races (OR = 1.92; 95% CI: 1.29–2.86) had higher odds of obesity relative to White children, while Asian children had lower odds (OR = 0.74; 95% CI: 0.61–0.91). Conclusion: Meeting daily physical activity recommendations is associated with lower obesity risk, while excessive screen time increases risk. Persistent racial disparities highlight the need for equitable obesity prevention strategies.



Barriers and facilitators to achieving a healthy balance in physical activity, sedentary behavior and sleep

AUTHORS

Blas Miranda, N.B.[1], Argumedo, G.[2], Jauregui de la Mota, A.[3], Medina, C.[3], Hernandez Alcaraz, C.[3], Tapia, B.[3], Ramirez, E.[3]

AFFILIATIONS

[1]*National Institute of Public Health (INSP) of Mexico*
[2]*UNAM*
[3]*CINYS-INSP*

Introduction: Physical inactivity, excessive sedentary behavior, and insufficient sleep are increasingly recognized as interrelated public health concerns, contributing substantially to higher risks of cardiovascular diseases, diabetes, and mental health disorders. Among Older Adults (OA) and People with Limited Mobility (PLM) living in low-income conditions, these risks are exacerbated by shared conditions, including reduced functional ability, along with other intersecting barriers such as limited access to healthcare, unsafe environments, and lower levels of social support. In Mexico, this is especially important due to national policies to promote their health. However, data from high-income countries (HIC) is dominant. Objective: To explore barriers and facilitators to physical activity, sedentary behavior, and sleep among low-income Older Adults(OA) and People with Limited Mobility(PLM) in urban and rural Mexico. Methods: A cross-sectional study with a qualitative approach throughout 12 focus groups from July to November 2023 among OA (60+ years old) and PLM (ages 18-59) living in low-income conditions. Focus groups were conducted in rural and urban areas Morelos, Mexico. To seek scientific rigour the Critical Friends technique was used. Results: OA and PLM shared barriers and facilitators. Participants perceived more barriers than facilitators to physical activity, largely due to poor infrastructure, medical indications, physical fatigue, and safety concerns. Environmental factors such as noise, hot weather, insects, and screen use were shared barriers for sleep. However, social support encouraged physical activity, active breaks limited sedentary behavior and relaxation techniques, and consistent bedtime routines enhanced sleep. For OA, personal motivation and green spaces were also physical activity facilitators. For PLM, family overprotection contributed to increased sedentary behaviors. Conclusions: This study highlights the need for inclusive public health initiatives that address structural and social barriers, fostering more active and healthier lifestyles for these populations. Key words: Physical activity, sedentary behavior, sleep, older adults, people with limited mobility

Barriers and facilitators to physical activity among immigrant Latina women

AUTHORS

Torres Duque, L.[1]

AFFILIATIONS

[1]*Université du Québec à Montréal*

Background: Immigration of Latin Americans worldwide has increased in the past 30 years. Studies in industrialised countries show that Latin American immigrants tend to have low levels of physical activity, a phenomenon that is particularly pronounced among Latina women and mothers. In line with the Global Status Report on Physical Activity, which emphasizes the need for programs that support active societies, we sought to identify barriers and facilitators of physical activity among first-generation immigrant Latina mothers. Methods: We searched seven databases for published articles assessing physical activity among first-generation Latina mothers of children under 18 years of age. Scientific articles published since the year 2000 were eligible. After excluding duplicates, we screened 575 papers and retained six for the scoping review. Following the PRISMA ScR, two authors screened and reviewed all papers and extracted data on barriers and facilitators of physical activity. No institutional ethical approval was required for the current study. Results: All retained articles were from the United States. Family-related factors such as childcare responsibilities and household chores were the most commonly identified barriers, discussed in the majority of articles. Other notable barriers included exhaustion, the physical environment, and socioeconomic status. The only identified facilitator of physical activity for first-generation immigrant Latina mothers was social support. The impact of other facilitators varied based on immigration status. Conclusion: Most of the barriers identified here interact together and influence one another. The barriers can be understood through a socioecological framework to reach a better understanding of their influence for promoting physical activity among immigrant Latina mothers and families. Further studies in other countries and regions are needed to better understand the specific geopolitical contexts and needs of immigrant Latina mothers, thereby supporting the promotion of physical activity.



Body Composition in Middle- and Long-Distance Runners: Comparative Analysis of DXA, Bioimpedance, and Anthropometry

AUTHORS

Arenas Morales, C.[1], arenas, C.[2], Mecherques-Carini, M.[2]

AFFILIATIONS

[1]*Universidad Catolica De Murcia*

[2]*UCAM Universidad Católica San Antonio de Murcia, Murcia, Spain.*

Background: Accurate assessment of body composition, particularly fat mass and its regional distribution, is relevant to performance and injury risk in middle- and long-distance runners. Dual-energy X-ray absorptiometry (DXA) is commonly used as an imaging comparator, whereas bioelectrical impedance analysis (BIA) and anthropometry are more accessible in sports practice. Hydration fluctuations and training-related adaptations may affect method agreement, particularly for regional estimates. Purpose: To evaluate agreement between DXA, multifrequency BIA, and ISAK-standardised anthropometry for total and segmental body composition in middle- and long-distance runners. Methods: This ongoing cross-sectional study aims to recruit approximately 50 male and female runners aged 20-55 years. Body composition will be assessed in the same session using DXA (Hologic Discovery Wi), multifrequency BIA (InBody 270S), and ISAK-standardised anthropometry. Participants will follow standardised pre-assessment conditions regarding fasting, exercise, alcohol intake, hydration-related factors, and measurement timing. Running experience, weekly training volume, strength training, injury history, supplement use, and hydration status will be recorded. Outcomes will include total and segmental fat mass, body fat percentage, and lean/fat-free mass. Agreement will be examined using mean differences, correlation coefficients, and Bland-Altman analyses. Results: Data collection is ongoing. Planned analyses will compare total and segmental estimates across methods and quantify systematic bias and limits of agreement. We hypothesise that BIA and anthropometry will show better agreement with DXA for total than segmental outcomes, and that hydration- and training-related variables may partly explain between-method discrepancies, particularly for BIA-derived estimates. Complete results will be available at presentation. Conclusions: This study will provide comparative evidence on total and segmental agreement between DXA, BIA, and anthropometry in endurance runners. Implications for Policy and Practice: Findings may help practitioners interpret accessible methods for segmental body composition assessment, particularly when DXA is unavailable.

Funding: No external funding was received



Brazil

Cardiovascular Adaptations Following a 12-Week Exercise Program in Overweight Youth

AUTHORS

Ferreira da Silva dos Santos, S.[1], Forte Freitas Júnior, I.[1], Helena Cristina da Silva Martins, S.[1], Piovan Silva, M.F.[1], Rodrigues Tebar, W.[1]

AFFILIATIONS

[1]*UNESP*

Introduction Childhood obesity is a major global public health challenge, linked to genetic, environme,ntal, and behavioral factors, and increases early cardiometabolic risk. Aimed To analyze the effects of a 12-week intervention on body adiposity and cardiovascular parameters in overweight children and adolescents. Methods A quasi-experimental study with a quantitative approach was conducted. Thirty-five participants (11.66 ± 2.85 years; 30 boys and 5 girls) were enrolled in a 12-week intervention program conducted three times per week, consisting of team sports practice twice weekly and resistance training once weekly. Body composition was assessed by dual-energy X-ray absorptiometry (DXA). Cardiovascular parameters included central systolic pressure (CSP), central pulse pressure (CPP), cardiac output (CO), peripheral vascular resistance (PVR), cardiac index (CI), and augmentation index (AIx75). Anthropometric measures (body mass, height, sitting height, and leg length) were used to estimate the peak height velocity index (PHVI). Pre- and post-intervention comparisons were performed using the paired Wilcoxon test, adjusted for sex and PHVI. Statistical significance was set at $p < 0.05$. Results No significant differences were observed in participants' body composition post intervention, either in total body fat (pre: 25.86; post: 26.02; $p = 0.929$; $r = 0.02$) or in percentage values (pre: 39.2%; post: 39.84%; $p = 0.394$; $r = 0.15$). Regarding cardiovascular parameters, there was a reduction in CO (pre: 4.38 L/min; post: 4.06 L/min; $p = 0.003$; Cohen's $d = -0.55$), CI (pre: 2.84; post: 2.62 L/min/m²; $p = 0.002$; Cohen's $d = -0.57$), and an increase in PVR (pre: 1.14; post: 1.21; $p = 0.006$; Cohen's $d = 0.50$). No significant changes were observed in CSP ($p = 0.216$), CPP ($p = 0.741$), or AIx75 ($p = 0.898$). Conclusion The 12-week intervention did not modify body adiposity but promoted functional cardiovascular adaptations, suggesting early hemodynamic adjustments independent of changes in body composition.

Mexico

Development of an Academic Observatory for physical activity and sports in Mexican public university

AUTHORS

Camarillo Elizalde, D.G.[1]

AFFILIATIONS

[1]*Universidad Autónoma de Aguascalientes*

-Background: Educational settings provide valuable opportunities to foster an active lifestyle within the community. The effectiveness of implementing actions to promote physical activity and sport should be systematically monitored. Academic observatories analyze and generate strategic knowledge to ensure sufficient and equitable access to physical activity and sport within universities. -Program Delivery or Policy Components: The Observatory organization model includes a steering committee and committees for each strategic axes. These areas are. A) Physical activity programs B) Sports activities C) Infrastructure for physical activity and sport D) Human resource development and research. Strategies for data collection, analysis, reporting, and dissemination will involve faculty, students, the sports department, and institutional communication channels. These processes will ensure ethical standards, transparency, standardized indicators, and compliance with institutional and national regulations. Initial dissemination of findings will include dashboards, periodic reports, and a centralized repository. -Evaluation and Impact: The effectiveness and usefulness of the observatory will be evaluated through the quality and consistency of collected data, the performance and relevance of key indicators, and the degree of stakeholder engagement, research outputs generated, and participation in capacity-building activities. -Conclusions: Local physical activity observatories in public universities strengthen evidence-based decision-making by providing timely data to improve programs, policies, and resource use. They enhance research capacity, promote collaboration, and engage students in applied work. Overall, these observatories support a culture of accountability and continuous improvement in physical activity and sport across the campus community. -Practical implications: An observatory brings local training opportunities for students, staff, and researchers in monitoring techniques, evaluation methods, and evidence-based policy making. -Funding: Observatory will be initially financed through the internal budgets of the participating areas.

Effects of Brief Christian Meditation During Long-Distance Trail Hiking in University Students

AUTHORS

Oliveira-Silva, I.[1], Rabelo, F.[2], Ribeiro Oliveira, J.[2], Andrade, L.[2]

AFFILIATIONS

[1]*Universidade Evangélica de Goiás*
[2]*UniEVANGÉLICA*

This study tested whether brief Christian meditation during a trail hike changes subjective well-being (SWB), perceived exertion (RPE), and affect in university students. Using a quasi-experimental design (April 2024), Physical Education students (n=46; 22.96±4.90 years) completed the same 28.27 km route on two days in and around Pireneus State Park (Cerrado biome), forming an intervention group (n=18) and a control group (n=28). At the first rest stop, the intervention group read Psalm 121 and then sat in 15 minutes of silent contemplation. SWB was measured with the Brazilian Subjective Well-Being Scale (EBES) before and after the hike. RPE (Borg CR10) and affect (Feeling Scale) were recorded at four points along the route. Data were analyzed with repeated-measures ANOVA (EBES), nonparametric tests (Feeling Scale), and Spearman correlations with linear regression for the RPE–affect link. Hiking improved SWB in both groups, with time effects for negative affect and life satisfaction and no group or group-by-time effects across EBES domains. Feeling Scale scores differed between groups only at the end of the hike. In the intervention group, the RPE–affect association turned negative at later points (including the finish), and the final linear model was significant (R^2=0.61). No significant RPE–affect correlations were found in the control group. Thus, long-distance trail hiking appears to be a strong driver of SWB in students. The meditation did not add short-term global SWB gains, but it may aid emotional regulation by weakening the coupling between effort and affect during prolonged hiking. This low-cost practice could support pacing and comfort in guided hikes and trail-based health programs. Limitations include nonrandom allocation by day and a single route. Even so, the findings provide a measurable pathway to integrate spirituality and wellbeing within trail experiences.

Factors Influencing the Sustainability of Community-Based Fall Prevention Exercise Programmes: A Scoping Review

AUTHORS

Abel-Adegbite, I.[1], Shishov, N.[2], Gonzalez Lara, M.[1], Sibley, K.[3], Bouchard, D.[2], Kehler, S.[1]

AFFILIATIONS

[1]*Dalhousie University*
[2]*University of New Brunswick*
[3]*University of Manitoba*

Background: Exercise-based fall-prevention programmes effectively reduce falls among community-dwelling older adults; however, sustaining these initiatives remains a persistent challenge. Programme sustainability is essential for optimising resources, maintaining community trust, and achieving lasting population-level benefits. Purpose: This scoping review examined factors influencing the sustainability of community-based fall-prevention exercise programmes using the Program Sustainability Assessment Tool (PSAT). Methods: A scoping review was conducted following Joanna Briggs Institute methodology and the PRISMA-ScR framework. Searches were completed in Medline, EMBASE, CINAHL, Academic Search Premier, APA PsycINFO, and SPORTDiscus, with no restrictions on language, publication date, or geographic location. From 4,110 records screened, 75 full texts were reviewed; 24 studies met inclusion criteria, with four additional studies identified through citation searching, resulting in 28 included studies. Data were extracted and synthesised according to PSAT domains. Results: Across the 28 included studies, programmes generally received strong support for initial delivery but reported limited strategies for long-term sustainability. Environmental support (20 studies) and partnerships (23 studies) were the strongest PSAT domains, reflecting collaborations with public health agencies, healthcare systems, and local organisations. Organisational capacity (22 studies) focused primarily on trained instructors and programme coordination, with limited attention to workforce continuity or succession planning. Funding stability was reported in 25 studies but most often relied on short-term or pilot funding. Programme evaluation appeared in 21 studies and was predominantly research-driven, while strategic planning was rarely addressed (6 studies), with minimal documentation of long-term operational planning. Conclusions: Community-based fall-prevention exercise programmes demonstrate strong environmental support and partnerships but limited attention to long-term funding stability and strategic planning. Implications for Policy and Practice: Findings indicate that although programmes are well embedded within communities, their continuation often depends on short-term resources. Integrating sustainability planning into programme delivery and investing in stable funding and strategic infrastructure may better support long-term scale-up



Ecuador

Gendered inequities in adolescents' park use and physical activity: a qualitative study in an Andean

AUTHORS

Ochoa-Avilés, C.[1], Palacios-Jerves, S.[2], Ochoa-Avilés, A.[3], Deforche, B.[4], VanDyck, D.[5]

AFFILIATIONS

[1]*University of Cuenca*
[2]*Universidad de Zaragoza*
[3]*Universidad de Cuenca*
[4]*University if Ghent*
[5]*University of Ghent*

Most research on park-based physical activity (PA) in Latin America has focused mainly on physical park features, with limited attention to socioecological factors and gender inequalities that may influence adolescents' park use and PA. Guided by the ANGELO framework, this study explored adolescents' and parents' perspectives on environmental barriers and facilitators affecting park visitation and park-based PA, paying special attention to gendered experiences. A qualitative approach combining walk-along interviews and Photovoice was used to gather context-specific and gender-sensitive insights. Thirty adolescents (14 females) and 21 parents (15 females) were recruited through purposive convenience sampling. Walk-along interviews took place in five urban and peri-urban parks in Cuenca, Ecuador. Afterward, participants completed a photovoice activity guided by thematic prompts on activities, park features, accessibility, safety, and gender-related aspects of park use, followed by focus group discussions. Data analysis employed thematic analysis based on a grounded theory approach. Participants identified barriers and facilitators across all four ANGELO domains. Physical factors included the presence and quality of walking tracks, sports areas, furniture, safety features, green spaces, and blue infrastructure. Sociocultural influences showed clear gendered patterns of park use, with adolescent girls expressing fear of harassment and kidnapping due to broader security concerns in the country, which greatly limited their park visits and PA. These fears were reinforced by parental concerns about safety. In the political and economic domains, participants noted limited coordination between local government and the community, as well as that some park facilities should be charged for use. Policymakers should ensure the availability and quality of park infrastructure and incorporate gender-sensitive, safety-oriented approaches in park design and management to address contextual insecurity and reduce gender inequalities in adolescents' access to public spaces, physical activity, and social interaction

Global Observatory of Healthy and Sustainable Cities: Preliminary Spatial and Policy Analysis in Cuernavaca, Mexico

AUTHORS

Vázquez, E.A.[1], Reséndiz Bontrud, E.[2], Salvo, D.[3], Jáuregui, A.[4], Hernández Alcaraz, C.[4]

AFFILIATIONS

[1]*INSP*

[2]*Center for the Future of Cities, Tecnológico de Monterrey, Monterrey, Mexico;School of Architecture, Art and Design, Tecnológico de Monterrey, Mexico City, Mexico;*

[3]*Department of Kinesiology and Health Education, College of Education, The University of Texas at Austin, Austin, TX, USA; Center for Research to Community Impact (CRCI), College of Education, The University of Texas at Austin, Austin, TX, USA.*

[4]*Centro de Investigación en Nutrición y Salud, Instituto Nacional de Salud Pública, Cuernavaca, Morelos, México*

Background The Global Observatory of Healthy and Sustainable Cities (GOHSC) generates evidence-based spatial and policy indicators applied in Mexican cities, including the Cuernavaca Metropolitan Area (CMA). Its 15% population growth over the past decade and geographic complexity challenge urban planning, limiting governments' ability to act without a health and sustainability lens. Purpose To apply the GOHSC's spatial and policy indicators in a preliminary assessment of the CMA, Mexico. Methods The 1000 Cities Challenge methodology was applied in the CMA, including 10 municipalities. Spatial indicators were derived from publicly available vector and raster layers, and the region's boundary was manually defined based on the urban development limits of the CMA. National, state, metropolitan, and municipal policy documents were identified through searches of official public websites. Documents were independently reviewed by two reviewers, with discrepancies resolved by a third. Data were analyzed using GOHSC tools. Results Spatial indicators were below the median of the first 25 cities analyzed by the GOHSC: within 500 m, only 15.4% had access to public transport and 7.2% to a public open space. Maps showed intra-urban variations in walkability, population density, and street connectivity. Twenty-three of 32 target policies were identified (71.9%), but their quality was low: 17 of 62 points (27.4%), and none included measurable targets. Conclusions The results from this study can offer local governments with key spatial and policy data to strengthen and monitor their urban policies and environments. As well as contribute to identifying specific geographic areas that require more attention as well as policy gaps to promote healthier and more sustainable environments across the CMA. Implications for Policy and Practice Adoption of GOHSC indicators should be promoted among urban planning sectors to ensure continuous monitoring of cities' progress toward health and sustainability.

Guideline Awareness and Self-Reported Activity by Nativity Status Among Hispanic/Latina Women in the United States

AUTHORS

Benitez, C.[1], MacDonald, H.[1], Fedewa, M.[1], Winchester, L.[1], Wind, S.[1], Aguiar, E.[1]

AFFILIATIONS

[1]*The University of Alabama*

BACKGROUND Hispanic/Latina women represent a rapidly growing population in the United States (U.S.) and face a disproportionately higher burden of cardiovascular disease risk factors, despite lower overall cardiovascular mortality. Physical activity (PA) is a key modifiable risk factor; however, nearly 60% of Latinas report no leisure-time PA. PURPOSE To examine whether awareness of PA guidelines and self-reported PA differ by nativity status among Hispanic/Latina women. METHODS Data were collected using an online survey assessing nativity status, awareness and knowledge of aerobic (AE) and muscle-strengthening (MS)guidelines, and self-reported PA using the Global Physical Activity Questionnaire. Outcomes were descriptively compared by nativity status, and the effect size (rank-biserial correlation; rrb) was calculated. PRELIMINARY RESULTS To date, 22 participants completed the survey (15 U.S.-born, 7 foreign-born; 21.6 ± 4.1 years), with recruitment ongoing (estimated sample size for adequate power; n = 68). Awareness of AE guidelines was higher among U.S.-born women [U.S.-born: 2/15 (13%); foreign-born: 0/7 (0%)]. Correct AE guideline knowledge was observed more in foreign-born women [1/15 (7%) vs. 2/7 (29%)]. Awareness of MS guidelines was higher among U.S.-born women [10/15 (67%) vs. 2/7 (29%)]. Correct MS guideline knowledge was observed more among U.S.-born women [12/15 (80%) vs. 4/7 (57%)]. U.S.-born women reported a higher median total PA than that of foreign-born women [4,560 (IQR: 5,860) vs. 2,880 (IQR: 2,330) MET-min/week]. This group difference was of moderate strength (rrb = 0.39), suggesting meaningful group differences with considerable overlap. CONCLUSION Based on our preliminary findings, nativity-related differences were observed in PA guideline knowledge and self-reported PA levels among Hispanic/Latina women, despite uniformly low awareness of AE guidelines. IMPLICATIONS FOR PRACTICE Culturally and linguistically tailored PA education may improve guideline awareness and support PA participation among Hispanic/Latina women. FUNDING American College of Sports Medicine Gatorade Sports Science Institute

Mexico

Health and lifestyle factors associated with meeting physical activity recommendations among Mexican adults.

AUTHORS

García Perfecto, M.I.[1], Contreras, A.[2], White, C.[3], Hammond, D.[3], Garduño, A.[4], Jauregui, A.[2], Garcia, I.[2]

AFFILIATIONS

[1]*National Institute of Public Health*
[2]*Instituto Nacional de Salud Pública*
[3]*University of Waterloo*
[4]*Instituto Nacional de Salud Publica*

Background: Meeting physical activity (PA) recommendations is linked to better health, yet less is known about how psychosocial and health factors relate to meeting PA recommendations among Mexican adults. Objective: To examine associations between meeting PA recommendations (overall and through travel-related PA, work-related PA, and leisure-time PA) and stress, self-rated health, self-rated diet quality, smoking, mental health, and eating-disorder risk (EAT-3). Methods: Cross-sectional analyses used data from Mexican participants aged 18-64 years in the International Food Policy Study (2017) (n=3,816). Logistic regression models were estimated for meeting PA recommendations overall and separately for each PA domain. Models included stress, health status, diet status, mental health, smoking and EAT-3, simultaneously, and were adjusted for age-category, region, education, ethnicity, having children, BMI category, and income adequacy. Results: Reporting stress was associated with lower odds of meeting overall PA recommendations (OR=0.71;0.54–0.93) and for travel-related PA domain (OR=0.72;0.57–0.91). Poor self-rated diet (vs excellent) was associated with lower odds of meeting overall PA (OR=0.54;0.38–0.78) and through leisure-time PA (OR=0.50;0.37–0.68). Poor self-rated health (vs excellent) was associated with lower odds of meeting overall PA (OR=0.53;0.38–0.76), through travel-related PA (OR=0.68;0.50–0.92), and through leisure-time PA (OR=0.50;0.37–0.68). Better mental health (good vs excellent) was associated with higher odds of meeting recommendations through work-related PA (OR=1.28;1.04–1.56). Higher eating-disorder risk was associated with higher odds of meeting recommendations through travel-related PA (EAT-3=3 vs 0: OR=1.99;1.18–3.33), work-related PA (OR=2.79;1.64–4.74), and leisure-time PA (OR=2.06; 1.18–3.60). Women had lower odds of meeting recommendations across domains ($p<0.05$). Conclusions: Stress and worse self-rated health and diet were associated with lower PA guideline adherence while elevated eating-disorder risk with higher adherence across domains, highlighting the value of considerate this topics into PA promotion.

Implementation of evidence-based, place-activation physical activity interventions in Mexico according to government, NGOs and residents

AUTHORS

Mireles, X.[1], Le, S.[2], Lopez-Soto, A.[2], Orozco-Lapray, D.[2], Brown, S.[3], Brownson, R.[4], Garza, C.[2], Hernández, C.[5], Kepper, M.[6], Montero, P.[2], Jáuregui, A.[5], Salvo, D.[2]

AFFILIATIONS

[1]*University of Texas at Austin*

[2]*The University of Texas at Austin*

[3]*UTHealth Houston School of Public Health*

[4]*Brown School at Washington University in St. Louis*

[5]*Instituto Nacional de Salud Publica*

[6]*School of Public Health, Washington University in St. Louis*

Background: In Mexico, only 40% of adults achieve recommended physical activity through active leisure, reflecting a necessity-driven physical activity pattern. The “Comunidades y Espacios Activos” (CEA) project adapts U.S.-based evidence-based place-activation interventions (EBIs) and test active dissemination strategies to promote and maximize active use of renovated public open spaces. Purpose: To use CEA baseline data to assess reported implementation of place-activation EBIs among government officials, NGO representatives, and residents in low-income Mexican neighborhoods. Methods: Blended interview-surveys, including closed-ended survey items (quantitative) and structured open-ended questions (qualitative) were administered to government officials, NGO representatives, and residents participating in the CEA trial across 30 low-income neighborhoods with recently renovated public open spaces in Cuernavaca, Mexico City, León, Guadalajara, and Mérida. Participants reported whether 13 U.S.-based EBIs (e.g., community input, champions exercise classes, after-school programming, sports tournaments, visual identity, incentives, media campaigns, access-improvements) were currently implemented in their public open space. Percentages reporting implementation were calculated for each EBI. Chi-square tests with Bonferroni-adjusted post hoc pairwise comparisons assessed differences across stakeholder groups. Results: The analytic sample consists of 524 respondents (145 government, 72 NGOs, 307 residents). Government officials reported significantly higher implementation of community input (34.5%vs.24.2%,p=.022), champions (61.4%vs.46.6%,p=.003), exercise classes (67.6%vs.57.7%,p=.043), physical activity equipment (35.4%vs.18.8%,p<0.001), after-school programming (25.0%vs.15.0%,p=.011), sports tournaments (60.0%vs.45.9%,p=.005), visual identity (25.5%vs.8.2%,p<.001), media campaigns (36.1%vs.18.0%,p<.001), and access improvements (48.3%vs.31.2%,p<.001) than residents. NGOs reported higher perceived implementation of incentive systems (8.3%vs.2.0%,p=.006) and sports tournaments (61.1%vs.45.9%,p=.006) than residents Conclusions: Higher implementation reported by government officials suggests that implementation may not fully translate into residential awareness or engagement. Whether due to incomplete implementation or limited dissemination, suggesting poor reach and low impact of place-activation efforts. Implications for Policy and Practice: Engaging government officials, NGOs, and residents in implementation efforts may enhance community awareness and maximize the public health impact of place-activation strategies. Funding: NIH(R01MD019155)



Spain

Key role of vision habits in prevention and control chronic conditions, mental health, and obesity.

AUTHORS

Ortega, B.[1]

AFFILIATIONS

[1]*Mira Integral Vision*

Background: Innovative initiative results from engineer 5-years personal qualitative research addressing his vision refraction problems, health and well-being. Engineering project, dealing with mechanism of vision, connection with body systems and health association. Monitoring 2-years walking outdoors with vision, allowing his body systems to balance, and releasing mechanical stress in body. Working sharing experience and helping community. Purpose: Mira Active System initiative discovers guidelines and science, for young people prevention and people with NCDs, mental health, and obesity advance comprehension of their vision habits, how are affecting health, changing to healthy habits, preventing illness, and improving health and well-being. Methods: People less active with sedentary habits indoors, near vision activities, especially screen time habits, damaging health, interfering body systems through Autonomic Nervous System (ANS), being in passive system 'PS', accumulating mechanical stress, preventing quality of rest and sleep, with mental and weight health risks. Practicing physical activity outdoors with vision, accessing through vision to active system of ANS, allows them start health benefits, balancing body systems, preventing illness, and releasing accumulated mechanical stress. Access 'AS' also allows mental and weight health, and quality of rest and sleep. For people less active, light physical activity like walking outdoors enjoying far vision allows them start achieving all health benefits. Avoiding direct sunlight in retina, high production neurotransmitters, cap works fine. Results: Following initiative, improving management of balance body systems, management sunlight, release mechanical stress accumulated in body, mental and weight health benefits. Reducing sedentary habits, improving physical activity, achieving quality of rest and sleep, improving 24-hour movement. Conclusions: People with chronic conditions, mental health, and obesity with better understanding of their condition, and by changing habits, improving health and well-being. Implication for Policy and Practice: Balance body systems and release accumulated mechanical stress in body push forward with chronic conditions not well understood.

Knowledge of Doping in Sport Among High School Adolescents From Different School Systems

AUTHORS

Barros, T.[1], Christine Maccarini Pandolfo, K.[2], Froehlich, M.[2], Benetti Porporatti, L.[2], Azambuja, C.R.[2], Lopes dos Santos, D.[2]

AFFILIATIONS

[1]*Universidade Federal de Santa Maria*

[2]*Graduate Program in Movement and Rehabilitation Sciences – UFSM, Brazil Exercise Physiology Laboratory (LAFIEX – UFSM)*

Background: Doping represents a major threat to public health and sports ethics, and adolescence is a particularly vulnerable period for the use of performance-enhancing substances. Limited knowledge about doping may increase the risk of both intentional and unintentional substance use among youngsters. Schools are strategic settings for prevention; however, evidence on doping-related knowledge among adolescents across different educational contexts remains limited, especially in low- and middle-income countries. Purpose: To investigate the level of knowledge about doping in sport among high school adolescents from different school systems and sexes. Methods: This cross-sectional study included 589 high school students (mean age 16.2 ± 1.1 years) from state, federal, and private schools in southern Brazil. Doping-related knowledge was assessed using the Knowledge domain of the COPAT-Doping questionnaire (12 items; score range: 0–12). Knowledge levels were classified as low (0–3), moderate (4–8), or solid (9–12). Differences according to school system and sex were examined using a 3×2 factorial ANOVA with Tukey post-hoc tests ($p < 0.05$). Results: Overall, adolescents demonstrated a moderate level of knowledge about doping (mean score: 4.75). Students from federal schools showed significantly higher knowledge compared to those from state schools, while private school students presented intermediate levels. Male adolescents had higher knowledge scores than females. The highest levels of knowledge were observed among boys from federal schools, whereas the lowest levels were identified among girls from state schools. No statistically significant interaction between school system and sex was found. Conclusions: Doping-related knowledge among adolescents was moderate and unevenly distributed according to school system and sex, reflecting educational and sociocultural disparities. Keywords: Doping knowledge, Adolescents, School systems, Sports ethics, Health education.

Moving more, sitting less, sleeping well: impacts on diabetes and health costs in Mexico

AUTHORS

Macías, N.[1], Monterubio, E.[1], Campos-Nonato, I.[1], Jauregui, A.[1], Medina-García, C.[1], Aguilar-Salinas, C.A.[2], Gonzalez-Villalpando, C.[1], Alcalde-Rabanal, J.[1]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*

[2]*Instituto Nacional de Ciencias Médicas y Nutrición*

Introduction. Type 2 diabetes (T2D) is rising in Mexico; healthy movement behaviors (MB) as physical activity (PA), sedentary behavior (SB) and sleeping hours (SH) could prevent cases and reduce health-care costs. Objective. To describe the association between PA, SB, SH, and type 2 diabetes (T2D) prevalence, to estimate the number of preventable cases and avoidable care costs if there were compliance with MB recommendations in adults. Methods. We evaluated the last 24-hour PA, SB data and SH between 9,619 adults aged 20-69 years, and risk factors associated with T2D. We calculated the attributable fraction of preventable cases and the care costs that could be avoided if PA, SB, and sleeping recommendations were achieved. Results. If adults aged 20-69 years were less sedentary, the prevalence of T2D could be reduced (26.2% in men and 24.0% in women). On the other hand, if adults engaged in at least 150 minutes of moderate/vigorous physical activity, the prevalence of T2D would decrease by 2.8% in men and 3.6% in women. Finally, if adults slept 7-9 hours, 125,892 cases of T2D in men and 159,441 cases in women would be prevented. Considering the synergistic effect of these three MB, if the Mexican adult population complied with the three recommendations, more than 2.5 million cases of T2D and approximately $2.724 billion in health-care costs could be prevented. Conclusions. Meeting PA, SB, and sleeping recommendations is associated with lower prevalence and care costs for T2D. Programs that promote adherence to the MB recommendations are needed.

Objective Measure of Insecurity and Physical Activity in Urban Mexico: Repeated Cross Sectional Evidence

AUTHORS

Ruiz García de la Cadena, C.G.[1]

AFFILIATIONS

[1]*El Colegio de México*

Background: Mexico faces high obesity and diabetes rates. Physical activity (PA) is essential, yet built environment (BE) factors such as insecurity may constrain it. Longitudinal evidence from low- and middle-income countries (LMICs) remains limited. Purpose: To assess the association between PA and an objective measure of insecurity. Methods: We use annual repeated cross sections on adults aged 18+ years using representative survey of the 32 main cities in Mexico from 2015 to 2023 (n=17,484). PA is measured as weekly minutes (MW), days per week (DW), and meeting the 150-minute guideline (150M). Insecurity is proxied by the log of annual city homicide rates per 100,000 inhabitants. Elasticities are estimated using pseudo-Poisson maximum likelihood models with survey cohort and city fixed effects, addressing omitted variable bias related to average time-invariant BE factors and PA preferences within cities. Analyses are conducted for the pre-pandemic, the pandemic, and the full sample. Sensitivity analyses vary the 150M threshold. Results: No statistically significant associations are observed during the pandemic or in the full period. In the pre-pandemic period, a 10% increase in homicide rates is associated with a -1.91% reduction in MW (95% CI: -3.63% to -0.20%) and a -1.94% reduction in DW (95% CI: -3.33% to -0.50%), robust to adjustment for sociodemographic, weather, and labor market characteristics. No significant association is found in 150M; however, effects become statistically significant at 140-minute threshold. No differential effects are observed by sex, age (older adults), or education. Conclusions: Higher insecurity is associated with lower weekly PA before the pandemic, primarily through fewer days of activity. Implications for Policy and Practice: Findings highlight the need for place-based PA strategies in places facing recurrent or sudden insecurity to reduce urban health inequalities. Continuous PA measures better capture these associations. Further research is needed to assess post-pandemic structural changes.

Perceptions of Acceptance of Physical Activity, Sedentary Behavior, and Sleep Guidelines for the Mexican Population

AUTHORS

González-Alvarez, C.[1], Medina, C.[2], Jáuregui, A.[2], Argumedo, G.[2], Hernández, C.[2], Blas, N.[2]

AFFILIATIONS

[1]*National Institute of Public Health*

[2]*Center for Health and Nutrition Research, National Institute of Public Health, Mexico*

Background Effective implementation of physical activity, sedentary behavior, and sleep guidelines depends on evidence-based recommendations and their perceived acceptability and feasibility among target populations, particularly across diverse socioeconomic contexts. In low- and middle-income countries, empirical evidence remains scarce regarding whether such integrated guidelines are viewed as legitimate and actionable within socially heterogeneous populations. Purpose To validate and pilot the recommendations, key messages, and icons of the Physical Activity, Sedentary Behavior, and Sleep Guidelines for the Mexican Population by evaluating normative acceptance among adults in diverse social contexts. Methods An online survey was conducted among Mexican adults (19–65 years). Acceptance mediators (comprehension, relevance, motivation, usefulness, acceptability, feasibility, and identification) were evaluated for recommendations, key messages, and icons addressing physical activity, sedentary behavior, and sleep. A global acceptance index (low, medium, high) was derived from the data. Analyses were performed on completed questionnaires (n = 1,165). Associations between acceptance and sociodemographic variables, self-reported health conditions, and movement behaviors were examined using chi-square tests and multinomial logistic regression. Results The validation revealed high acceptance (68.7%) of the integrated guidelines in Mexico, , with an additional 20.1% reporting moderate acceptance. No differences across sociodemographic or health characteristics. A significant behavioral gradient was identified ($p < 0.001$): greater adherence to recommended behaviors (physical activity, low sedentary time, adequate sleep) was associated with higher acceptance. This robust bivariate association X2 was attenuated in the multivariate logistic model, suggesting the influence of unmeasured mediating or confounding factors. Conclusions The high and widespread acceptance of the guidelines in Mexico reveals a behavioral gradient showing that those already receiving recommendations are more receptive, leading to inequity in implementation. Implications for Policy and Practice This underscores the need for adaptive policies focused on addressing barriers to ensure equitable adoption across all segments of the population.



Colombia

Physical Activity and Bodily Practices among Colombian University Students: An Analysis of Gender Inequalities

AUTHORS

Tonguino Rosero, S.[1]

AFFILIATIONS

[1]*Universidad del Valle - Institución Universitaria Escuela Nacional del Deporte*

Background: Participation in physical activity (PA) and bodily practices is a complex and multidimensional phenomenon related to health, shaped by intra- and interindividual processes as well as by social structures that condition its development. This issue affects populations unevenly, and disparities become more pronounced in contexts marked by structural inequalities, particularly those related to gender. This study approaches PA through the lens of bodily practices, understood as cultural and historical expressions of the moving body. Purpose: To understand the influence of gender inequalities on participation in PA and bodily practices among students at a public university in Colombia. Methods: A qualitative ethnographic approach was adopted, including participant observation, field notes, and interviews with university students engaged in PA and bodily practices outside the classroom. The analysis was grounded in the Social Determination of Health perspective and gender performativity theory. ATLAS.ti (V24) was used to identify patterns, themes, and emerging categories. Results: Findings indicate that sociocultural gender structures favor male participation in active lifestyles, while women face barriers rooted in traditional roles reinforced since childhood. Gender norms are reproduced early through key social institutions such as family, work, and affective networks, and this division persists into adulthood. These inequalities are also reproduced within the university setting, perpetuating female exclusion from certain physical practices, particularly those involving high physical demands. Conclusions: Participation in PA and bodily practices among university students is not gender-neutral; rather, it reflects and reproduces gender inequalities. Implications for Policy and Practice: These findings highlight the need for gender-sensitive policies and institutional strategies that promote equitable access to physical activity opportunities within academic settings, fostering inclusive environments where bodily practices are recognized as a right for all individuals.

Physical Activity–Based Multimodal Rehabilitation for Migraine

AUTHORS

Montes Monroy, C.A.[1]

AFFILIATIONS

[1]*CRIT*

Background Migraine is a highly prevalent and disabling neurological disorder with substantial personal, social, and economic impact worldwide. Beyond pharmacological management, increasing evidence supports structured physical activity and multimodal rehabilitation as effective non-pharmacological strategies to reduce migraine frequency, intensity, and disability. However, real-world clinical protocols integrating individualized exercise prescription with functional and educational components remain underreported in rehabilitation literature. Objective To evaluate the effects of a structured, individualized, physical activity–based multimodal rehabilitation program on migraine frequency, pain intensity, and migraine-related disability, and to explore associations between clinical outcomes, baseline activity levels, and adherence. Methods A prospective, quasi-experimental study was conducted in an outpatient rehabilitation setting. A convenience sample of 32 adults diagnosed with episodic or chronic migraine according to ICHD-3 criteria was recruited. Participants completed a 12-week multimodal rehabilitation program combining moderate-intensity aerobic exercise, cervical–scapular motor control and strength training, flexibility and postural re-education, and education on lifestyle modification, sleep hygiene, and pacing strategies. Primary outcomes included monthly migraine days, pain intensity measured by numerical rating scale, and disability assessed using the Migraine Disability Assessment Scale. Results After 12 weeks, participants demonstrated significant reductions in monthly migraine days, pain intensity, and MIDAS scores. Lower baseline physical activity levels were moderately associated with greater reductions in migraine days. Program adherence was positively correlated with improvements in migraine-related disability and perceived functional capacity. Conclusion A structured, moderate-intensity, physical activity–based multimodal rehabilitation program significantly reduced migraine burden and disability. Baseline activity levels and adherence influenced clinical outcomes, underscoring the importance of individualized exercise prescription and supporting the integration of rehabilitation-based physical activity into comprehensive migraine management pathways. These findings support scalable, low-cost rehabilitation models aligned with public health goals, promoting active lifestyles, self-management, and multidisciplinary care to reduce migraine-related disability and healthcare utilization across diverse adult populations in routine clinical practice settings globally.

Policy contradictions, gender norms, and community assets in school activity implementation: CFIR study in Mexico

AUTHORS

Castillo Lortia, N.J.[1], Castillo Lortia, N.J.[2], López Toledo, S.[2], García Perfecto, M.I.[2], Tercero Gómez, F.A.[2], Becerril Montekio, V.[2], Jiménez Aguilar, A.[2], Ochoa Aviles, A.M.[3], Jáuregui de la Mota, A.[2]

AFFILIATIONS

[1]*Instituto Nacional de Salud Publica*
[2]*National Institute of Public Health of Mexico*
[3]*UCUENCA*

Background: Although national policies in Mexico recognize the importance of school-based physical activity, there is little evidence on how these are translated into daily practices. This study identified barriers and facilitators influencing the implementation of these policies in urban and rural public schools in Mexico, utilizing the Consolidated Framework for Implementation Research (CFIR). Methods: We conducted a secondary qualitative analysis of data from the SANE project in four public schools (two urban, two rural) from August to December 2025. Participants (n=41) included school principals, teachers, caregivers, and governmental representatives. Data were collected through four Group Model Building workshops to identify system drivers influencing physical inactivity. Analysis was guided by CFIR domains: Intervention Characteristics, Inner Setting, Characteristics of Individuals, Process, and Outer Setting. Preliminary Findings: Factors influencing implementation emerged across all CFIR domains. Within the Intervention Characteristics, stakeholders found theoretical instruction insufficient, favoring experiential, inclusive games. In the Inner Setting, leadership was a key facilitator, but safety protocols and liability concerns restricted movement opportunities. Across Characteristics of Individuals, Inner, and Outer Setting, gender norms shaped unequal access; boys dominated sports areas while girls faced exclusion. The Process domain revealed that weak monitoring and accountability contributed to fragmented implementation. Within the Outer Setting, community assets, such as social service interns and brigades, helped compensate for teacher shortages, particularly in rural settings. Rural-urban disparities also shaped implementation: urban schools faced perceived insecurity, while rural schools lacked basic sports infrastructure. Conclusions: Findings suggest that school-based physical activity implementation is influenced by limited operational guidance, tensions between health and safety, and gender inequities. Advancing these policies requires practical strategies that address these inequities and foster equitable access to movement.



Norway

Pregnancy thermoregulation and heat stress: wearable temperature sensors versus rectal thermometry for core monitoring

AUTHORS

Ah Haakstad, L.[1], Melau, J.[2], Dalhaug, E.M.[3], Gjestvang, C.[3], Brevik-Persson, S.[3], Grydeland, M.[3]

AFFILIATIONS

[1]*Norwegian Schoool of Sport Sciences*
[2]*Joint Medical Service, Norwegian Armed Forces*
[3]*Norwegian School of Sports Sciences*

Background: An increasing number of pregnant women, including elite athletes, train at intensities that may exceed current guidelines. High-intensity exercise can elevate core temperature, raising concerns about maternal hyperthermia and potential fetal risks (e.g. preterm birth, growth restriction, neural tube defects). Accurate monitoring of maternal core temperature may be necessary to evaluate safety, yet few methods combine accuracy and practicality. Purpose: This study compared the non-invasive CALERA Research Sensor with a rectal probe, the gold standard for core temperature measurement, during high-intensity interval running in pregnant and non-pregnant individuals. Methods: Thirty elite and recreational athletes (15 pregnant) completed up to five 5-min high-intensity treadmill-intervals under environmental conditions of 20-21˚C and 38-61% relative humidity. Agreement was assessed using Bland–Altman analyses of second-by-second data, with a predefined ±0.3 °C acceptability threshold. Results: Nearly half of the measurements exceeded the predefined threshold (45% in pregnant vs. 43% in non-pregnant participants), consistent with systematic bias observed between methods. In pregnant participants, the CALERA Research Sensor overestimated core temperature by 0.20°C (95% CI: 0.18, 0.21°C) relative to the rectal probe. In contrast, within the non-pregnant group, the sensor underestimated core temperature by −0.17°C (95% CI: -0.19, -0.15°C). Significant discrepancies were observed during the early intervals but diminished over time. Conclusion: Compared with rectal thermometry, CALERA showed systematic bias in both pregnant and non-pregnant women, indicating that it is not suitable as a stand-alone method for monitoring heat stress. This underscores the need for improved non-invasive core temperature sensors.


Mexico

Prevention of cognitive decline through a multidomain intervention: Preliminary trial results from Mexico City

AUTHORS

Sánchez Arenas, R.[1]

AFFILIATIONS

[1]*Instituto Mexicano Del Seguro Social*

Background: Health interventions aim to change lifestyles to prevent diseases, particularly those without pharmacological treatments, such as dementia. In dementia, preventing cognitive decline influenced by life course factors is crucial. Multidomain interventions combine various components, each targeting different objectives but all working towards the same goal of health. The Mind and Movement Intervention for Cognitive Health (MeMo-Health-Cog) is a preventive program designed to address cognitive decline in older adults. Purpose: To evaluate the effectiveness of two multidomain programs in older adults (OAs): one with aerobic exercise and cognitive training (Square Stepping Exercise) and the control program focused on balance training, stretching, and aerobic activities. Both programs incorporate an educational and motivational component. Methods: A single-blind, randomized clinical trial, with 143 OAs aged 60-75 at risk of cognitive decline from two primary care clinics in Mexico City. Participants were assigned randomly to the intervention group (T1-GR) and the control group (C-GR). Both programs lasted for 24 weeks. The measurements included cognitive functions and physical performance at baseline (t0), t24, and t52 weeks. The analysis was adjusted for response rate, intragroup effect size, and hazard ratio, with covariates included. Results: The final sample included 93 participants (C-GR:44 and T1-GR: 49). Both programs showed positive response rates in cognitive (40%-90%) and motor function (65%-96%), with benefits observed in memory, attention, executive function, and motor function at 24 and 52 weeks. In the comparison, benefits were maintained in both groups; no significant difference was observed, although the intervention led to better cognitive function. Conclusions: Each program showed significant improvements and a trend toward enhancement, demonstrating their complementarity in preventing cognitive impairments.



Colombia

Relationship Between Lifestyle Domains, Academic Environment, and Mental Health in Health Sciences University Students

AUTHORS

Trompetero Gonzalez, A.C.[1], Tordecilla Sanders, M.A.[2], Tellez -Avenadaño, K.Z.[1], Ramírez-Cubillos, K.D.[2]

AFFILIATIONS

[1]*Universidad del Rosario*

[2]*Universidad del Rosario, EMCS, GI: Ciencias de la Rehabilitación, Centro de Estudios en medición en actividad física.*

Background: Mental health problems in university students have risen significantly, with health science students (HSS) representing a vulnerable population due to unique academic stressors and lifestyle (LS) changes. Purpose: To determine the relationship between lifestyle domains the academic environment (AE), anxiety, and depression among HSS. Methods: This cross-sectional study evaluated 298 HSS (20.29 ± 3.1 years ;75.8% women). LS was assessed using the FANTASTICO questionnaire, depression with PHQ-9, anxiety with BAI; and AE perception with the DREEM questionnaire. Data were analyzed using spearman correlations and linear regressions ($p<0.05$). Institutional ethics approval was obtained. Results: Significant negative correlations were found between overall LS and symptoms of depression (rho= -0.151, p=0.009) and anxiety (rho=-0.150, p=0.010). Crucially, the physical activity domain was significantly associated with lower depression (rho=-0.203, $p<0.001$) and lower anxiety (rho=-0.168, p=0.006). Poorer mental health was also strongly linked to low scores in sleep (depression: rho= -0.564 $p<0.001$; anxiety: rho=-0.458 $p<0.001$) and emotional insight (depression: rho= -0.583, $p<0.001$; anxiety: rho=-0.542, $p<0.001$). Conversely, a favorable perception of the AE(DREEM) correlated positively with overall LS(Rho=0.544, $p<0.001$), family support (rho=0.325, $p<0.001$), and insight rho=0.367, $p<0.001$) Conclusions: A healthy lifestyle, driven significantly by physical activity, emotional insight and adequate sleep, is linked to lower anxiety and depression in HSS. A positive academic environment also correlates with better lifestyle habits. Implications for policy and practice: Universities must transition toward institutional health-promotion policies. These findings justify implementing targeted physical activity programs, sleep hygiene workshops, and emotional regulation training withing the healthcare curriculum to mitigate academic stress and protect students' mental health. Funding: None.



Chile

Sedentary behavior in women from a gender perspective: a scoping review

AUTHORS

Muñoz, B.[1], Cowan, I.[1], Kobayashi, S.[1], Latife, A.[1], Valdes, B.[1]

AFFILIATIONS

[1]*Pontificia Universidad Católica de Chile*

Introduction Prolonged sedentary behavior is associated with adverse health effects. Gender roles may influence this behavior; however, the extent to which sedentary behavior has been examined through a gender perspective remains unclear. This review aligns with the comprehensive equity approach to physical activity and health. Objective To explore the scientific evidence on sedentary behavior in women analyzed from a gender perspective. Methods A scoping review was conducted between March and November 2025. Search strategies were developed for PubMed, Scopus, Web of Science, SciELO, LILACS, and EBSCO using terms related to “sedentary behavior” and “gender.” Eligible studies included adults aged ≥18 years and incorporated a gender perspective. Data extraction focused on characteristics of sedentary behavior and the ways gender was considered in the analysis. Results Ninety-nine articles out of 9,189 met the inclusion criteria. Of these, 70.7% originated from high income countries, and 80% were published within the past decade. Overall, 53.5% assessed total sedentary time, and 66.7% relied on self-report. Findings were mixed: 37.4% of the studies reported that women accumulated less sedentary time than men, largely attributed to domestic responsibilities and sociocultural expectations, while 24.2% reported higher sedentary time due to sedentary occupations. Up to 90% incorporated a gender perspective in the discussion section, yet only 10% explicitly declared this in their objectives. None of the included studies proposed nor evaluated interventions with a gender perspective. Conclusion Research on sedentary behavior from a gender perspective has increased lately yet remains limited in scope and conceptual clarity. The main topics addressed include domestic tasks, caregiving and social-cultural factors associated with women’s sedentary behavior. Future studies should incorporate a gender perspective from the planning stage to support more equitable interventions. Keywords: gender; gender perspective; sedentary behavior; sitting time; women.

Six-Minute Walk Test (6MWT) Prediction Equation for Colombian Adults with Obesity

AUTHORS

García Basto, L.D.[1], Tonguino-Rosero, S.[2], Zapata López, J.S.[3], Rosero-Carvajal, H.E.[3]

AFFILIATIONS

[1]*Escuela Nacional del Deporte*

[2]*a. Faculty of Health and Rehabilitation, National School of Sports, Cali, Colombia. (Postal Code: 760001, Cl. 9 #34-01). b. Cardiorespiratory Research Seedbed (SEINCAR), National School of Sports, Cali, Colombia. (Postal Code: 760001, Cl. 9 #34-01). c. School of Human Rehabilitation, Faculty of Health, Universidad del Valle, Cali, Colombia. (Postal Code: 760001, Cl. 4b #36-00).*

[3]*a. Faculty of Health and Rehabilitation, National School of Sports, Cali, Colombia. (Postal Code: 760001, Cl. 9 #34-01).*

Background The six-minute walk test (6MWT) is widely used to assess functional capacity in cardiac rehabilitation. However, most reference equations derive from non-obese or non–Latin American populations, limiting validity in people with obesity and potentially exacerbating health inequities. In Colombia, no population-specific 6MWT prediction equations exist for adults with obesity entering cardiac rehabilitation. Purpose To develop a population-specific prediction equation for the 6MWT in Colombian adults with obesity enrolled in cardiac rehabilitation. Methods Cross-sectional study based on records from a Cardiac Rehabilitation Program in Cali, Colombia (2018–2022). Adults with complete data were included; those with prior bariatric surgery or duplicate records were excluded. Sociodemographic, clinical, BMI, and 6-minute walk distance (6MWD) variables were analyzed. Through bivariate analysis and multiple linear regression, predictors of 6MWD performance were identified to develop a prediction equation. Goodness-of-fit was evaluated using R^2 and adjusted R^2, reporting standard errors and 95% confidence intervals (95% CI). Results The sample was predominantly female (87.6%), with high obesity grade III prevalence (59.7%). Mean 6MWT distance differed significantly by sex, age group, obesity grade, and hypertension status (all $p < 0.01$). Men walked longer distances than women (510 m vs. 489 m), and distance decreased progressively with increasing obesity severity. In the final multiple regression model, sex ($\beta = -34.01$, $p < 0.001$), BMI ($\beta = -34.22$, $p < 0.001$), and hypertension ($\beta = -18.78$, $p = 0.001$) were independent predictors, while age was not significant. The model explained 16.0% of variance ($R^2 = 0.160$). This equation represents the first 6MWT prediction formula for Colombian adults with obesity in cardiac rehabilitation. Conclusions Functional capacity in obese adult is strongly influenced by sex, obesity category, and hypertension. External validation is recommended. Implications for Policy and Practice This equation supports equitable, context-specific functional evaluation in cardiac rehabilitation programs for adults with obesity in Colombia.

South Africa

Socio-Economic Differences in Object-Control Skills and Physical Activity among Boys in South Africa

AUTHORS

Coetzee, D.[1]

AFFILIATIONS

[1]*North-West University*

Background: Object-control skills (OCS) are essential for children's motor competence and sustained engagement in physical activity (PA). Socio-economic status (SES) may influence not only activity levels but also the types of activities that support OCS development. However, context-specific evidence linking SES-related differences in PA participation to OCS proficiency in low- and middle-income settings remains limited. Purpose: To examine socio-economic differences in OCS proficiency and PA participation among nine- to 10-year-old boys in the North West Province of South Africa, and to explore associations between OCS proficiency and commonly reported physical activities. Methods: Secondary cross-sectional data from the NW-CHILD study were analyzed for 455 boys (mean age = 9.9±0.41 years) attending low- and high-SES schools. OCS were assessed using the Test of Gross Motor Development–2, and PA participation was measured using the Children's Leisure Activities Study Survey. Group differences were examined using analysis of covariance and chi-square tests, and associations were explored using Spearman's rank-order correlations. Results: After adjusting for age, boys from high-SES schools demonstrated significantly higher overall OCS proficiency than boys from low-SES schools ($p<0.001$). High-SES boys participated more frequently in organized, resource-dependent activities (e.g., rugby, swimming, tennis), whereas low-SES boys reported greater involvement in informal and transport-related activities (e.g., walking to school, household chores, street soccer). Associations between OCS proficiency and PA participation were generally small. Conclusions: Boys across socio-economic groups were physically active, yet many activities offered limited opportunities for OCS development. Socio-economic inequalities were evident in access to activities that support motor skill refinement. Implications for Policy and Practice: PA promotion should prioritize equitable access to structured, skill-enriching activities, particularly in low-SES settings, to support motor development during middle childhood.

Funding: Supported by the National Research Foundation, the Medical Research Council of South Africa, and the Sugar Association of South Africa.

Spatial Analysis of Participation in a University Program Promoting Physical Activity in Ribeirao Preto, Brazil

AUTHORS

Rosa, J.L.[1], Costa, G.P.[2], Teixeira, I.P.[3], Moraes, C.D.[4], Trapé, Á.A.[2]

AFFILIATIONS

[1]*Research and Studies Group in Physical Education and Collective Health (GEPEFSC). The School of Physical Education and Sport of Ribeirão Preto (EEFERP-USP), University of São Paulo (EEFERP-USP), Brazil*

[2]*Research and Studies Group in Physical Education and Collective Health (GEPEFSC). Ribeirão Preto School of Physical Education and Sport, University of São Paulo (EEFERP-USP), Brazil*

[3]*Department of Physical Education. State University of Minas Gerais (UEMG – Passos Campus), Brazil.*

[4]*The School of Physical Education and Sport of Ribeirão Preto (EEFERP-USP), University of São Paulo (EEFERP-USP), Brazil*

Background The analysis of the spatial distribution of participants' residences in a physical activity (PA) university program can inform strategies to expand territorial reach and support participant retention. Purpose To analyze the spatial distribution of participants in a PA promotion university program in Ribeirão Preto, Brazil, considering road-network accessibility to the activity place. Methods This cross-sectional study used data collected between 2022 and 2025 in the urban area of Ribeirão Preto, Brazil, including 161 participants. Data processing and analyses were conducted using QGIS. Spatial analyses of residential addresses included point counts by territorial unit, road-network distance to the activity site, and mean income by census tract. Road distances were analyzed as continuous variables and by quartiles using descriptive and inferential analyses. Results Participants' addresses were heterogeneously distributed, with a higher concentration in the western region of the municipality, and 42.68% residing within 3km of the university. No associations were observed with the availability of PA facilities in the residential surroundings or with the mean census tract income. Additionally, no associations were found between distance to the university (ranging from 2.41 to 16.39km) and time of participation, nor were differences observed between current and former participants. No differences were identified across distance quartiles. Conclusion The spatial distribution of participants' residences is concentrated in the western region of the city, near the university campus. Future studies using alternative designs and additional data sources, such as individual socioeconomic characteristics, satisfaction, and motivation to participate, may further explore determinants of program adherence and retention. Implications for Policy and Practice These findings highlight the need for targeted strategies to expand outreach, access, and participation in underrepresented areas of the municipality, particularly the eastern region. Suggested actions include establishing university outreach hubs in other areas of the city and promoting PA actions outside the university.

Staying Active Despite the Weather: Physical Activity in Low-Income Urban Mexico

AUTHORS

Flores Pimentel, D.[1], Hernández, C.[2], Tercero, F.[2], Tapia, B.[2], López-Soto, A.[3], Orozco-Lapray, D.[3], Salvo, D.[3], Jáuregui, A.[2]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*

[2]*National Institute of Public Health, Mexico*

[3]*College of Education, The University of Texas at Austin*

Background As extreme weather conditions become more frequent, outdoor physical activity may be constrained. One's perceived ability to remain active despite unfavorable weather (weather-related self-efficacy for physical activity) may physical activity participation, but remains unexplored in Mexico. Objective Examine associations of weather-related self-efficacy for physical activity with active leisure and active transport in low-income urban communities. Methods We used baseline data from the Comunidades y Espacios Activos (CEA) trial in 30 low-income peripheral urban communities in Mexico (Feb-Aug 2026). Intercept surveys among adult (≥18) users of public open spaces assessed weather-related self-efficacy for activity (heat, cold, poor air quality, and rain). Adjusted logistic regression models tested the association between weather-related self-efficacy for activity and meeting guidelines through leisure or transport, and moderation by sex was explored. Results Among respondents (n=941), 22.3% met physical activity recommendations through leisure and 41.5% through transport. Agreement for being able to remain active during adverse weather was 42.1% for very hot days, 80.5% for very cold days, 25.1% for poor air quality days, and 38.5% for rainy days. Across sexes, ability to remain active on rainy days was associated with higher odds of meeting recommendations through leisure (OR=1.33). Among men, high reported ability to remain active in very hot weather was associated with lower odds of active leisure (OR=0.55; 95%CI: 0.31–0.96), but not among women (OR=0.99; 95%CI: 0.68–1.44), interaction term: p=0.057. Conclusions Weather-related self-efficacy for activity was associated with active leisure. The lack of association of any domain of weather-related self-efficacy for activity with active transport supports necessity as the key driver of active mobility. Implications for policy and practice. Increasing weather-related self-efficacy for activity may enhance choice-based physical among low-income urban Mexicans. Likewise, improving weather-related comfort for active travel is essential in Mexico, where most physical activity is necessity-based. Funding NIH-Award R01MD019155.



Colombia

Test-retest and inter-rater reliability of the Brockport Physical Fitness Battery in children and adolescents with

AUTHORS

Rojas Cano, L.E.[1], Camargo Rojas, D.A.[2], Hernández Álvarez, E.[2], Medina Arias, C.[3], Medina Garzón, P.M.[3]

AFFILIATIONS

[1]*Universidad de Santander; Universidad de Boyacá*

[2]*Universidad Nacional de Colombia, Facultad de Medicina, Departamento del Movimiento Corporal Humano, Bogotá, Colombia.*

[3]*Universidad Nacional de Colombia, Facultad de Medicina, Departamento del Movimiento Corporal Humano, Bogotá, Colombia*

Introduction: The Brockport Physical Fitness Test (BPFT) is an assessment tool designed for children and adolescents with intellectual disabilities. However, it lacks reliability values for the Colombian population, hindering the development of intervention programs and public policies aimed at promoting physical activity and exercise. Objective: To determine the reliability of the Brockport Physical Fitness Test Battery in children and adolescents aged 10 to 17 with intellectual disabilities. Materials and methods: A cross-sectional observational study was conducted with a test-retest and inter-rater reliability design. Fifty-six children and adolescents with intellectual disabilities aged 10 to 17 participated. Fat percentage, triceps and calf skinfold thickness, grip strength, modified sit-ups, trunk lift, backsaver sit-and-reach, shoulder stretch, and PACER were assessed twice at 7-day intervals. Likewise, different evaluators were used to ensure inter-evaluator reliability. Results: Each item in the Brockport physical fitness battery was completed. High to excellent test-retest reliability (CCI>0.90, 95% CI: 0.938–0.995; $\rho = 0.909$) and inter-rater reliability (CCI >0.9, 95% CI 0.970-0.999; k=1.00) were obtained for all items evaluated. Conclusion: The BPFT is a reliable and reproducible instrument for children and adolescents with intellectual disabilities in Colombia. It is important to ensure proper training and follow-up of the manual proposed by the BPFT. Implications for policy and practice: This research provides a tool for the objective and safe assessment of physical fitness, enabling the optimal promotion of health, physical, emotional, and social well-being through evidence-based intervention programs designed to meet real needs, thereby impacting community engagement, quality of life, and human development.



Colombia

The Bogotá Ciclovía: Implementation evaluation using the RE-AIM framework

AUTHORS

Briceño Arias, S.[1], Ruiz Rios, D.[1], Riaño, O.[2], Quiroga, L.[1], Martínez, M.[1], Chaves, J.C.[3], Correa, J.C.[1]

AFFILIATIONS

[1]*Juan N. Corpas University Foundation*
[2]*University of Antwerp*
[3]*Juan N. Corpas University Foundation.*

Background: Bogotá's Ciclovía, with more than 50 years of history, is one of the largest and most sustained community-based physical activity interventions worldwide. The RE-AIM framework allows assessment of its performance in real-world settings, considering reach, effectiveness, adoption, implementation, and maintenance. Purpose: To evaluate the implementation of the Bogotá Ciclovía using the RE-AIM framework. Methods: A mixed-methods implementation evaluation was conducted. This included a review of scientific literature and historical documents, analysis of institutional information, semi-structured interviews with key stakeholders, and examination of administrative data and population-based surveys. Data were organized according to the dimensions assessed within the RE-AIM framework. Results: Ciclovía's reach increased; in 2025, average attendance per event corresponded to 22% of the city's population. Fewer than half of participants were women, and most attendees had higher education and belonged to middle socioeconomic levels. The Ciclovía supports compliance with WHO physical activity recommendations and has been replicated in 41 cities. It benefits from a defined administrative structure, strong regulatory support, and infrastructure that facilitates its operation. Challenges remain in territorial equity and gender gaps. Conclusions: The Ciclovía is an effective strategy for promoting physical activity in line with WHO recommendations. After five decades, it reaches over 20% of the population at relatively low cost, with strong political and institutional support and high social acceptance, positioning it as a scalable urban model. Implications for Policy and Practice: The Ciclovía is a cost-effective urban intervention. Its implementation requires political commitment, organizational structure, stable funding, and community participation. Adaptation to local contexts and strategies to strengthen inclusion and equitable access are recommended. Funding: Funded by the European Union (Horizon Europe program), CityMove project, executed with the Juan N. Corpas University Foundation.

Mexico

The Liveability Gap: A Scoping Review Urban Liveability in Global South cities and Arid cities

AUTHORS

Diaz, J.[1], González, A.[2], Luna, D.[2], Higgs, C.[3], Lowe, M.[3], Schifanella, R.[4], Resendiz, E.[5]

AFFILIATIONS

[1]*Instituto Tecnologico y de Estudios Superiores de Monterrey*

[2]*Tecnologico de Monterrey, School of Architecture, Art, and Design, Mexico City, Mexico*

[3]*Centre for Urban Research, RMIT University, Melbourne, Australia*

[4]*University of Turin, Turin, Italy*

[5]*Tecnologico de Monterrey, Center for the Future of Cities, Mexico City, Mexico*

Background: Since 2015, more than 75% of the world's urban population is located in the Global South, where climate change impacts on health are aggravated and urban expansion is accelerating. In this context, measuring urban liveability is essential for advancing healthier and resilient cities. Purpose: This study forms part of a parent study supporting the development of a social housing initiative in Mexicali, Mexico—an arid city with the highest temperatures in the country. The study reviews indicators and methods used to assess urban liveability in peer-reviewed literature, focusing on identifying relevant indicators for Global South and arid cities. Methods: A scoping review was conducted following the PRISMA framework. Three systematic searches were carried out in PubMed, Scopus, and Web of Science in December 2025 to identify studies assessing urban liveability in Global South and arid cities. Inclusion and exclusion criteria were applied during screening, and eligible studies were subjected to data extraction using Rayyan. Results: A total of 501 articles were identified, of which 93 were included for review. Data were extracted on study location, objectives, measurements, indicators, calculation, evaluation models, and alignment with the Urban Liveability Index framework. Preliminary findings indicate limited research on arid cities (n = 33), with very few studies focused on arid cities in the Global South (n = 3). Existing indicators focus on walkability, accessibility, built environment, and residents' perceptions, underscoring the lack of arid-specific liveability frameworks. Conclusions: Final results are expected by March 2026 and will inform the development of an adapted Urban Liveability Index for arid cities. Implications for Policy and Practice: An adapted Urban Liveability Index for arid cities will support research, policy, and practice aimed at improving quality of life, health, sustainability, and urban resilience. Funding: Funding for this project was provided by Constructora Ramher [Project ID: 01081251080].

Transportation Walking and Depressive Symptoms in Older Mexican Americans

AUTHORS

Stroope, J.[1], Stroope, S.[1], Park, S.M.[1]

AFFILIATIONS

[1]*Louisiana State University*

Background Depression is a serious health problem contributing to the global burden of disease. In the U.S., older Hispanics show higher prevalence of depression than other racial/ethnic groups. One contributor to depression in older adults is availability and mode of transportation. Walking for transportation may be especially protective against depression in older adults. Purpose This study seeks to answer the following research question: Are higher levels of walking for transportation associated with lower levels of depressive symptoms among older Mexican Americans? Methods Using data from the sixth wave of the Hispanic Established Populations for the Epidemiologic Study of the Elderly (Hispanic EPESE; N=1,200), we fit multivariable linear regression models to assess the relationship between transportation walking and depressive symptoms (CES-D), adjusting for sociodemographic covariates (age, gender, living alone, marital status, the number of living children, educational attainment, and financial strain). Results A one-time per week difference in transportation walking was estimated to correspond to a 0.459-point difference in depressive symptoms ($b = -0.459$; $p < .001$). Transportation walking had the largest standardized effect in the model ($\beta = -2.69$; $p < .001$). This standardized coefficient was close in size to that of financial strain ($\beta = 2.32$; $p < .001$) and being female (2.27; $p < .0001$) and considerably larger than those of educational attainment ($\beta = -1.29$; p .05), the next largest effects in the model. Conclusions Our study finds that greater frequency of walking for transportation is associated with fewer depressive symptoms in older Mexican American adults. Prioritizing safe and pleasant walking routes to key destinations likely supports mental health in older Mexican Americans. Implications for Policy & Practice Adopting policies and making investments supportive of transportation walking is critical to bolster mental well-being in older adult Mexican Americans.

TRiPS-BR cross-cultural adaptation for parental tolerance to risky play and child physical activity

AUTHORS

Barboza Silveira, M.I.[1], Akira Hino, A.[2], Ramos, B.[2], Gomes Camporeze, R.[2], Schaia Rocha Orsi, J.[2], Isnardi Cardoso Ricardo, L.[3], Wendt, A.[2]

AFFILIATIONS

[1]*Associação Paranaense de Cultura (APC); PUCPR.*

[2]*Research Group on Physical Activity and Quality of Life (GPAQ), Pontifical Catholic University of Paraná (PUCPR), Curitiba, Brazil.*

[3]*MRC Epidemiology Unit, University of Cambridge, Cambridge, United Kingdom*

Background Risky play is a key determinant of healthy child development, promoting motor competence, autonomy, and higher physical activity levels. Parental tolerance of risk shapes children's access to challenging outdoor experiences. However, despite its importance for research and practice, the Tolerance of Risk in Play Scale (TRiPS) remains unavailable in validated Brazilian Portuguese. Objective To cross-culturally adapt the TRiPS and evaluate the semantic, conceptual, and cultural equivalence of a Brazilian Portuguese version (TRiPS-BR). Methods Adaptation followed COSMIN and Beaton guidelines, including translation, synthesis, back-translation, expert committee review, and development of a pre-final version. Ten PhD-level experts in child physical activity and instrument development evaluated all 32 items online for semantic, conceptual, and cultural equivalence using a four-point Likert scale. Content validity was estimated using the Content Validity Index (CVI), calculating item-level (I-CVI ≥ 0.78) and scale-level (S-CVI/Ave) indices. Results All 32 items were retained, demonstrating strong expert agreement. Most items achieved I-CVI ≥ 0.80, several reached perfect agreement (I-CVI = 1.00), and the overall S-CVI/Ave was 0.90, indicating excellent equivalence. Minor linguistic and cultural adjustments improved clarity and contextual relevance, including specification of "risk in play," replacement of ambiguous terms, clarification of supervision contexts, and adaptation of culturally uncommon scenarios. No items required exclusion or conceptual modification, preserving comparability with the original instrument. Conclusions The TRiPS-BR demonstrated excellent semantic, conceptual, and cultural equivalence and is suitable for assessing parental tolerance of risky play in Brazil. Implications for Policy and Practice:TRiPS supports its suitability for assessing parental tolerance of risk in play and for informing research and interventions aimed at promoting child physical activity in Brazil. Funding: Supported by CNPq/MCTI/FNDCT Nº 22/2024 - Knowledge Brazil Program - Support for Network Projects with Brazilian Researchers Abroad (444340/2024-6); Supported by CAPES scholarship, Brazil, for graduate studies.

Mexico

Who teaches physical education? Territorial inequities in Mexico's basic-education teacher workforce

AUTHORS

Diaz, J.[1], Blázquez Sánchez, D.[2]

AFFILIATIONS

[1]*Mexican Observatory of Physical Education and School Sport – CONAPREF*

[2]*RED Global de Educación Física y Deporte & INEFC de Catalunya*

Background Physical education (PE) is central to UNESCO's Quality Physical Education agenda and to the WHO Global Action Plan on Physical Activity, which prioritises strengthening surveillance. In Mexico, however, no public, georeferenced evidence existed on how the PE teaching workforce sustaining basic education is distributed across the territory. Purpose To quantify, for the first time, the territorial distribution and concentration of PE teachers in Mexican basic education, and to measure inequity in provision. Methods Through a national freedom-of-information request, we obtained official Ministry of Education administrative records (Formato 911, 2024–2025 cycle) covering all personnel teaching PE in basic education. We disaggregated the data by state, municipality, school, educational level, and public/private control, and computed concentration and inequality metrics (Gini coefficient, teacher-per-school ratios) with geostatistical referencing and explicit limitations. Results The dataset comprised 110,166 teachers across 32 states, 2,254 municipalities, and 82,547 schools. Provision was highly unequal: the municipal Gini coefficient reached 0.78, with 100 municipalities concentrating 52% of teachers and 213 depending on a single teacher. Seventy-nine percent of schools relied on one PE teacher for the entire community, and early-childhood provision was nearly absent (0.68%). These figures provide official administrative data for the Active Healthy Kids "school PE specialist" benchmark. Conclusions This is the first public, quantitative, territorial baseline of PE workforce inequity in Mexico. National averages mask severe local deficits. Implications for Policy and Practice The evidence identifies priority municipalities for teacher deployment and equity-based workforce planning, and offers a replicable, low-cost surveillance model for other low- and middle-income countries translating global PE and physical-activity commitments into local impact. Funding None. Data obtained through public transparency mechanisms.

Physical Activity Capacity in Nigeria: Results from 2025 GoPA! Country Card

AUTHORS

Otchere, G.[1], Hassan, U.[1], Lopez, S.[1], Oyeyemi, A.[1]

AFFILIATIONS

[1]*Arizona State University*

Background: Nigeria, the most populous nation in Africa, faces a significant burden from physical inactivity-related non-communicable diseases (NCDs), accounting for 27.1% of all deaths. Enhancing physical activity surveillance, policy, and research capacity is essential to address the challenge. The 2025 Global Observatory for Physical Activity (GoPA!) Country Card offers an updated overview of Nigeria's progress to inform national action. Purpose: The study presents Nigeria's status on physical activity surveillance, policy, and research, using the 2025 GoPA! Country Card as a guide for evidence-based policy and practice. Method: The 2025 Nigeria GoPA! Country Card was developed using GoPA!'s standardized methodology. Data were drawn from the most recent national physical activity survey, national policy documents, and peer-reviewed literature used in the 2023 GoPA! systematic review. Indicators included country characteristics, physical activity surveillance, policy, and capacity for physical activity research and promotion. All indicators were reviewed and validated by local experts. Results: The overall prevalence of physical activity among Nigerian adults was 82%. No data are available for domain-specific physical activity. Surveillance is limited, with the only national physical activity survey conducted in 2011, and no follow-up surveys. Nigeria has no national recommendations policy on physical activity, but has a national plan on NCDs. Nigeria ranks 44th globally, contributing 0.34% of worldwide physical activity research output (1950–2023). Physical activity promotion capacity for surveillance and policy was low to medium, with marked gender disparities in first and senior authorship. Conclusion: The 2025 Nigeria GoPA! Country Card shows progress; however, greater political commitment, intersectoral collaboration, and investment are needed to strengthen surveillance and policy implementation as a national health priority. Implication for Policy and Practice: Disseminating the 2025 Nigeria GoPA! Country Card to policymakers can strengthen physical activity surveillance and policy development, elevating physical activity as a national public health priority.

Results from Belgium's 2025 GoPA! Country Card

AUTHORS

Seghers, J.[1], van Uffelen, J.[1]

AFFILIATIONS

[1]*KU Leuven*

Background: Belgium, a high-income European country, operates under a decentralized governance structure in which preventive health and physical activity (PA) promotion are regionally administered. All regional governments have articulated explicit policy objectives to enhance PA and/or sport participation, reflecting sustained political commitment. The 2025 Global Observatory for Physical Activity (GoPA!) Country Card synthesizes Belgium's progress in PA surveillance, policy development, and research output, while identifying gaps and areas for improvement. Methods: The Country Card was produced using the standardized GoPA! methodology, including population-based surveys, policy inventories, and bibliometric analyses. The primary source for PA prevalence was the Health Interview Survey 2023–2024, coordinated by Sciensano, Belgium's national public health institute. Indicators included PA prevalence disaggregated by gender and domain, the presence and implementation of national and regional PA policies, scientific research productivity, and overall national capacity for PA promotion. Results: Belgium maintains comprehensive, population-wide PA guidelines and established surveillance mechanisms spanning the health, education, transport, and sports sectors. Despite a relatively high prevalence of active transport (83% of individuals aged ≥15 years report walking or cycling for transport at least once weekly), only 57% of adults achieve WHO-recommended levels of moderate-to-vigorous intensity PA. Persistent gender and age disparities remain evident. These findings underscore the need for enhanced intersectoral coordination and integration of PA within all relevant policy domains. The "PA on Prescription" programme implemented in both Flanders and Wallonia is a promising strategy for increasing participation in PA. Discussion: The 2025 Country Card introduces, for the first time, sex-disaggregated and domain-specific indicators to support equitable and targeted policy action. Belgium demonstrates substantial policy engagement and research productivity in PA promotion. However, harmonization of surveillance systems and intersectoral governance remains suboptimal. Implications for Policy and Practice:: Belgium has made significant progress in PA policy development, largely driven by regional initiatives.

GoPA!

Burkina Faso

Results from Burkina Faso's 2025 GoPA! Country Card

AUTHORS

Ouedraogo, O.[1], Sawadogo, A.[2], Mejia-Grueso, J.[3], Ramirez Varela, A.[4]

AFFILIATIONS

[1]*Ecole Normale supérieure*

[2]*Institut des Sciences du Sport et du Développement Humain (ISSDH), Université Joseph Ki- Zerbo, Burkina Faso*

[3]*Global Observatory for Physical Activity (GoPA!), Houston, TX, USA*

[4]*UTHealth Houston School of Public Health, Houston, TX, USA*

Background: Burkina Faso faces a growing burden of noncommunicable diseases (NCDs), which account for 45.5% of all deaths. Physical inactivity is recognized as a major and modifiable risk factor for these diseases. Promoting physical activity has therefore become a public health imperative. The efforts of the Global Observatory for Physical Activity (GoPA!) align with this goal by strengthening advocacy for physical activity promotion. Methods: The 2025 Burkina Faso GoPA! Country Card was developed using the standardized GoPA! methodology. Data were compiled from national sources, including the WHO STEPwise (STEPS) survey conducted in 2021 using the Global Physical Activity Questionnaire (GPAQ), government policy documents, peer-reviewed literature, and international databases. Indicators covered physical activity participation, surveillance, policy, research productivity, and national capacity for physical activity promotion. Data were reviewed and validated by local experts to ensure accuracy and international comparability. Results: Overall 84% of adults in Burkina Faso meet global physical activity recommendations, while gender differences in physical activity prevalence are relatively small, disparities persist in physical activity research, with low female representation among first and senior authors. Burkina Faso lacks national physical activity recommendations, although NCD and sport-related strategies are in place. Scientific production remains limited, with only 10 publications between 1950 and 2023 (0.03% of global output), ranking the country 120th out of 182. Discussion: These findings highlight a growing recognition of physical activity as a public health priority, yet gaps in surveillance and research continue to hinder the development of evidence-based policies. Systematic integration of physical activity indicators into health surveys, stronger intersectoral collaboration, and greater investment in local research are essential levers for progress. Emerging collaborations between universities and ministries are promising, but resources and qualified personnel remain insufficient. Conclusion: In Burkina Faso, sustaining surveillance, scaling-up interventions, and expanding research remain major challenges for promoting physical activity.

Results from Country France's 2025 GoPA! Country Card

AUTHORS

Noel Racine, A.[1], Vuillemin, A.[2], Oppert, J.M.[3], Mejía-Grueso, J.[4], Ramírez Varela, A.[5]

AFFILIATIONS

[1]*Université Côte d'Azur*

[2]*Université Côte d'Azur, Lamhess, France*

[3]*Sorbonne university, Department of Nutrition Pitie- Salpetriere university hospital (AP-HP), Paris, France*

[4]*Global Observatory for Physical Activity – GoPA!, Houston, TX, USA.*

[5]*Department of Epidemiology, School of Public Health; Department of Pediatrics, McGovern Medical School; Center for Health Promotion and Prevention Research; Institute for Implementation Science, The University of Texas Health Science Center at Houston (UTHealth Houston), Houston, TX, USA.*

Background Physical inactivity is a major public health concern in France, contributing to the high burden of noncommunicable diseases. The 2025 Global Observatory for Physical Activity (GoPA!) Country Card provides an updated overview of national status in physical activity surveillance, policy, and research to guide decision-makers in identifying priorities for action. Methods Data were compiled using the GoPA! standardized methodology and validated by three national experts. Indicators on physical activity participation, surveillance, policy, research, and country capacity were assessed using national sources, peer-reviewed literature, and international databases. Results Only 62% of French adults meet global physical activity recommendations, with significant differences between men (73%) and women (59%). Over the past decade, there has been a significant increase in physical activity policy formalization within national public policies, demonstrated by the evolution from the initial 2015 GoPA Card to the most recent cards, which identified over 169 policies. Notable examples include a "French National Sports and Health Strategy" and a network of "Sports and Health Houses" across the national territory. According to GoPA!'s systematic review of research on physical activity and health (1950-2023), France ranks 19th globally. The GoPA! Capacity Pyramid indicates high capacity across all levels. Discussion Although policy adoption has increased significantly in recent years, evaluation of their implementation remains insufficient. A high proportion of the population still does not meet recommended physical activity levels, and significant gender inequalities need addressing. France has fallen 7 positions in global physical activity research ranking over a decade. Policy implementation evaluation should remain a priority for both research and practice. Conclusion Comparing data shows how France's capacity has evolved. Significant progress has been made in policy formulation, but implementation capacity and policy impact need evaluation. Despite these advancements, physical inactivity prevalence remains high and France's position in global research has declined.

Results from the USA of America's 2025 GoPE! Country Card

AUTHORS

Andrew Richards, K.[1], Marttinen, R.[2]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*
[2]*George Mason University*

Background The United States of America (USA) includes 48 contiguous states, the federal capital (Washington, DC), two non-contiguous states, and several outlying territories. It is a diverse country, both in terms of biodiversity and its cultural, linguistic, and regional traditions. The USA has experienced increases in sedentary lifestyles that have been linked to a variety of cardiorespiratory complications and co-morbidities. Physical education represents the largest available physical activity intervention. Methods The USA experiences continued struggles between federal and state control over education policy. Subnational analysis was required because many education decisions are made at the state level and policies vary widely. The state of California was used as a case example as they have well-developed guidelines and requirements. Results School-based physical activity research is robust in the USA with available evidence from qualifying studies ranking first in the world. Nevertheless, only 23% of adolescents meet recommended guidelines with girls only about half as active as boys. Some states have no physical education minute requirements. Others, like California, require 200 minutes of physical education at the elementary level and 400 at the secondary level every 10 days. There is no national physical education surveillance system to evaluate policy implementation. Discussion This analysis highlights the diversity of USA policies related to physical education across states and the need for more specialized and targeted surveillance at the subnational level. Current adolescent physical activity prevalence estimates raise concern for the long-term health of young people transitioning into adulthood. Conclusion While research in the USA remains strong, the translation of that research into policies that support robust physical education practices remains paramount. Dissemination strategy Country cards are being highlighted and disseminated online and will be used in the discussion of physical education policies across local, state, and national meetings with physical education professionals and policymakers.

GoPA!

United States

The State of Physical Education in Nigeria: Insights from the 2025 GoPE! Country Card

AUTHORS

Hassan, U.[1], Otchere, G.[1], Lopez, S.[1], Oyeyemi, A.[1]

AFFILIATIONS

[1]*Arizona State University*

Background Nigeria has a population of approximately 223 million, with a literacy rate of 75% among youth (15-24 years). However, Nigeria faces a growing burden of non-communicable diseases (NCDs), many linked to physical inactivity. Physical education (PE) is crucial for promoting youth's physical activity and preventing NCDs. Purpose The 2025 Global Observatory for Physical Education (GoPE!) Country Card provides a baseline snapshot of Nigeria's PE profile to identify gaps and guide policy and strategic action. Methods The GoPE! standardized protocol collected several PE profile indicators. Data were extracted from national and international databases and documents by trained GoPE! researchers who followed a standardized protocol, then validated by the Country Contacts. Key national sources included the National Physical Education Curriculum (2001) and the National Policy on Education (6th edition, 2013). Results Nigeria provides six years of primary and secondary education, with nine years of compulsory education. The school-age population is 36.3 million for primary education and 31.2 million for secondary education. Nigeria allocated approximately 5.98% to 6.39% of its 2024 national budget to education. The prevalence estimates of physical activity among adolescents were unavailable. Although a national, official PE curriculum and a policy mandating PE exist for all compulsory school years of both primary and secondary levels, there was no policy requiring a minimum amount of PE time at either level. Further, Nigeria lacks a national PE surveillance system, has no school-based PE and physical activity intervention research, and a publicly available national PE curriculum. Conclusions The 2025 GoPE! Country Card indicates a weak PE profile in Nigeria, highlighting the need for a national surveillance and monitoring system. Implications for Policy and Practice Nigeria's large school-age population presents both opportunity and urgency for establishing accountability in PE. The absence of crucial indicators indicates gaps in policy implementation, monitoring, and evaluation.

United States

"We'd rather dance than jog!": Albanian Folk Dance & Physical Activity Promotion for Health Equity

AUTHORS

Sentell, T.[1], Ylli, A.[2], Qirjako, G.[2], Hala, R.[2], Pirkle, C.[1]

AFFILIATIONS

[1]*University of Hawai'i*
[2]*Institute of Public Health*

Background: Albanians have a long history of emigration. Over a third of Albanians live outside of historical homelands. Despite this dispersal, Albanians maintain strong cultural traditions, particularly through traditional costumes, language, and folk dance. Within the country, Albania's population is growing more diverse, socially, demographically, and culturally with new political refugees and international migrant workers. Program Delivery/Policy Components: This set of case studies shares applied experiences from cross-sector investigation of Albanian folk dance as a culturally/regionally relevant form of physical activity (PA) for public health promotion, both within Albania at different extremes of the life-course and across the Albanian diaspora. Details were collected concerning policy, practice, and PA surveillance. Experiences were contextualized within a conceptual model and existing international scholarship from an applied scoping literature review. Evaluation/Impact: Quantitative and qualitative data were gathered from (1) a survey in schools in Albania on folk dance, (2) qualitative findings from grassroots community organizations focused on the elderly in Albania about PA preferences, and (3) lessons learned from a review of literature about old and new diaspora engagement in Albanian dancing. Across all, folk dancing is a favored PA activity among Albanians, showing great promise for PA promotion. Conclusions: Albania/Albanians are not well represented in the growing evidence base considering the importance of culturally and regionally relevant PA for public health promotion. This work fills this gap and provides insights for additional scholarship, policy, and programs for those of Albanian heritage across a diaspora, inside Albania, and the promotion of Albanian folk dance specifically. Practical Implications: Many models can be applied across the Albanian diaspora to promote folk dances including different dance styles, skills and metabolic equivalent tasks that can be leveraged for health promotion inside Albania across the lifespan and also across the Albanian diaspora. Funding: The Public Health Resonance Project

South Africa

“Mzansi, What’s Your Move?”: A multi-component campaign promoting everyday physical activity

AUTHORS

Phaswana, M.[1], Gradidge, P.[1]

AFFILIATIONS

[1]*University of the Witwatersrand*

Background: Sedentary behaviour independently contributes to noncommunicable diseases and is a global health concern. South Africans face prolonged sitting across workplaces, homes, and educational settings, worsening obesity and physical inactivity issues. Limited evidence exists on culturally relevant strategies to address sedentary behaviour in South African contexts. Emerging research suggests that even small, incidental movements can confer health benefits. This study aimed to develop and evaluate a culturally tailored, multi-component campaign to promote everyday movement. Methods: The “Mzansi, What’s Your Move?” campaign used a multi-modal knowledge translation approach, including a public mural, a three-part comic series, and publicly accessible Conversation articles. The campaign promoted the message that “every move counts”, encouraging movement embedded in daily routines (e.g., walking, housework, standing, and active commuting). Engagement metrics (views, shares, comments) were used to assess reach. Descriptive statistics summarised engagement, while thematic analysis of responses explored awareness and perceived behavioural change. Results: The campaign achieved high engagement across platforms, with strong interaction with visual and written content. Responses indicated increased awareness of incidental movement and a shift in perceptions towards recognising everyday activities as valid forms of physical activity. Participants reported intentions to incorporate movement into daily routines and to support environments that enable active living. Conclusion: A culturally tailored campaign integrating comics, public art, and media engagement offers a promising and scalable method for enhancing physical activity and decreasing sedentary behaviour across diverse life domains in South Africa. Translating evidence into relatable, actionable messages, this strategy shows promise for promoting everyday movement in South Africa.

United Kingdom

A mixed-methods evaluation of a semaglutide and lifestyle intervention in a secure mental health setting

AUTHORS

Brenisin, K.[1], Kinnafick, F.[1], King, J.[1], Breen, K.[2]

AFFILIATIONS

[1]*Loughborough University*
[2]*St Andrew's Healthcare*

Background Obesity is linked to low physical activity (PA) and morbidity. In psychiatric settings, antipsychotic-induced weight gain (AIWG) is common, exacerbated by barriers to healthy lifestyles, including limited PA opportunities and restricted food choices. Semaglutide, a glucagon-like peptide-1 receptor agonists (GLP1-RAs), promotes weight loss, although its effectiveness on AIWG in patients with severe mental illness (SMI) is untested. Objectives To assess the impact of semaglutide in combination with a lifestyle intervention (PA, nutrition, sleep) for patients with atypical AIWG within a secure psychiatric setting. To assess the intervention's implementation from staff and patient perspectives. Methods Nineteen adult inpatients with SMI and AIWG, treated with olanzapine or clozapine were recruited. Participants receive semaglutide at a maximum tolerated maintenance dose of up to 2.4mg weekly for 2 years, alongside educational lifestyle intervention supporting healthy weight adoption and maintenance. Outcomes are collected at baseline and at variable follow-ups ranging from 4-52 weeks. Data includes physical health outcome measures, PA level, changes in eating behaviour (COEQ, LFPQ) and quality-of-life (IWQOL-Lite-CT). Semi-structured interviews explore intervention implementation and patient and staff acceptance. Weight and metabolic trajectories are assessed to identify predictors of treatment response. The evaluation follows the Medical Research Council framework. Results Early findings indicate improvement in weight (-10.37kg), BMI (-3.51kg/m²), as well as total craving control scores (+20.05) and quality of life (+12.83). Qualitative data suggest that weight loss enhances motivation to engage more in PA. Findings highlight that combining GLP-1 RA with lifestyle intervention may positively influence physical health and wellbeing in patients with AIWG. Implications for Policy and Practice: A future 12-months data analysis will provide a clearer understanding of the intervention impact, informing interventions within a psychiatric setting. Conclusion Preliminary findings demonstrate feasibility of the intervention for patients living with AIWG-associated obesity, residing in a secure psychiatric setting.

United Kingdom

A Realist Evaluation of Trauma-Informed Physical Activity: Theory Refinement Across Multiple Cases

AUTHORS

Makawa, A.[1], Kinnafick, F.[1], Witcomb, G.[1], Jarvis, H.[2]

AFFILIATIONS

[1]*Loughborough University*
[2]*MIND*

Background Growing recognition of trauma's impact on health has led to the adoption of trauma-informed principles across services supporting people living with mental health difficulties. Within the physical activity sector, this has contributed to the emergence of trauma-informed physical activity (TIPA). As TIPA gains momentum, there is a need to understand not only its outcomes, but the mechanisms through which these outcomes occur and the contexts in which they are activated. Purpose Using a realist evaluation approach, this study examined TIPA across three community organisations in England. Methods Pre-defined programme theories were tested and refined using ethnographic methods. Data collected included: 16 hours of interviews and focus groups with 30 participants (including coaches, participants, and volunteers); 77 hours of participation in and observation of physical activity sessions; 89 pages of written field notes; and 12 hours of audio reflections to support retroductive objectivity. Data collection and analysis were iterative and supported by reflexive practice to enable ongoing theory refinement. Results Findings provided substantial support for eight programme theories across the three cases. Social connection emerged as a central mechanism, with participants describing feelings of belonging and safety. The provision of meaningful choice was particularly important for trauma-affected participants, fostering a sense of control in contrast to previous experiences of powerlessness. Consistency in staff and session delivery supported routine, trust-building, and the development of meaningful relationships, particularly where participants felt a sense of relatability with those delivering the sessions. Conclusions These findings demonstrate how TIPA operates in practice and offer theoretically informed guidance for the design and delivery of physical activity programmes for trauma-affected populations. Implications for Policy & Practice TIPA relies on delivery conditions that enable and promote social connection, meaningful choice, and consistency. Commissioners and providers should ensure organisational structures support relational continuity, flexible delivery, and participant autonomy.



A Scoping Review on Exercise Interventions for South Asian Individuals Living with Chronic Conditions

AUTHORS

Bansal, M.[1], Bhullar, I.[2], Puloski, G.[3], Cowan, E.[4], Daun, J.T.[1], McDonough, M.H.[1], Turin, T.C.[1], Culos-Reed, S.N.[1]

AFFILIATIONS

[1]*University of Calgary*
[2]*University of Alberta*
[3]*Queens University*
[4]*Western University*

Background: Exercise can provide a range of physical and psychosocial benefits for individuals living with various chronic conditions. However, some populations do not reach the recommended exercise levels. In particular, individuals of South Asian heritage are the most sedentary visible minority group in Canada. The rising incidence of chronic conditions and low exercise uptake among this population may necessitate culturally tailored exercise interventions to enhance participation and support chronic condition management. The purpose of this scoping review was to examine exercise interventions for individuals of South Asian heritage with chronic conditions and to explore the nature and extent of cultural tailoring. Design: JBI recommendations and methodologies were followed for this scoping review. Data Sources: Medline (OVID), Embase (OVID), APA PsycInfo (OVID), Scopus (Elsevier), CINAHL (Ebsco), SportDiscus (Ebsco), and Web of Science were searched. Eligibility Criteria for Selecting Studies: Eligible studies included exercise or exercise-education interventions for individuals of South Asian heritage living with any chronic condition (e.g. cardiovascular disease, diabetes, obesity, hypertension, obesity). Results: 44,936 studies were identified. 30 interventions met the eligibility criteria. Intervention specifics, including exercise type, chronic condition, tailoring approaches, and intervention outcomes, were extracted. Interventions included exercise/lifestyle education alone (n=18), exercise alone (n=5), and a mix of education and exercise (n=7). Tailoring strategies included a focus on language, location, recruitment, family, gender, types of movement, and other cultural considerations. N=8 studies utilized formal participatory frameworks to inform tailoring. Overall, mixed improvements were found in health and behavioural outcomes. Though infrequent, when implementation outcomes were reported, adherence was typically low. In general, cultural tailoring across the interventions was commonly done, but the strategies used varied and transparent reporting was inconsistent. Conclusion: Future studies incorporating participatory approaches and implementation science frameworks may facilitate participation in culturally-tailored exercise interventions for South Asian populations living with chronic conditions.

Germany

Accelerometry-based physical activity and cardiorespiratory fitness in the German National Cohort (NAKO)

AUTHORS

Brummer, J.[1], Herbolsheimer, F.[2], Kluttig, A.[3], Krist, L.[4], Leitzmann, M.[5], Steindorf, K.[2]

AFFILIATIONS

[1]*Division of Physical Activity, Cancer Prevention and Survivorship, German Cancer Research Center (DKFZ), Heidelberg*

[2]*Division of Physical Activity, Cancer Prevention and Survivorship, German Cancer Research Center (DKFZ), Heidelberg, Germany*

[3]*Institute for Medical Epidemiology, Biometrics, and Informatics, Interdisciplinary Center for Health Sciences, Medical Faculty of the Martin Luther University Halle-Wittenberg, Halle (Saale), Germany*

[4]*Institute of Social Medicine, Epidemiology and Health Economics, Charité – Universitätsmedizin Berlin, Berlin, Germany*

[5]*Department of Epidemiology and Preventive Medicine, University of Regensburg, Regensburg, Germany*

Background Both moderate-to-vigorous-intensity aerobic physical activity (MVPA) and cardiorespiratory fitness (CRF) are favorably associated with health outcomes. Purpose To characterize the associations between objectively measured MVPA and CRF, examining adherence to the 2020 World Health Organization (WHO) guideline as well as categorical and continuous representations of MVPA. Methods We analyzed hip-worn accelerometry data from the baseline examination of the population-based German National Cohort (NAKO). Weekly volumes of moderate- (MPA) and vigorous-intensity aerobic physical activity (VPA) were derived using established acceleration thresholds, and adherence to the 2020 WHO MVPA guideline was determined. CRF was assessed as physical working capacity at 75% of maximum heart rate (PWC75%, W/kg), derived from submaximal cycle ergometry. Adjusted, sex-stratified linear regression and dose-response analyses using restricted cubic splines were applied. Results Among 2,654 adults (47.2% female; mean age 47.8±11.6 years), over 95% met the 2020 WHO MVPA guideline, primarily driven by high MPA volumes. Higher MVPA was associated with higher PWC75% in both sexes; for example, meeting versus not meeting the guideline was associated with higher PWC75% (females: $\beta = 0.25$ W/kg, 95% confidence interval 0.16–0.33; males: $\beta = 0.37$ W/kg, 95% confidence interval 0.22–0.53). Intensity-specific analyses further suggested stronger and non-linear associations between VPA and PWC75%, characterized by a steeper increase in PWC75% at lower levels of VPA followed by a flattening of the curve at higher volumes. Conclusions In these interim analyses, objectively measured MVPA and guideline adherence were associated with higher CRF in both sexes. Intensity-specific analyses pointed to a prominent role of VPA. Implications for Policy and Practice These findings support current MVPA guidelines while indicating that the role of VPA in relation to CRF may be particularly large.

Funding The NAKO study is funded by governmental and academic funders in Germany.

Ghana

Active Neighbourhoods, Active People: Built Environment Determinants of Physical Activity and wellbeing in Ghana

AUTHORS

Nyawornota, V.K.[1], Tay, D.A.[2], Ocansey, R.[3]

AFFILIATIONS

[1]*University of Ghana, Legon*
[2]*University of Ghana*
[3]*University of Education*

Abstract Background: Regular and adequate participation in physical activity (PA) is associated with numerous health benefits and a major approach for reducing the high rate of non-communicable diseases (NCDs) globally. A supportive and favourable built environment (BE) may contribute to high levels of physical activity (PA) and enhance overall well-being within a population. Objectives: This study examines the association between the built environment characteristics and physical activity and well-being in Ghana. Methods: The International Physical Activity Questionnaire (IPAQ) and the Neighbourhood Environment Walkability Scale (NEWS)-Africa instrument were used in a cross-sectional study to gather data from 1075 people aged 17 years and above, selected from diverse communities (by socioeconomic status (SES) and residential density in three regions of Ghana). Results: About 53% of the respondents were female. One out of four respondents engaged in moderate to vigorous PA (MVPA). Five built environment attributes (residential density, proximity to service facilities/places, access to service facilities/places, place for walking/cycling/playing, and crime safety) showed significant associations with overall PA. Conclusion: Walkability-friendly built environments and low residential density are important correlates of high physical activity levels among Ghanaians, highlighting the need for urban and neighbourhood planning strategies that promote active living.

United Kingdom

Adolescent acceptability of physically active learning in UK secondary schools

AUTHORS

Hollander, L.[1], Armstrong, M.[2], Emm-Collison, L.[1]

AFFILIATIONS

[1]*University of Bristol*
[2]*University of Bath*

Background Physically active learning (PAL) integrates movement into curriculum delivery. UK adolescents spend much of the school day sedentary and report low school enjoyment. PAL has the potential to reduce sedentary time whilst supporting educational outcomes in secondary age pupils. However, pupil's views of PAL have not been explored. Purpose To investigate the acceptability of PAL among adolescents in UK secondary schools. Methods A mixed-methods study was conducted in four schools in South-West England involving 330 pupils aged 11-18-years. Following a brief subject-relevant PAL activity, enjoyment of PAL, perceived impacts on focus, health, and learning, and willingness to participate in future PAL were assessed via survey. Open-ended responses explored pupils' perspectives in greater depth. Quantitative data were analysed descriptively and stratified by year group and gender; qualitative data were analysed via content analysis. Results Pupils reported high enjoyment (M = 3.93/5, SD = 0.79). Positive perceptions were also reported for health (M = 3.49, SD = 1.07), learning (M = 3.73, SD = 1.05), and focus (M = 3.40, SD = 1.07). Enjoyment differed by year group, with Year 8 pupils reporting higher enjoyment than Year 10. Most (74.6%) wanted more PAL in lessons. Qualitative findings indicated that PAL was perceived as fun and socially engaging; a refreshing change; supportive of learning, engagement, and transferable skill development; and a desirable addition to classroom practice. Conclusions High pupil acceptability suggests PAL may be a feasible strategy for integrating movement into the school day. Implications for Policy and Practice Embedding movement within curricular learning may provide a feasible approach to reducing sedentary time. Findings highlight the value of PAL from pupils' perspectives, suggesting that co-designed PAL may support successful, inclusive, educationally purposeful, and sustainable implementation in secondary schools as part of a whole-school approach to physical activity.

Funding ESRC [grant number ES/P000630/1].

Canada

Adolescent Movement Behaviours and Emotion Regulation: A Scoping Review of Longitudinal Research

AUTHORS

Ames, M.[1], Sihoe, C.E.[1], Storey, Q.[1], Grant, G.[1], Styba-Nelson, K.[1], Tremblett, J.[1], Foss, S.[1], Craig, S.[2], Buckler, E.J.[1]

AFFILIATIONS

[1]*University of Victoria*
[2]*University of Guelph*

Background: Adolescence is a critical time for emotion regulation development. Given emotion regulation is a transdiagnostic feature of psychopathology, behaviours that encourage or foster emotion regulation during adolescence could help to prevent mental health concerns (e.g., depression, anxiety). Preliminary research shows encouraging associations between 24-hour movement behaviours (i.e., physical activity, sleep, screen behaviours) and emotion regulation. However, the temporal and directional nature of these associations remain unclear. Purpose: Summarize the existing literature examining associations between movement behaviours and emotion regulation among adolescent longitudinal studies. Methods: Following the PRISMA-ScR protocol, we searched for relevant peer-reviewed studies across SPORTDiscus, PsychInfo, MEDLINE, CINHL, and WebOfScience. Inclusion criteria: a) focus on adolescence (baseline mean age of 10-19 years old), b) measurement of emotion regulation, c) measurement of at least one movement behaviour, d) observational and longitudinal research design, e) available in English, and e) peer-reviewed published articles. Results: Out of 3,564 unique search results, 9 articles (k = 7 unique studies) were included in the review. All studies were published in the last 4 years, most were from China (k = 4; 57.1%) and collected data using school-based samples (k = 6; 85.7%). All studies were traditional longitudinal studies. Sample sizes ranged from 1,170 to 2,645 with a mean age of across studies of 13.86 years (SD = 1.50). Most studies focused on sleep (k = 6), followed by screen behaviours (k = 4), and only one study examined physical activity. The strongest evidence is for a bidirectional association between sleep and emotion regulation. Conclusions: Our review identified a gap in studies examining longitudinal associations between physical activity and emotion regulation. Research shows sleep tends to predict emotion regulation, and vice versa. I Implications for Policy and Practice: Although preliminary, findings suggest movement behaviours may be an important, but not well understood, strategy to promote adolescent emotion regulation.

South Africa

Age-Related Changes in Predictors of BMI in 6, 9 and 12-Year-Old Boys and Girls

AUTHORS

Gerber, B.[1], Pienaar, A.E.[2]

AFFILIATIONS

[1]*North-West University*
[2]*PhASRec, North-West University,*

Background: Information on childhood body composition is critical to understanding children's growth, development, and long-term health outcomes. BMI metrics, however, have several limitations for assessing and understanding changes in BMI. Therefore, understanding the influence of various body composition factors (covariates) that are linked to, and influence, BMI over time in growing children is important. This study aims to determine sex differences in longitudinal changes in covariates of BMI from 6 to 13 years. Methods: Participants (N = 332, 160 boys 172 girls) from North West Province in South Africa were assessed longitudinally at the following three time-points during their primary years of schooling: Grade 1 (6–7 years); Grade 4 (9–10 years); and Grade 7 (12–13 years). Covariates included: stature (cm); body weight (kg); sub-scapular-, calf-, and triceps skinfolds (mm); body fat percentage (%), relaxed forearm, waist and mid-upper arm circumferences; percentage fat weight; and percentage muscle weight. Correlational analysis and multiple stepwise regression analysis in SPSS analyzed the significance of the contributions of the different covariates to changes in BMI from 6 to 12 years. Results: Different covariates influence BMI in boys and girls at different ages and the covariates also change over time in boys and girls. Weight had the strongest influence on the BMI of boys and girls, although the prediction value decreased over time. Weight and stature were consistently the strongest BMI predictors across all ages in boys. In girls, a broader range of variables influences BMI from a younger age, where slightly higher BMI correlations with fat-related variables emerged, and the percentage of fat weight distribution was a strong influential factor. These findings indicate a more in-depth analysis of BMI to determine sound intervention strategies.

Japan

Association Between Subjective Functional Mobility and Self-Efficacy for Evacuation Behavior in Older Adults

AUTHORS

Kubota, A.[1]

AFFILIATIONS

[1]*Tokai University*

Background: In disaster situations, older adults' evacuation behavior is influenced by both physical function and psychological factors such as self-efficacy. From a physical activity and public health perspective, subjective functional mobility may play an important role in shaping confidence in performing health-protective behaviors during emergencies. However, empirical evidence on this relationship remains limited. Purpose: This study aimed to examine the association between subjective functional mobility and self-efficacy for evacuation behavior during disasters among community-dwelling older adults. Methods: A cross-sectional, internet-based survey was conducted among community-dwelling older adults. Data were collected on demographic characteristics, subjective functional mobility, self-efficacy for evacuation behavior, and self-rated health status. A total of 825 participants were included in the analysis. Associations between subjective functional mobility and self-efficacy for evacuation behavior were examined using descriptive analyses and ordinal logistic regression. Results: Older adults with better subjective functional mobility reported higher levels of self-efficacy for evacuation behavior. Ordinal logistic regression analysis showed that participants who reported frequently tripping or slipping inside the home had significantly lower self-efficacy for evacuation behavior. In addition, being female and reporting poor self-rated health were independently associated with lower self-efficacy for evacuation behavior. Conclusions: Subjective functional mobility was significantly associated with self-efficacy for evacuation behavior among community-dwelling older adults. Perceived limitations in everyday mobility may undermine confidence in performing emergency-related health behaviors. Implications for Policy and Practice: Public health strategies that promote functional mobility and physical activity, together with interventions to enhance self-efficacy, may help strengthen older adults' capacity to engage in effective evacuation behavior during disasters.

United States

Associations between 24-hour physical behavior reallocation and depression, anxiety, and stress symptoms

AUTHORS

Wickel, E.[1], Abeyagunawardene, D.[2]

AFFILIATIONS

[1]*University of Tulsa*
[2]*Duke University*

Background: Although physically active behaviors are associated with improved health outcomes, less is known about how the distribution of behaviors across the 24-hour day relates to mental health. Purpose: To estimate associations between physical behavior reallocations and symptoms of depression, anxiety, and stress in adults (N = 165; 78% female). Methods: Sleep, sedentary behavior, standing, light physical activity (LPA), and moderate-to-vigorous physical activity (MVPA) were measured using a thigh-worn accelerometer (activPAL4). Depression, anxiety, and stress symptoms were assessed using the PHQ-9, GAD-7, and PSS, respectively. Compositional data analysis estimated changes in continuous symptom scores and predicted probabilities of moderate-to-severe symptoms (PHQ-9 ≥ 10, GAD-7 ≥ 10, PSS ≥ 14) associated with 1:1 behavior reallocations in 5-minute increments across a ± 60-minute range. Models were adjusted for age, sex, education, smoking, employment, and race. Results: Reallocating 30 min/day from LPA or MVPA to sedentary behavior was associated with higher depressive symptom scores (0.52, 95% CI: 0.18 to 0.86 and 0.36, 95% CI: 0.03 to 0.69, respectively). In contrast, reallocating 30 min/day from sleep or sedentary behavior to standing was associated with lower stress scores (-0.59, 95% CI: -1.08 to -0.11 and -0.64, 95% CI: -1.13 to -0.16, respectively). Few statistically significant associations were observed for anxiety symptoms. Reallocations involving MVPA showed the most consistent associations with symptom severity. Increasing MVPA was associated with a 2-3 percentage-point lower probability of moderate-to-severe depression, whereas reallocating time from MVPA to sedentary behavior was associated with nearly a 7 percentage-point higher probability. Conclusions: Reallocating time from MVPA to sedentary behavior was associated with less favorable mental health outcomes, particularly depression. Reallocating time to standing was associated with lower stress. Implications for Policy and Practice: Maintaining MVPA and reducing sedentary time are associated with better mental health. Funding: Oklahoma Center for the Advancement of Science & Technology, HR23-065.

Lithuania

Associations Between Sport Participation and Heart Rate Responses in 9–10-Year-Old Children

AUTHORS

Sarkauskiene, A.[1], Kuvaldina, O.[1], Misiunas, E.[1]

AFFILIATIONS

[1]*Klaipeda University*

Background: Participation in organised sport may improve cardiovascular fitness during childhood, but its association with heart rate responses during non-formal physical education activities remains unclear. Purpose: To examine whether participation in organised sport is associated with differences in heart rate responses during non-formal physical education sessions among 9–10-year-old children. Methods: This observational study included 2036 children aged 9–10 years participating in repeated non-formal physical education sessions using an interactive activity system. Participants were classified as sporting (≥1 year of organised sport participation) or non-sporting. Mean heart rate, maximal heart rate, and time spent in heart rate intensity zones were analysed. Linear mixed-effects models were used to account for repeated measurements within children. Results: Children participating in organised sport demonstrated significantly lower mean heart rate values during sessions than non-participating children ($F(1, 1999) = 8.79$, $p = .003$). No significant differences were observed in maximal heart rate responses between groups ($F(1, 1999) = 3.18$, $p = .075$). Children participating in organised sport spent more time in the 60–70% HRmax zone ($p < .001$), whereas non-participating children spent more time in the 70–80% HRmax ($p = .023$) and 80–90% HRmax zones ($p < .001$). No differences were observed in the 50–60% HRmax or 90–100% HRmax zones. Conclusions: Participation in organised sport was associated with more efficient cardiovascular responses during the same physical activities in children aged 9–10 years, reflected by lower mean heart rate values and greater time spent at lower exercise intensities. Implications for Policy and Practice: The findings support promoting organised sport participation and implementing age- and fitness-sensitive physical activity programmes in school and non-formal education settings. Funding: Project “Move and know” (SRF-FAV-2022-1-0096).


Ghana

Barriers and Facilitators for Physical Activity Among Black-African Older Adults in the UK

AUTHORS

Abonie, U.[1], Hunte, R.[2], Abonie, E.[2]

AFFILIATIONS

[1]*Northumbria University*
[2]*London Metropolitan University*

Background: Regular participation in physical activity represents a key lifestyle behaviour recommended for promoting healthy ageing. However, black and minority ethnic groups experience a greater burden of physical inactivity compared to their White counterparts. There is limited understanding of black and minority ethnic groups experiences of engaging in physical activity, with substantial gap in research among Black African groups in the UK. Purpose: To explore barriers and facilitators to engagement in physical activity among older Black African adults in the UK. Methods: Six community-dwelling older adults (aged 65 – 79) were recruited using purposive snowball sampling from community locations serving older Black African adults. Semi-structured interviews were conducted. Interviews were audio-recorded, transcribed, and analysed using thematic analysis with inductive approach. Results: Primary themes identified were related to: (1) Structural and Environmental Factors (e.g., finance, access, policy); (2) Perceptions About Physical Activity (e.g., health literacy, personal beliefs, social support); (3) Responsibilities (e.g., caregiving, competing priorities); and (4) Cultural Identity and Social Belonging (e.g., cultural perceptions, inclusion). The facilitators included social support, credible health information, and culturally sensitive environments. The barriers included financial hardship, low motivation, and cultural disconnect. Conclusions: Findings highlight the need for tailored, inclusive interventions to promote active ageing and reduce health disparities. Further research with larger, diverse samples is recommended. Implications for Policy and Practice: These findings should be taken into consideration when designing and implementing physical activity programs for community dwelling older Black African adults in UK. Funding: None Keywords: Physical Activity; Public Health; Older Adults; Black Africans; Health Inequalities

United States

Baseline accelerometer-measured physical activity among sixth-graders in low-income, urban Central Texas middle school communities

AUTHORS

Hunt, E.[1], Zhange, Y.[2], Swinney, K.[3], Ganzar, L.A.[4], Salvo, D.[3], Hoelscher, D.[5], Garza, C.[3], Le, S.[3], Springer, A.[5], Chen, B.[2], Karner, A.[3]

AFFILIATIONS

[1]*UTHealth*
[2]*UTHealth-Austin*
[3]*University of Texas at Austin*
[4]*Professional Data Analytics*
[5]*UTHealth- Austin*

Background: Early adolescence marks the steepest lifetime decline in physical activity (PA), yet most school-based PA research targets elementary students and the leisure domain. Device-measured baseline data on movement behaviors in low-income, urban middle school catchment areas remain scarce. Purpose: To characterize accelerometer-measured PA among sixth-grade students as the formative phase of a community-engaged study co-creating and testing PA intervention strategies. Methods: Sixth-graders (N=228) residing within the attendance zones of six middle schools in the Greater Austin area, Texas were recruited (April–May 2026). Participants wore waist-mounted accelerometers during waking hours for seven days (15-second epochs; Choi non-wear algorithm). Valid wear required ≥4 days with ≥10 hours/day, yielding an analytic sample of 169. Evenson child-specific cut points derived average moderate-to-vigorous PA (MVPA) and total PA (min/day). Sociodemographics were self- and parent-reported. Results: The analytic sample was 61% male; 87% preferred English; 31% White, 23% Hispanic, 19% multiracial. Parent education varied, with 24% reporting high school or less. Average MVPA was 39.0 (SD 19.0) min/day and average total PA was 258.0 (SD 55.7) min/day, with mean MVPA falling substantially below the 60 min/day guideline. Conclusions: Sixth-graders in these low-income, urban middle school communities averaged well below the recommended MVPA at baseline, indicating limited habitual activity during a critical developmental window. Implications for Policy and Practice: Findings underscore the need for contextually-responsive strategies spanning active transport and leisure PA in middle school communities, and anchor subsequent community co-creation and controlled testing of intervention approaches to address early-adolescent inactivity. Funding: National Institute on Minority Health and Health Disparities (NIMHD), "Co-creating and implementing contextually responsive physical activity interventions with low-income adolescents," 5R01MD019423-03.

United Kingdom

Beyond Movement Alone: Rethinking Health Implications of Purposeful Physical (In)Activity, Stillness, and Rest

AUTHORS

Hawes, O.[1], Flemons, M.[1], Rigby, B.[2], Matias, T.[3], Piggin, J.[4]

AFFILIATIONS

[1]*University of Bedfordshire*
[2]*University of Newcastle*
[3]*Federal University of Santa Catarina*
[4]*University of Loughborough*

Physical inactivity has become associated with a range of poor health outcomes. Major policy documents have urged actions to decrease physical inactivity at a population level and health promotion campaigns have urged individuals to change their behaviour at a personal level. In this research, we challenge the orthodox view, which frames physical activity as solely good and healthy, and inactivity as solely bad and unhealthy. Labelling inactivity as only unhealthy ignores underlying politics and contexts, neglecting the vital role that rest plays in sustaining both wellbeing and the capacity to care for others. To resist, we call for a holistic appreciation of stillness and rest as part of a Dynamic Continuum of Human Movement. A shift in thinking would consider the potential health benefits of stillness as being socially active, mentally active and restorative. We offer policy and practice implications, and encourage the public health community to incorporate an empathetic, inclusive and holistic appreciation of stillness into health promotion messaging.

Canada

Can Passion for Physical Activity be Reignited? The Role of Emotional Memories

AUTHORS

St-Cyr, J.[1], Vallerand, R.J.[1]

AFFILIATIONS

[1]*Université du Québec à Montréal*

Background: Emotional experiences associated with physical activity (PA) during childhood may shape short-term motivational processes and future engagement in PA. However, little is known about how recalling positive childhood PA memories relates to adults' emotional responses, motivational quality, and current PA-related outcomes. Purpose: This research examined the associations between positive childhood PA memories and emotions, motivational processes (i.e., harmonious and obsessive passions), well-being, attitudes towards PA, and PA behaviors across four studies. Methods: Study 1 used a cross-sectional design with physically active adults (N = 368), whereas Study 2 relied on a sample of physically inactive adults (N = 283). Study 3 employed an experimental design with inactive adults (N = 160), randomly assigning participants to recall a positive childhood PA memory or a neutral memory. Study 4 combined a longitudinal (three timepoints) and experimental design with physically active and inactive adults (N = 300). Results: Results of structural equation modeling provided support for the following model: positive emotions associated with childhood PA memory were related to harmonious and obsessive passions for PA, whereas negative emotions were only related to obsessive passion. In turn, harmonious passion was positively related to well-being, positive attitudes, and PA behaviors. Obsessive passion was only positively related to PA behaviors. This model was supported in all studies using various designs. Conclusions: Positive childhood PA memories appear to play a meaningful role in shaping adults' emotional and motivational experiences related to PA. These findings suggest that such memories may influence adults' level of PA and the quality of their engagement in PA. Practical Implications: Interventions that encourage the recall of positive childhood PA experiences may be a promising strategy to promote motivation for PA. Targeting positive emotions and harmonious engagement could support PA participation and well-being throughout one's life. Funding: SSHRC (752-2024-1226) and Sport Canada (862-2024-0018) supported this research.

United Kingdom

Can physical activity impact the HRQoL and personal development of young people, alternatively educated?

AUTHORS

Horner, L.[1], Azevedo, L.[2], Haines, M.[3]

AFFILIATIONS

[1]*The University of Huddersfield*
[2]*Sheffield Hallam University*
[3]*University of Huddersfield*

Adolescence is a time of significant physical, psychological, and social change. Combined with decreasing physical activity (PA), this can contribute to poor health-related quality of life (HRQoL) and deficits in personal development (PD). It is crucial, therefore, to focus research on young people (YP) at greater risk, including YP in alternative education provision (AP) who are exposed to adverse life experiences that can exacerbate poor HRQoL and restrict PD. A mixed-methods study explored the impact of a 7-month intervention mainly comprising coaching in Tchoukball and badminton on the HRQoL and PD of YP attending a school-based AP in the North of England, UK. HRQoL data were collected via KIDSCREEN-52 at baseline, post-intervention, and follow-up. The 5Cs model of Positive Youth Development (PYD) – Competence, Confidence, Connection, Character, and Caring framed the collection of qualitative data exploring participants' experiences. Face-to-face individual interviews were conducted post-intervention and at a follow-up point. Additionally, self-reported PA levels and intervention adherence data, via attendance records, were collected. The quantitative findings revealed increases in mean total HRQoL and in nine of the ten HRQoL dimensions from baseline to follow-up. However, only three dimensions - Physical Well-being, Psychological Well-being, and Social Support and Peers increased at every time point. Additionally, the percentage of YP classified as Active increased from 0% to 11%. Adherence data showed the intervention was well accepted by all YP. The qualitative findings indicated improvements in all 5Cs; however, comments regarding Caring were limited. Synthesis of the quantitative and qualitative data revealed four overarching findings: i) the importance of relationships and connectedness, ii) Sport choice, routine, and consistency are vital facilitators for change, iii) Growth in self-confidence, and iv) Transformations in behaviour and attitude. Collectively, the findings indicate that the PA intervention improved the young people's overall HRQoL and personal development.

United Kingdom

Challenges to sustaining and growing global bike buses to increase active travel to schools

AUTHORS

O'Hare, K.[1], Ferguson, N.[1], Roberts, J.[1], Harrington, D.[1]

AFFILIATIONS

[1]*University of Strathclyde*

Background: Bike buses, an organised group of children cycling to school on a set route accompanied by responsible adults, have emerged globally as an active travel intervention. Purpose: To identify challenges and opportunities to sustainability and growth of bike buses. Methods: Seventeen semi-structured interviews were conducted and analysed with those supporting or running bike buses in seven countries. Results: Unfunded bike buses (parent or community-organised and voluntary) face sustainability challenges due to limited time and fatigue of parent organisers, consistent participation and recruitment of new volunteers. They benefit from community engagement and personal connections between parents, fuelling momentum and growth. Unfunded bike buses can be motivated as a protest or advocacy for safer routes and sustainable communities, which may engage or deter participation. Funded bike buses (officially coordinated programmes using public funds) benefit from the employment of staff to coordinate and escort children, providing flexibility for parents increasing participation of children. Funding and official status provide stability and recognition. However, the precariousness of short-term and municipal funding challenges the sustainability. Institutionalised support may limit organisers' ability to advocate for safer routes. Other bike buses are hybrids of unfunded and funded. Here, active travel professionals, paid from public funding or commercial sponsorship, help establish a bike bus or provide advice but the bike buses are run by parents or volunteers. These bike buses benefit from some organised support yet face the challenges of the other two models. Conclusions: How bike bus are funded, organised and run could impact their ability to grow, sustain and create safer routes and sustainable communities. Policy and Practice implications: Policymakers, municipalities and funders should be aware of the diverse motivations, barriers and opportunities of bike bus operation. Bike buses highlight deficits in cycle infrastructure and the need to create sustainable communities and cities for children globally.

United States

Community-Centred Co-Creation for Relevant, Equitable, and Sustainable Digital Health Interventions

AUTHORS

Khatib, M.[1]

AFFILIATIONS

[1]*Arizona State University*

Despite the rapid expansion of digital health technologies, many interventions fail to achieve sustained adoption because they are designed without adequately incorporating community knowledge, lived experience, and the realities of implementation. To address this gap, we developed and evaluated the Design Studios for Health (DSH), an equity-centered, participatory co-creation framework that engages community members as partners throughout the digital health intervention development process. Using a mixed-methods design, we evaluated the DSH framework across 14 co-creation sessions conducted over two years involving six digital health intervention projects. Community members, researchers, clinicians, and organizational partners participated in facilitated design activities including collaborative discussions, paper prototyping, iterative feedback, and design refinement. Evaluation combined post-session surveys with qualitative data from debrief sessions, structured observations, and open-ended participant feedback to assess group cohesion, trust, collaboration, facilitator effectiveness, and willingness to engage in future research. Across projects, DSH strengthened trust, fostered meaningful collaboration, and generated actionable insights that informed intervention design and implementation. By positioning community members as co-creators rather than end users, the framework produced contextually relevant, culturally responsive solutions while reducing the disconnect between technological innovation and real-world needs. Case examples—including digital interventions addressing breast cancer screening, type 2 diabetes management, heat-related health risks, menopausal brain health, and dyslexia—illustrate how co-creation methods such as paper prototyping, Wizard-of-Oz testing, hackathons, and crowdsourcing can be strategically applied throughout the intervention development lifecycle. These findings suggest that successful digital health innovation depends not only on technological sophistication but also on equitable partnerships, shared decision-making, and integration within existing community and healthcare systems. The Design Studios for Health framework offers a scalable model for developing digital health interventions that are trusted, usable, and sustainable, advancing implementation science by embedding equity and community leadership throughout the design process.

Japan

Depressive symptoms and sedentary behavior patterns in older adults : Potential effect modification by physical performance

AUTHORS

Akai, K.[1], Nagai, K.[1], Komatsu, R.[1], Tsuji, S.[2], Onishi, M.[2], Shojima, K.[3], Nagasawa, Y.[3], Tamaki, K.[3], Mori, T.[3], Kusunoki, H.[3], Matsuzawa, R.[1], Wada, O.[1], Shinmura, K.[3]

AFFILIATIONS

[1]*Hyogo Medical University, Department of Physical Therapy, School of Rehabilitation, Kobe, Japan*

[2]*Hyogo Medical University, Department of Orthopaedic Surgery, Nishinomiya, Japan*

[3]*Hyogo Medical University, Department of General Internal Medicine, Nishinomiya, Japan*

Background: Understanding factors associated with sedentary behavior patterns among older adults, particularly psychological and physical factors, is important for informing targeted public health strategies. Purpose: This study examined the associations between depressive symptoms and sedentary behavior patterns among community-dwelling older adults and explored whether these associations were modified by physical performance. Methods: This cross-sectional study included 551 community-dwelling older adults (mean age: 77.2 years). Depressive symptoms were assessed using the 15-item Geriatric Depression Scale (GDS-15). Sedentary behavior was objectively measured using a triaxial accelerometer (ActiGraph wGT3X-BT). Three indicators were derived: total sedentary time, prolonged sedentary bouts (≥30 min), and sedentary breaks. Physical performance was evaluated using the Timed Up and Go (TUG) test. Multiple linear regression analyses examined associations between depressive symptoms and sedentary behavior patterns and tested effect modification by including an interaction term between depressive symptoms and TUG. Exploratory stratified analyses were conducted across tertiles of TUG. Results: In multivariable regression analyses, no significant associations were observed between depressive symptoms and sedentary behavior indicators overall. The interaction between depressive symptoms and TUG was not statistically significant for any indicator; however, it showed a trend toward significance for prolonged sedentary bouts (B=0.168; 95% CI: −0.010 to 0.346; p=0.064). In exploratory stratified analyses, depressive symptoms were associated with prolonged sedentary bouts only in the lowest physical performance group (TUG >7.23 s; B=0.750; 95% CI: 0.024 to 1.477; p=0.043). Conclusions: Depressive symptoms were not associated with sedentary behavior patterns among community-dwelling older adults overall; however, an association with prolonged sedentary bouts was observed only among those with lower physical performance, suggesting potential effect modification by physical performance. Implications for Policy and Practice: These findings highlight the potential importance of considering both psychological and physical aspects when addressing sedentary behavior among older adults, particularly those with depressive symptoms and lower physical performance.

Saudi Arabia

Digital Surveillance of Physical Activity and Enrichment Among Middle School Students in Saudi Arabia

AUTHORS

Aldosari, M.[1], Dryer, G.[2]

AFFILIATIONS

[1]*King Saud Univesity*
[2]*miMove*

Background Digital ecological momentary assessment (EMA) and smartphone-based monitoring have emerged as effective approaches for measuring physical activity in real-world settings. Although previous studies support their feasibility, most have focused on physical activity volume and compliance, with limited attention to enjoyment, motivation, perceived barriers, and enrichment activities. Evidence from large-scale school-based studies in the Middle East also remains limited. Purpose To synthesise current evidence on digital monitoring of physical activity and enrichment and use these findings to inform the development of a large-scale digital surveillance system for middle school students in Saudi Arabia using the miMove platform. Methods A rapid review of published literature identified studies using EMA, smartphone applications, and digital monitoring to assess physical activity among children and adolescents. Findings informed the design of a proposed surveillance framework involving approximately 3,000 students aged 10–14 years from up to ten middle schools. The miMove platform will collect longitudinal data on physical activity, sport participation, enrichment activities, enjoyment, motivation, emotions, and perceived barriers. Results The review found consistent evidence supporting smartphone-based monitoring as a feasible and acceptable method for collecting longitudinal behavioural data. Most studies focused on physical activity participation, whereas relatively few assessed psychosocial determinants such as enjoyment and motivation, and almost none integrated enrichment activities within the same monitoring framework. Evidence from Middle Eastern school populations was also limited. Conclusions Current evidence supports the use of digital surveillance for monitoring physical activity while highlighting important gaps in behavioural and enrichment outcomes. The proposed miMove framework addresses these gaps by integrating physical activity, sport participation, enrichment activities, and psychosocial determinants within a scalable digital surveillance system. This approach has the potential to strengthen school health surveillance and support evidence-informed policy aligned with Saudi Vision 2030.

Brazil

Domain-specific physical activity and dementia risk: a systematic review and meta-analysis with 5 million participants

AUTHORS

Feter, N.[1], Iso-Markku, P.[2], Markarian, T.[3], Luong, D.M.[3], Gunnink, J.[3], Schröder, N.[4], Caputo, E.[5], Feter, J.[4], Nanda, A.[3], Hourihan, S.[3], da Silva, G.S.[6], Bumaguin, D.B.[7], Klimentidis, Y.C.[8], Alexander, G.E.[9], Hallal, P.C.[10], Umpierre, D.[11], Rombaldi, A.J.[12], Raichlen, D.[13]

AFFILIATIONS

[1]*UFRGS*

[2]*Institute for Molecular Medicine Finland (FIMM), HiLIFE, University of Helsinki, Helsinki, Finland; HUS Diagnostic Center, Clinical Physiology and Nuclear Medicine, University of Helsinki and Helsinki University Hospital, Helsinki, Finland*

[3]*Human and Evolutionary Biology Section, Department of Biological Sciences, University of Southern California, CA, USA*

[4]*Postgraduate Program in Epidemiology, School of Medicine, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil; Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil*

[5]*Center for Evidence Synthesis in Health, School of Public Health, Brown University, RI, USA*

[6]*Postgraduate Program in Physical Education, Federal University of Pelotas, Rio Grande do Sul, Brazil*

[7]*Postgraduate Program in Health Sciences – Cardiology, Fundação Universitária de Cardiologia, Porto Alegre, Brazil*

[8]*Department of Epidemiology and Biostatistics, University of Arizona, Tucson, AZ,*

[9]*BIO5 Institute, University of Arizona, Tucson, AZ, USA; Evelyn F. McKnight Brain Institute, University of Arizona, Tucson, AZ, USA; Department of Psychiatry, University of Arizona, Tucson, AZ, USA; Neuroscience Graduate Interdisciplinary Program, University of Arizona, Tucson, AZ, USA; Physiological Sciences Graduate Interdisciplinary Program, University of Arizona, Tucson AZ, USA; Arizona Alzheimer's Consortium, Phoenix AZ, USA; Department of Psychology, University of Arizona, Tucson, AZ, USA*

[10]*Department of Health and Kinesiology, University of Illinois Urbana-Champaign, Urbana-Champaign, IL, USA*

[11]*Postgraduate Program in Health Sciences: Cardiology and Cardiovascular Sciences, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil; Postgraduate Program in Epidemiology, School of Medicine, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil*

[12]*Postgraduate Program in Physical Education, Federal University of Pelotas, Rio Grande do Sul, Brazil; Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil*

[13]*Human and Evolutionary Biology Section, Department of Biological Sciences, University of Southern California, CA, USA; Department of Anthropology, University of Southern California, CA, USA*

BACKGROUND Evidence indicates that the health effects of physical activity vary by domain (e.g., leisure vs. occupational), but whether these domain-specific patterns extend to dementia risk remains unclear. PURPOSE To conduct a systematic review and meta-analysis to examine the association between domain-specific physical activity and the risk of all-cause dementia. METHODS We searched CINAHL, PsycInfo, Scopus, PubMed, Web of Science, and SPORTDiscus for studies published from 2021 to Sept 3, 2025. We also included 58 studies from previous meta-analysis that comprised publications from inception to Oct 2021. Eligible studies used self-reported or device-based measures of physical activity. Outcomes were all-cause dementia. We used multilevel random-effects meta-analyses to estimate RR and 95% CI. Study quality and publication bias were assessed. RESULTS The search identified 13,822 studies, from which 22 were eligible after full-text screening. We included 80 studies comprising 5,013,910 middle-aged and older adults (age range 39.2–93 years). Over a median follow-up of 8.1 years (IQR 5.0–18.7), 118,578 all-cause dementia cases were documented. Association between physical activity and the all-cause dementia risk varied by domain. Leisure-time (21 studies, RR 0.84, 95% CI 0.79–0.89; I2=81.1%) and household physical activity (1 study, 0.84, 0.74–0.97) were associated with lower dementia risk, whereas occupational (6 studies, 1.18, 1.01–1.36; I2=85.2%; I2=NA) and commuting activity (2 studies, 1.08, 1.03–1.14; I2=0.0%) were associated with higher risk. Dose–response analyses showed non-linear, opposing associations for leisure and occupational physical activity. Insufficient data precluded dose–response analyses for other domains. Results were robust across sensitivity analyses. CONCLUSIONS The association between physical activity and the risk of all-cause dementia is domain-specific. IMPLICATIONS FOR POLICY AND PRACTICE Public health strategies should prioritize leisure-time physical activity for dementia prevention and consider mitigation strategies in occupational settings. The role of household and commuting activity requires further examination.

United States

Effects of a mind-body intervention on physical activity and emotional wellbeing among rural Black adults

AUTHORS

Mama, S.[1], McNeill, L.[1], Cohen, L.[1], Li, Y.[1]

AFFILIATIONS

[1]*The University of Texas MD Anderson Cancer Center*

Background: Harmony & Health (HH) is a yoga-based intervention that integrates movement with spirituality to improve sitting, physical activity (PA), and emotional wellbeing (EWB) among Black adults. Purpose: This 2-arm randomized controlled pilot study explored the effects of HH on sitting time, leisure-time PA, and EWB among rural Black adults. Methods: Black adults (N=50) from two rural communities who were not meeting PA recommendations (<150 minutes/week of PA) were randomized to attend mind-body (intervention n=25) or health education (attention control n=25) sessions twice a week for 8 weeks. Participants completed questionnaires to assess sitting time, moderate-to-vigorous PA (MVPA), and EWB (stress, depressive symptoms, anxiety) at baseline and week 9 (post-intervention). Paired sample t-tests were used to explore changes in sitting time, PA, and EWB from baseline to week 9 by group. Results: Participants were mostly (84.0%) women (M age=55.3±14.3 years, M BMI=36.6±8.1 kg/m^2). Across groups, participants reported statistically significant decreases in sitting time (Δ=-1.6 hrs/d, p=.015) and increases in MVPA (Δ=166.1 min/wk, p<.001). Intervention participants reported decreases in sitting (Δ=-0.9 hrs/d, d=-0.2), increases in MVPA (Δ=226.0 min/wk, d=0.8), decreases in stress (Δ=-2.4, d=-0.4) and depressive symptoms (Δ=-2.5, d=-0.3), and increases in anxiety (Δ=0.4, d=0.1). In comparison, control participants reported decreases in sitting (Δ=2.3 hrs/d, d=-0.6) and increases in MVPA (Δ=103.4 min/wk, d=0.6), stress (Δ=1.7, d=0.2), depressive symptoms (Δ=2.5, d=0.6), and anxiety (Δ=2.9, d=0.4). Conclusions: Overall, HH led to improvements in sitting time and PA, and participants in the intervention group reported greater improvements in PA and EWB. Findings highlight the importance of acknowledging and addressing EWB to promote PA among Black adults residing in rural communities. Implications for Policy and Practice: Supporting EWB and PA may improve whole person health and reduce cancer risk and health disparities among rural and Black adults. Funding: MD Anderson Cancer Center Duncan Family Institute

Mexico

Effects of blood flow restriction training on sarcopenia variables in older female

AUTHORS

Espinosa-Méndez, C.M.[1], Flores-Moreno, P.J.[2], Reyes-Espejel, I.[3], Ortega-González, J.A.[3]

AFFILIATIONS

[1]*Meritorius University Autonomus of Puebla*

[2]*University of Colima, Faculty of Educational Science*

[3]*Meritorius Autonomous University of Puebla*

Background: Sarcopenia is a critical health problem in old age. High-intensity training is the standard against sarcopenia, but its applicability is limited in older adults. Purpose: To evaluate the effect of strength training with partial blood flow restriction (PBFR) on factors associated with sarcopenia in older Mexican women. Methods: A quasi-experimental, pre-post, analytical, and longitudinal study was conducted with 16 participants (70.87±5.47 years). The protocol consisted of 12 weeks of lower limb strength training with PBFR. Muscle mass index, handgrip strength (dynamometry), functionality (TUG), and specific strength (Chair Stand) were measured. Results: Significant statistical differences were found in right-hand grip strength ($p < 0.05$) and specific strength ($p < 0.05$), with no changes in muscle mass ($p \geq 0.05$) Conclusions: Training with low loads (20%-50%) and PBFR is an effective strategy for improving general and specific strength (which leads to better functionality), key components in the management of sarcopenia. Implications for Practice: These findings allow for the design of specific intervention programs for populations with low tolerance to high loads. PBFR emerges as a safe and effective alternative for muscle strengthening and the preservation of functional autonomy in older adults.

United Kingdom

Effects of physical activity calorie-equivalent (PACE) labelling on hot beverage vending machine transactions: stepped-wedge RCT

AUTHORS

Daley, A.[1], Graham, H.[2], Wang, Y.[3], Bleich, S.[4], Jebb, S.[5], Roberto, C.[6], Martin, J.[3], Hemming, K.[3]

AFFILIATIONS

[1]*Loughborough University*
[2]*Cardiff University*
[3]*University of Birmingham*
[4]*Harvard University*
[5]*University of Oxford*
[6]*University of Pennsylvania*

Background Interventions to reduce overconsumption of energy are a key strategy to reduce obesity rates, and nutrition labels in out-of-home settings may be one way to achieve this. Physical activity calorie equivalent (PACE) labelling, which shows the public how many minutes of physical activity is equivalent to the energy/calories in food/beverages may be a simple, low-cost intervention for reducing consumption in the population. Purpose To assess the effects of PACE labelling on consumers choice of hot beverages (e.g. cappuccino, hot chocolate & americano) from vending machines, compared to no labelling. Methods The study took place on a large university campus using a stepped-wedge cluster randomised trial design. Vending machines that dispensed hot beverages were randomly allocated to one of eight cluster sequences over 34 weeks and the intervention period lasted 24 weeks. The sequence dictated the duration for which buildings (clusters) displayed PACE labelling on the vending machines. Results The primary outcome was average number of calories per hot beverage transaction over the intervention. Based on 377,589 transactions from 39 vending machines in 25 buildings, PACE labelling did not significantly reduce absolute average calories per transaction (-1.27, 95% CI: -4.38 to 1.85, p=0.43). The impact of duration of exposure to the intervention was assessed in exploratory analyses. Mean reduction in calories per transaction after one week of PACE labelling was -0.47 (95% CI: -4.40 to 3.46), reducing to -22.2 (95% CI: -36.25 to -8.08) at intervention end. Conclusions: There was no evidence PACE labelling reduced absolute average number of calories per hot beverage transaction. However, average calories per transaction reduced significantly the longer it was implemented. Implications for Policy and Practice PACE labelling may be a useful intervention that contributes to reducing calorie consumption over time, but further research is required. Funding National Institute for Health and Care Research (NIHR)

United States

Examining the Breadth of Active Travel Engagement: Reasons, Locations, and Seasonality Among Rural University Employees

AUTHORS

Scruggs, P.[1]

AFFILIATIONS

[1]*University of Idaho*

BACKGROUND Active Travel (AT) has traditionally focused on commuting, transport, or leisure-related walking and cycling and has expanded to include a broader range of travel modes and degrees of motorized assistance. However, AT literature lacks a holistic framework for understanding the breadth of AT engagement, including reasons for and locations of AT. PURPOSE To examine AT engagement in relation to the reasons for and locations of AT and to assess patterns across seasons and AT engagement levels. METHODS A repeated cross-sectional design was employed. Participants (N=510; 61% female; 74% aged 30-59 years) from a rural inland northwestern U.S. university completed a Qualtrics survey (response rate=31%) in winter, spring, summer, and fall. Survey items assessed AT engagement (modified IPAQ), reasons, and locations. Active travelers were categorized as low, moderate, or high based on weekly AT minutes. Kruskal-Wallis H tests ($p<0.05$) with Dunn post hoc tests examined differences in the number of AT reasons and locations by AT level and season. RESULTS The number of AT reasons and locations did not differ by season. Differences were observed across AT levels, with high active travelers reporting a greater number of AT reasons and locations than both low and moderate active travelers. Across seasons, the most common reasons for AT were leisure, commute, and transport, and the most common locations were the workplace and neighborhood. Sport/fitness, adventure-related reasons, and natural area locations were more pronounced among high active travelers. CONCLUSION The breadth of AT engagement is associated with higher AT levels but remains stable across seasons, with higher AT engagement reflecting more diverse participation patterns. IMPLICATIONS FOR POLICY AND PRACTICE A holistic framework capturing the breadth of AT engagement may inform policies and interventions by recognizing that higher AT levels are associated with more diverse reasons for and locations of AT participation.

Australia

Exercise-based interventions for smoking cessation: a systematic review and meta-analysis.

AUTHORS

Singh, B.[1], Petersen, J.[1], Miatke, A.[1], Dumuid, D.[1], Szeto, K.[1], Dankiw, K.[1], Mellow, M.[1], Jayatheertha Vaikar, S.[1], Eglitis, E.[1], Zhou, M.[1], Curtis, R.[1], Simpson, C.[1], Hassan, J.[1], Maher, C.[1]

AFFILIATIONS

[1]*Adelaide University*

Background: Tobacco smoking and e-cigarette use remain major global public health challenges, with current cessation strategies often limited by poor adherence and modest effectiveness. Purpose: To synthesise evidence on the effects of single-bout and long-term exercise interventions on smoking and vaping cessation, cravings, withdrawal symptoms, and mood in adults. Methods: Eleven electronic databases were searched. Eligible studies were randomised controlled trials (RCTs) evaluating exercise interventions in adults reporting smoking- or vaping-related outcomes. Outcomes included continuous and point prevalence abstinence, cigarette consumption, and cravings. Random-effects meta-analyses and subgroup analyses were conducted. Results: Fifty-nine RCTs (n=9,083) were included: 43 exercise training studies (n=8,548) and 16 single-bout studies (n=535). Exercise training increased continuous abstinence (Risk Ratio [RR]=1.15; 95% CI: 1.01, 1.32; p=0.04; 23 RCTs; n=6,643) and seven-day point prevalence abstinence (RR=1.21; 95% CI: 1.03, 1.43; p=0.02; 18 RCTs; n=4,455), and reduced cigarettes/day (mean difference=−2.12; 95% CI: −3.30, −0.93). Single-bout exercise reduced acute cravings immediately and up to 30 minutes post-exercise (SMD range = −0.52, −0.88) but not longer-term cravings. Aerobic exercise improved continuous abstinence in training studies, while higher-intensity bouts produced greater craving reductions in single-bout studies. Evidence for resistance training, yoga, and other non-aerobic modalities was more limited but suggested potential benefits for cravings and smoking outcomes, although data were insufficient for modality-specific pooled estimates. No trials assessed vaping cessation outcomes. Conclusions: Exercise interventions were associated with modest improvements in smoking cessation and reductions in cigarette consumption, and single-bout exercise produced short-term suppression of cravings (up to ~30 minutes). Evidence for non-aerobic modalities was limited, and no trials assessed vaping cessation outcomes, highlighting key gaps for future research. Implications for Policy and Practice: Exercise can be incorporated as a low-risk, scalable adjunct to existing smoking cessation supports (e.g., brief advice, quit services, and pharmacotherapy), including as an acute craving-management strategy.

Canada

Exploring perceptions of falls and fall prevention programs among older adults in New Brunswick

AUTHORS

Kent, D.[1], MacLean, N.[2], Davies, A.[2], Louis, R.[2], McCloskey, R.[3]

AFFILIATIONS

[1]*Loch Lomond Villa*

[2]*Trauma NB*

[3]*Department of Nursing & Health Sciences, University of New Brunswick*

Background: Falls among older adults is a public health concern. 20-30% of older adults experience one or more falls per year, which can significantly reduce mobility and independence. Approximately one-third of older adults who are hospitalized due to a fall are admitted to long-term care homes (LTCH) in Canada. Purpose: To assess older adults' knowledge of falls and falls prevention, and their willingness to participate in a falls prevention program in New Brunswick (NB). Methods: Mixed-method descriptive cross-sectional study. The study included older adults (aged ≥65) at a LTCH in NB. Participants were grouped into three categories: community-dwelling older adults, substitute decision-makers of LTCH residents with a Cognitive Performance Scale (CPS) score ≥3, and LTCH residents with a CPS score ≤2. Data was collected from June to August 2024 via surveys, with options for phone, email, or in-person responses. Descriptive statistics were used for analysis. Results: Most participants (n=202) were female (n=154, 76.2%) with an average age of 79.7. Participants completed fall-risk screening questionnaire, and 88.0% of respondents were at risk of falling. The majority of participants (92.1%) indicated they knew why people fall, and the majority (91.6%) could provide basic examples. Most (70.7%) community-dwelling participants and LTCH residents reported wanting to learn more about preventing falls. Fewer substitute decision-makers (45.5%) thought their LTCH resident wanted to learn about falls prevention. A majority (62.4%) of participants reported interest in a group-based fall-prevention program. Some participants (54.1%) indicated they would not participate due to fear of bullying, beliefs that falls cannot be prevented or would not occur, feelings of futility, mental health concerns, discomfort with group-based classes, and transportation barriers. Conclusion: Future fall prevention programs should address concerns and provide an accessible, safe space and individual options. Program should emphasize the relevance of fall prevention education for all older adults.

Canada

Factors Influencing Aging Adults' Participation in Tele-Exercise: A Qualitative Study of a Community-Based Fall Prevention

AUTHORS

Fuentes Diaz, M.F.[1], Gaudry, A.[2], Sibley, K.[3], Bouchard, D.[2]

AFFILIATIONS

[1]*University of New Brunswick*

[2]*Cardiometabolic Exercise and Lifestyle Laboratory, Faculty of Kinesiology, University of New Brunswick, Canada*

[3]*College of Community and Global Health, University of Manitoba; George & Fay Yee Centre for Healthcare Innovation, University of Manitoba, Canada*

Background: Tele-exercise —online exercise programs that can be done from home— increases opportunities for year-round physical activity and may improve fall prevention outcomes. Moreover, tele-exercise supports can help overcome common barriers to in-person exercise. However, uptake is inconsistent due to factors such as technology acceptance, program characteristics, among others, that are still not well understood. Objectives: To identify factors influencing participation in tele-exercise within a community-based fall prevention program (Zoomers in Balance), guided by the Senior Technology Acceptance Model (STAM) and the Consolidated Framework for Implementation Research (CFIR). Methods: Semi-structured interviews, based on the STAM and the CFIR, were conducted with key informants (participants, leaders, community partners, and staff) of Zoomers in Balance. Interviews were transcribed verbatim and analyzed by two independent coders; first coded inductively and then deductively with the frameworks. Conflicts were resolved by consensus or a third reviewer. Results: Twenty individuals participated in this study (nine participants and five leaders aged between 50-83 years, 95% female; one community partner and five staff members). Pertinent to STAM, "gerontechnology self-efficacy" was the most common factor; previous experience supported confidence, but not having the necessary skills to join classes was a common barrier. Other important constructs were "social relationships," "physical functioning," and "attitude to life and satisfaction." In relation to CFIR, "individuals" was the most common domain identified. Capable and supportive staff and leaders created a positive experience, but perceived gaps in leaders' capability and confidence limited participation. Other important domains were "innovation," "inner setting," and "process". Discussion: Both technology acceptance and program implementation factors are important in the adoption and participation in tele-exercise programs for aging adults. Systematically developing individual and organizational strategies is the next step to increase the uptake of tele-exercise programs for aging adults.

Norway

Factors influencing physical activity maintenance

AUTHORS

Dyrstad, S.M.[1], Borgstrøm, H.A.[2], Ree, A.G.[3], Mykletun, M.[4], Diaz de Leon, I.[5]

AFFILIATIONS

[1]*University of Stavanger*

[2]*Department of Education and Sport Science*

[3]*Occupational Health Service, Municipality of Stavanger*

[4]*Occupational Health Service, Municipality of Stavanger, Norway*

[5]*Department of Education and Sport Science, University of Stavanger*

Background: To reduce health-related work absence, the Municipality of Stavanger offer a 10-week program designed to increase employees' physical activity. To improve the quality of such workplace-based PA interventions, the purpose of the study was to identify key factors critical for participants' continuation of PA. Methods: A total of 22 employees participated in a structured 10-week PA intervention. At the end of the intervention, they answered a questionnaire to identify factors they considered important for continuing PA. Eight months post-intervention, six participants took part in individual follow-up interviews exploring factors they experienced as relevant for maintaining PA. The results from the survey and the interviews were compared to identify similarities. Results: Two factors were highlighted as important for maintaining PA, both at the end of the intervention period and eight months later. The first was the development and preservation of intrinsic motivation for PA. Feelings of joy, competence, confidence and social connection were mentioned as important for intrinsic motivation. The second factor was developing daily routines for being more physically active, through commitment and planning. Commitments to others created a sense of responsibility and continuity, while some required a clear plan to integrate PA into a busy day by scheduling time and preparing equipment. This reduced uncertainty, increased predictability, and made the activity a regular part of the day rather than a spontaneous choice. Conclusions: Two factors consistently supported maintenance of PA at both immediate post intervention and eight-month follow-up: (1) the development and preservation of intrinsic motivation—anchored in enjoyment, competence, confidence, and social connection—and (2) the establishment of daily routines that supported increased PA. Implications for Policy and Practice: PA interventions should raise participants' awareness of the importance of enjoyment, social connections, commitment and planning to maintain PA over time. Funding: Municipality of Stavanger and University of Stavanger.

Sweden

Fitness Improvements and Achievement of Recommended Physical Activity Levels One Year After Total Hip Arthroplasty

AUTHORS

Godhe, M.[1], Andersson, E.[2], Stålman, A.[3], Nilsson, J.[2], Godhe, M.[2]

AFFILIATIONS

[1]*The Swedish School of Sport and Health Sciences*
[2]*The Swedish School of Sport and Health*
[3]*Karolinska Institute*

Background: Total hip arthroplasty (THA) effectively alleviates pain and improves quality of life in patients with severe hip osteoarthritis (OA). However, comprehensive longitudinal data regarding physical function and objectively measured physical activity patterns following THA are limited. Methods: Seventy-eight OA patients (mean age 73.7 ± 4.2 years, 81% women) scheduled for THA underwent comprehensive physical fitness testing and accelerometry-based physical activity monitoring. Assessments were conducted at two preoperative time points and at 4-month (n = 57) and 1-year postoperative follow-up (n = 48). The test battery included measures of muscle strength, motor fitness, and cardiorespiratory fitness. Physical activity was objectively measured using hip-worn triaxial accelerometers. Self-reported Hip disability and Osteoarthritis Outcome Score (HOOS) were collected pre- and post-operatively. Results: Good to excellent test-retest reliability was demonstrated across 23 of 24 fitness parameters. At 1-year post-op, significant improvements were observed in moderate-to vigorous-physical activity (+63%) and daily step count, from 6004 to 7558 steps/day (+26%). Functional fitness improved in most test parameters, such as walking distance (Six-Minute Walk Test: +16%, and Timed Up and Go: -29%), trunk endurance-strength (+71-82%), shoulder-press (+32%), leg strength tests (+13-42%), 4m max walking-speed (+42%), Mesured VO_2peak demonstrated a modest but significant improvement from 22.7 to 23.6 mL/kg/min (+4%) one year postoperatively. The self-reported composite HOOS score steadily increased from the pre-operative baseline of 40.3 to 82.6 at four months post-operation, with further improvement at one-year follow-up to 88.6. Conclusions: This study revealed low physical fitness and activity levels in patients with severe hip osteoarthritis before surgery, with marked improvements in physical fitness and activity measured one year after. The high reliability of the physical fitness test battery supports its usefulness for both research and clinical practice. These findings contribute to the existing evidence on simple, field-based fitness tests for patients with hip osteoarthritis, while also offering methodological insights

United States

From Motivation to Movement: How Perceived Overweight Shapes Adolescent Physical Activity

AUTHORS

Kpene, G.[1], Fewu, E.[2], Sarbah, R.[1], Bruno, P.N.[1], Tassitano, R.M.[1], Tenorio, C.M.[1]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*
[2]*Jasikan College of Education, Ghana*

Background: Prior research shows that adolescents who perceive themselves as overweight report greater weight-loss intentions but do not consistently engage in more physical activity (PA). Whether perception of overweight (POW) moderates the relationship between motivation to lose weight (MOLW) and PA remains unclear. Purpose: To analyze whether adolescents' POW moderates the association between their MOLW and PA. Methods: This study analyzed 2007–2021 Illinois YRBSS data from 21,680 high school students (grades 9–12). PA (≥60 minutes on ≥5 days/week), MOLW, and POW were coded as binary variables. Logistic regression examined associations between POW and MOLW, and between MOLW and PA, adjusting for sex, race/ethnicity, grade, and age. Moderation was assessed by stratifying the MOLW–PA association by POW status. All analyses incorporated sampling weights. Results: Overall, the prevalence of POW, MOLW and PA was 28.9%(27.9-29.9%), 46%(44.8-47.3%) and 49.3%(47.8-50.7%) respectively. Adolescents who perceived themselves as overweight had higher odds of reporting weight-loss intentions (aOR=14.52;95%CI:12.95–16.29), a pattern consistent among males (aOR=16.76; 95%CI:14.48–19.41) and females (aOR=12.98; 95%CI:10.99–15.33). Those MOLW had 24% lower odds of engaging in PA (aOR=0.76;95%CI:0.71–0.81). However, adolescents who perceived themselves as overweight and were motivated to lose weight had a higher odds of PA (aOR=1.20; 95%CI:1.01–1.44), whereas motivated adolescents who did not perceive themselves as overweight had a lower odds (aOR=0.85;95%CI:0.77–0.92). By sex, motivated males who perceived themselves as overweight had 32%% higher odds of engaging in PA (aOR=1.32; 95%CI:1.04–1.67), the association was not significant among females. Conclusion: Although MOLW does not consistently lead to PA, POW moderates this relationship, especially among males. Adolescents who perceive themselves as overweight show higher odds of converting motivation into activity. Implication for Policy and Practice: These findings suggest that interventions should address weight perception alongside motivation to promote PA and prevent obesity in adolescents.

United Kingdom

Gym experiences across the lifespan: A qualitative study on midlife and older women's physical activity

AUTHORS

Schneider, K.[1], Tinoco, A.[1], Zuest, L.[2]

AFFILIATIONS

[1]*University of the West of England*
[2]*Towson University*

Background: Despite the benefits of physical activity, midlife and older women report feeling excluded from gyms, which are often seen as hypermasculine, appearance-focused, and unwelcoming. Purpose: This qualitative study explored women's gym experiences across the lifespan using a life history approach and Life Map visualisation, with a particular focus on understanding the contexts in which women move in and out of gyms and other fitness spaces, and the role that fitness professionals play in these choices. Methods: Nine women aged 35–67 years participated in semi-structured interviews. Prior to the interview, participants completed a Life Map Exercise in which they created a personal timeline of significant positive and negative gym experiences, including surrounding circumstances and emotions. Results: Thematic narrative analysis revealed three themes: (1) When Community, Fun, and Embracing Newness are Lacking; (2) The Search for Safe Spaces; and (3) Finding Meaningful Physical Activity Against All Odds. Early experiences were shaped by weight stigma, toxic fitness and health messaging, and poor instructor support, often leading to shame, injury, or disengagement from gym-based physical activity. While some women found joy in physical activity, it typically took years of trial and growth. Conclusions: The findings highlight the non-linear trajectories and the elements that drive women towards (or away from) enjoyable and meaningful physical activity, with a particular focus on the importance of the client-trainer relationship, providing actionable changes in gym culture. Practical implications: Insights gained from this research will serve as a basis for developing inclusive physical activity spaces that take into account women's life experiences and different life stages, as well as educating fitness professionals to create more welcoming spaces for all women.

Funding: This research was funded by a Centre for Appearance Research Quality Research (QR) Competition Award 2024–25, University of the West of England (ref. USOS1004).

Spain

Health impacts of replacing short car trips with active travel across European urban areas

AUTHORS

Velazquez Cortes, D.[1], Nieuwenhuijsen, M.J.[2]

AFFILIATIONS

[1]*Barcelona Institute for Global Health*
[2]*Barcelona Institute of Global Health*

Background Insufficient physical activity is a major modifiable risk factor for non-communicable diseases and premature mortality. Shifting short car trips to active travel, such as walking and cycling, can integrate physical activity into daily life while reducing transport emissions. We quantified the potential health benefits of this substitution across the European Union urban areas. Methods We conducted a comparative risk assessment to estimate reductions in mortality and morbidity attributable to increases in transport-related physical activity. Baseline activity was derived from an individual-level microsimulation representing the 2022 EU-27 population and expressed in marginal metabolic equivalent hours per week (mMET-h/week). Country-specific distances of short car trips were converted to energy expenditure using standard intensities. Three scenarios were modelled: S1 feasible replacement, S2 50% of replacement, and S3 200% of replacement. Scenario-specific increases were distributed across individuals to generate counterfactual exposures. Dose–response functions were applied to estimate relative risks and population-attributable fractions. Outcomes included prevented deaths, morbidity and disability-adjusted life-years (DALYs), using Global Burden of Disease data, with 95% uncertainty intervals. Findings Across the EU-27, replacement of short car trips (<7 km) was estimated at 58% walking and 6% cycling in S1 (57.8 million km shifted), 29% walking and 3% cycling in S2, and 97% walking and 11% cycling in S3. Mean weekly physical activity increased by 0.12, 0.06, and 0.25 mMET-h/week, respectively. These increases corresponded to 14,563 (95% UI 12,064–17,058), 7,286 (6,035–8,535), and 28,978 (24,024–33,916) premature deaths prevented annually and 82,096 (53,733–110,358) DALYs averted. Benefits increased proportionally with scenario intensity, with the largest reductions for all-cause mortality and cardiovascular diseases. Conclusion Replacing short car trips with active travel could generate substantial health gains across Europe. Promoting active travel offers a scalable strategy to reduce chronic disease burden while delivering environmental co-benefits and supporting sustainable mobility policies.


Australia

Health Professionals' Volunteering as a Model for Community Physical Activity and Falls Prevention

AUTHORS

Strkljevic, I.[1], Sherrington, C.[2], Tiedemann, A.[2], Haynes, A.[2], S Oliveira, J.[2], S Kwok, W.[2]

AFFILIATIONS

[1]*The University of Sydney*

[2]*Institute for Musculoskeletal Health, The University of Sydney*

Background: Falls and physical inactivity significantly contribute to morbidity and loss of independence in older adults. Health professionals (HP) possess specialised skills in mobility, exercise prescription and behaviour change, yet their contribution through professional volunteering remains underexplored. Volunteering offers dual benefits: expanding community access to physical activity (PA) and falls prevention (FP) initiatives while supporting volunteers' own wellbeing and healthy ageing. Purpose: To synthesise evidence on HPs' volunteering and examine its potential as an innovative model for promoting PA and FP in community settings. Methods: A scoping review of six databases (2010–2023) identified studies reporting HPs' volunteering activities. Data were extracted on study characteristics, volunteer roles, and reported outcomes. A national survey of Australian physiotherapists (n=520) explored current volunteering patterns, motivations, and interest in future roles related to PA and FP. Results: Across 144 studies, HP volunteered in diverse settings, with doctors (51%) and nurses (28%) most represented. Activities were predominantly service provision and training (62.5%), with limited documentation of PA or FP initiatives. Volunteering consistently produced positive outcomes for volunteers and recipients, including enhanced wellbeing, social connection, and professional development. In the national survey, 50% of physiotherapists reported current volunteering, and 94% expressed interest in future roles. Strong interest was identified in PA promotion, ageing populations, and community health programs, with altruism and community responsibility as key motivators. Conclusions: HPs' volunteering is an underutilised yet promising avenue for community based PA and FP programs. Their expertise positions them ideally to lead interventions that support mobility, independence and healthy ageing. Implications for Policy and Practice: Structured volunteering pathways could expand community capacity to deliver preventive programs, particularly in underserved and remote areas with limited access to services. Integrating HP volunteering into public health and PA policy may offer a scalable, sustainable model to reduce falls and promote PA across diverse

United States

Implementing a Movement-Based SEL Program in Low-Income Preschool Settings

AUTHORS

Xie, X.[1], Kim, J.[1]

AFFILIATIONS

[1]*Missouri State University*

Background Social–emotional learning (SEL) and fundamental motor skills are critical to children's lifelong health and development, yet children from low-income families often have limited access to programs that address both. To reduce this inequity, Move for Life (MFL) was developed as a developmentally appropriate and structured curriculum that integrates physical activity and SEL within preschool settings. Guided by the CASEL framework's five core SEL competencies and skill theme development, this case study describes the design and implementation of MFL in Head Start programs serving low-income preschoolers in the United States. Program Delivery or Policy Components MFL was implemented for 10 weeks in two settings: a university motor development laboratory and a community-based Head Start center. Program delivery relied on a university–community partnership involving faculty, Head Start teachers, graduate assistants, and trained undergraduate students. Core implementation components included collaborative planning, pre-implementation training, on-site coaching, and adaptable lesson structures to accommodate site-specific constraints related to space, scheduling, and staffing. Evaluation and Impact Implementation across settings revealed contextual differences between controlled and naturalistic environments, particularly related to classroom routines, physical space, and instructional capacity. Teacher feedback and fidelity monitoring indicated that the movement-based SEL approach was feasible, engaging, and adaptable within daily Head Start operations. College student involvement further supported program delivery while contributing to workforce development in early childhood physical activity and SEL programming. Conclusions Dual-component, movement-based SEL programs can be effectively implemented in low-income preschool settings when designed for flexibility and supported by strong cross-sector partnerships. Practical Implications Policy and program planning should prioritize alignment with local context, community needs, and existing early childhood education policies. Sustainable university–community partnerships are strengthened when programs integrate well within established routines and expectations. Scalable, low-cost implementation requires intentional use of resources, strategic partnerships, and workforce training models that support adaptability in real-life settings.

United States

Kickoff For Children: Exploring Equitable Recreational Programming in Head Start: A CFIR-Guided Qualitative Study

AUTHORS

Hernandez, A.[1], Hantas, R.[2], Alkakooz, A.[2], Soria, I.[2], Hassan, U.[2], Wilson, K.[3], Schulke, M.[4], Poulos, A.[2], Webber, H.[5]

AFFILIATIONS

[1]*Arizona State University*

[2]*Arizona State University - College of Health Solutions*

[3]*University of Arizona - Cancer Center*

[4]*Southwest Autism Research and Resource Center*

[5]*Arizona State University - College of Human Evolution and Social Change*

Background: Active play and routine movement support children's cognitive, physical, behavioral, and cardiovascular health. Early childhood education (ECE) settings are influential environments for promoting physical activity. However, equitable implementation of recreational programming requires understanding contextual factors that shape practice. The Consolidated Framework for Implementation Research (CFIR) identifies barriers and facilitators influencing implementation. This study used CFIR to examine various perspectives on implementing recreational programming to increase children's movement within a Head Start program serving predominantly low-income families. Methods: Semi-structured interviews (n = 74) were conducted with administrators, teachers, staff, and parents across 17 Head Start centers in Phoenix, Arizona, USA. Interviews explored perceptions of physical activity, recreational programming, and implementation factors. Audio-recorded interviews were transcribed verbatim and analyzed using thematic analysis guided by CFIR. Results: Participants described multilevel determinants across CFIR domains. Within the inner setting, limited staff time, competing priorities, and insufficient recreational equipment constrained implementation, while organizational commitment facilitated program delivery. Within the characteristics of individuals domain, staff training and confidence were essential for providing inclusive physical activity opportunities for children with developmental delays. Within the outer setting, transportation, financial constraints, language accessibility, and community partnerships influenced family participation. Participants emphasized culturally responsive programming, family engagement, and equitable access as critical implementation considerations. Conclusions: CFIR-guided findings identified multilevel determinants that can inform tailored strategies to strengthen recreational programming and increase physical activity opportunities in Head Start settings. Implications for Policy and Practice: Sustainable physical activity promotion in ECE requires systems-level strategies that strengthen workforce capacity, organizational readiness, and community partnerships. Policies supporting inclusive programming, equitable resource allocation, and family-centered approaches may enhance access to movement opportunities for children in underserved communities.

Funding: This work was supported by the ASU School of Social Work's Doctoral Student Summer Funding Program to Advance Research and Knowledge (SSW SPARK) Seed Grant Program.

Netherlands

Large-Scale Physical Activity and Sedentary Behaviour Assessments: Rationale and Design of the ActiveLIFE Cohort Study

AUTHORS

Netten, M.[1], Schootemeijer, S.[1], Bakker, E.[1], Eijsvogels, T.[1]

AFFILIATIONS

[1]*Radboudumc*

Background: Current guidelines on physical activity (PA) and sedentary behaviour (SB) are generic and exclusively based on self-reported questionnaire data, which are known to be prone to recall bias and measurement error, and to provide inaccurate insight on the intensity, frequency and duration of activities. Hence, there is a strong need for large-scale accelerometry data collection to optimize future PA and SB guidelines. Purpose: The ActiveLIFE cohort study aims to create a comprehensive dataset of thigh- and wrist-worn accelerometry and health outcome data. Methods: ActiveLIFE is an add-on study to the 4th assessment wave of the Dutch Lifelines Cohort (Lifelines), aiming to recruit 60,000 participants between June 2025 and December 2028. Lifelines participants aged 8 years and older will be invited to wear a triaxial thigh-worn accelerometer (Axivity AX3, settings: 100 Hz, 8g) for 8 consecutive days. Furthermore, a subsample of 10% will be asked to wear both a thigh- and wrist-worn accelerometer. Accelerometry data will be combined with extensive measurements including demographics, body composition, biological samples and biomarkers, cognitive assessments, genetic data, pulmonary and physical function, and will be enriched with information on health outcomes (e.g. incident diseases and cause-specific mortality). Conclusions: The ActiveLIFE cohort study will create a comprehensive, deeply geno- and phenotyped dataset of thigh- and wrist worn accelerometry and health outcome data. Implications for policy and practice: The ActiveLIFE dataset can be used to further refine, extent and personalize contemporary guidelines on PA and SB. We will particularly focus on the development of disease-specific PA and SB recommendations for patients with chronic cardiovascular, brain and lung diseases.

Funding: This research is funded by the Dutch Heart Foundation and Brain Foundation Netherlands grantnr. 01-001-2024-0623, Lung Foundation Netherlands grantnr. 4.1.25.077, and the Dutch Ministry of Health, Welfare and Sport grantnr. 90002319.

United Kingdom

Life-Course and Sociodemographic Determinants of Active Travel: Evidence from 65,000 UK Participants

AUTHORS

Runacres, A.[1], Morris, A.[2], Rose, S.[3], Bird, W.[3], Marshall, Z.[1]

AFFILIATIONS

[1]*Manchester Metropolitan University*
[2]*Lancaster University*
[3]*Intelligent Health*

Background: Active travel is central to physical activity promotion, yet large-scale evidence on how these behaviours vary across the life course and across sociodemographic groups remains poorly understood. Purpose: To examine patterns and determinants of active and non-active travel behaviours in a large, representative sample of children and adults in the United Kingdom. Methods: Baseline survey data from Intelligent Health's Beat the Streets intervention was analysed from 65,141 participants (34,227 adults; 30,914 children) between 2023-2025. Self-reported active-travel behaviours (walking, cycling, car use, public transport, and working from home [adults only]) were assessed. Multivariable regression models estimated associations between transport modes, age, sex, socioeconomic deprivation, ethnicity, and intersectionality (number of protected characteristics), reported as incidence rate ratios (IRRs) with 95% confidence intervals. Results: Among children, older children showed higher cycling (IRR = 1.21; 95% CI: 1.08–1.36) but lower walking, car, and public transport use (IRR: 0.75-0.82) compared with younger children. Higher deprivation was associated with reduced cycling (IRR: 0.70–0.81) and increased public transport and car usage (IRR: 1.16-1.35). Ethnically diverse children had higher walking (IRR: 1.23–1.36) and lower car use relative to White children. Among adults, increasing age was associated with lower walking and public transport use (IRR: 0.41–0.68), but higher working from home (IRR: 1.27–1.98). Ethnically diverse groups showed higher walking and public transport use (IRR: 1.13–1.56), but lower car use. Intersectionality was associated with increased frequency of walking, increasing with disadvantage (IRR: 1.46-1.54). Conclusion: Active travel behaviours differ markedly across the life course and appear to be strongly shaped by socioeconomic, ethnic, and intersecting inequalities. Walking is the most equitable mode, while cycling shows persistent disparities. Implications for Policy and Practice: Equity-focused strategies, including investment in safe cycling infrastructure and reducing car dependence, are essential to remove structural barriers and enable inclusive, population-wide increases in active travel.


Netherlands

Measuring sedentary behaviour in patients with osteoarthritis: Validity and reliability of the Marshall Questionnaire

AUTHORS

Schumacher, C.[1], Vrijsen, J.[2], Jelsma, J.[3], Bouma, A.[4], Dekker, R.[5], van Dijk, M.[3], te Loo, L.[3], van Mechelen, W.[3], Zwerver, J.[6], van den Akker-Scheek, I.[2]

AFFILIATIONS

[1]*UMCG*

[2]*Department of Orthopedics, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands*

[3]*Department of Public and Occupational Health, Amsterdam UMC, location Vrije Universiteit Amsterdam, De Boelelaan 1117, Amsterdam, The Netherlands*

[4]*Department of Strategy and External Relations, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands*

[5]*Department of Rehabilitation Medicine, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands*

[6]*Sports Valley, Sports Medicine, Gelderse Vallei Hospital, Ede, The Netherlands*

Background: The Marshall Questionnaire (MSQ) aims to assess sedentary behaviour (SB) across five domains; 1) transportation, 2) working hours, 3) watching television, 4) computer use and 5) other leisure activities. Patients with lower limb osteoarthritis (OA), experience pain and functional limitations, resulting in higher SB. To limit this time and related health consequences, more insight in SB is needed. Purpose: We aimed to investigate the validity and reliability of the MSQ in patients with OA. Methods: Participants wore an accelerometer (activPALTM) for nine consecutive days and completed the MSQ. The second MSQ followed the first by seven days. Criterion validity and test-retest reliability were assessed using intraclass correlation coefficients (ICC), including 95% confidence intervals (95% CI). Results: A total of 114 participants (64.0% woman; mean age 56.5 years) participated. 57 participants completed the MSQ twice. Comparing MSQ and the activPALTM resulted in low validity (ICCs average total day 0.22, 95%CI 0.04; 0.38, weekday 0.22, 95%CI 0.4; 0.38, weekend day 0.16, 95%CI -0.01; 0.32 and transportation 0.07, 95%CI -0.07; 0.22). Comparing the first and second MSQ resulted in low to moderate reliability (ICCs average total day 0.53, 95%CI 0.31; 0.69, weekday 0.47, 95%CI 0.24; 0.65, weekend day 0.57, 95%CI 0.36; 0.72, domain one to five 0.19, 95%CI -0.08; 0.43, 0.66, 95%CI 0.48; 0.79, 0.68, 95%CI 0.52; 0.80, 0.58, 95%CI 0.38; 0.73 and 0.19, 95%CI -0.07; 0.42). Conclusions: The MSQ presents low criterion validity, potentially influenced by the textual instructions provided. Low to moderate test-retest reliability was observed, which may be affected by learning effects. Implications for Policy and Practice: Future research should explore whether validity can be enhanced by modifying the MSQ instructions and evaluate its accessibility for individuals with limited health literacy. Funding: ZonMw (grant agreement no. 555003208).

United Kingdom

Mental Well-Being and Physical Activity Outcomes from a Football-Based Youth Mentoring Programme: A Mixed-Methods Evaluation

AUTHORS

Hale, G.[1]

AFFILIATIONS

[1]*Loughborough University*

Background: Poor mental health and low physical activity among young people remain major public health concerns globally. Football Club Community Trusts (FCCTs) - charitable arms of UK professional football clubs - use the appeal of football to deliver non-stigmatising, community-based programmes for underserved groups. While group-based FCCT initiatives show promise, one-to-one football-based mentoring for young people with mental health difficulties has not yet been evaluated. Purpose: This mixed-method study evaluates Play On, a 12-week FCCT-led mentoring programme for 10-17-year-olds with mental health difficulties. The study aimed to examine whether participation was associated with changes in mental well-being, social inclusion, and attitudes toward physical activity. Methods: Two programme cohorts (September 2025; January 2026) are being evaluated using a pre-post survey design. Mental well being (WEMWBS) and social inclusion (SIS) were measured at baseline and post-programme. Open ended survey items explored participants' experiences, including perceived changes in physical activity engagement. Paired sample t tests will assess pre-post change. Qualitative responses will be analysed using conventional content analysis. Data collection for Cohort 2 is ongoing. Results: Preliminary findings from Cohort 1 (N = 25) suggest statistically significant improvements in mental well-being and social inclusion following participation. Early qualitative insights indicate perceived benefits such as increased confidence, improved emotional coping, positive mentor relationships, and greater motivation to be active. Young people valued the tailored one to one support and the non-clinical, football based environment. Conclusions: Early results indicate that Play On may offer a feasible community-based approach to supporting young people experiencing mental health difficulties, with potential to enhance well-being, social inclusion, and attitudes toward physical activity. Full results from both cohorts will be presented. Implications for Policy and Practice: Findings may offer early insights into the potential role of sports-based mentoring in complementing existing youth mental health and physical activity provision. Funding: Not applicable.

Finland

Natural Environment Features and Early Childhood Physical Activity and Sedentary Time: the SUNRISE Finland Study

AUTHORS

Luoma, U.M.[1], Luoma, U.M.[2], Engberg, E.[3], Uusitalo, K.[3], Roos, E.[4], Puhakka, S.[5], Karppinen, T.[6], Wackström, N.[3], Pyky, R.[7], Leinonen, A.M.[8], Korpelainen, R.[9], Lankila, T.[10]

AFFILIATIONS

[1]*Department of Sports and Exercise Medicine, Oulu Deaconess Institute Foundation sr.*

[2]*Department of Sports and Exercise Medicine, Oulu Deaconess Institute Foundation sr., Oulu, Finland; Research Unit of Population Health, Faculty of Medicine, University of Oulu, Oulu, Finland; Medical Research Center Oulu, Oulu University Hospital and University of Oulu, Oulu, Finland; Folkhälsan Research Center, Helsinki, Finland*

[3]*Folkhälsan Research Center, Helsinki, Finland; Faculty of Medicine, University of Helsinki, Helsinki, Finland*

[4]*Folkhälsan Research Center, Helsinki, Finland; Department of Public Health, University of Helsinki, Helsinki, Finland; Department of Food Studies, Nutrition and Dietetics, Uppsala University, Uppsala, Sweden*

[5]*Department of Sports and Exercise Medicine, Oulu Deaconess Institute Foundation sr., Oulu, Finland; Research Unit of Population Health, Faculty of Medicine, University of Oulu, Oulu, Finland; Medical Research Center Oulu, Oulu University Hospital and University of Oulu, Oulu, Finland*

[6]*University of Turku, Faculty of Education, Rauma, Finland ; Folkhälsan Research Center, Helsinki, Finland*

[7]*Department of Sports and Exercise Medicine, Oulu Deaconess Institute Foundation sr., Oulu, Finland*

[8]*Department of Sports and Exercise Medicine, Oulu Deaconess Institute Foundation sr., Oulu, Finland; Medical Research Center Oulu, Oulu University Hospital and University of Oulu, Oulu, Finland; Research Unit of Health Sciences and Technology, University of Oulu, Oulu, Finland*

[9]*Department of Sports and Exercise Medicine, Oulu Deaconess Institute Foundation sr., Oulu, Finland ; Research Unit of Population Health, Faculty of Medicine, University of Oulu, Oulu, Finland ; Medical Research Center Oulu, Oulu University Hospital and University of Oulu, Oulu, Finland*

[10]*Department of Sports and Exercise Medicine, Oulu Deaconess Institute Foundation sr., Oulu, Finland 2 The Geography Research Unit, University of Oulu, Oulu, Finland 3 Research Unit of Population Health, Faculty of Medicine, University of Oulu, Oulu, Finland 4 Medical Research Center Oulu, Oulu University Hospital and University of Oulu, Oulu, Finland*

Background: Environmental factors such as access to green and blue spaces have been linked to physical activity (PA) in older children and in adults. Little is known how objectively measured natural features of residential environment relate to PA and sedentary time in early childhood. Purpose: This study examined associations between natural landscape features and PA and sedentary time in early childhood. Methods: This cross-sectional study included 917 children aged 3–4 years from the SUNRISE Finland study. PA and sedentary time were measured with ActiGraph accelerometers over seven days. Natural environment features (forests, fields, waters, swamps) within 100, 300, 500 and 1000 meter buffers around children's homes were quantified using CORINE land cover data. Associations of environment features with light (LPA), moderate (MPA), vigorous (VPA) PA, sedentary time were analysed using linear regression. Results: According to preliminary results, natural features of the residential environment show weak associations with PA and sedentary time. Within 100 m buffer, small positive associations were observed between swamps and VPA (β=0.50, 95% CI [0.09, 0.91]), and between waters and sedentary time (β=1.952, 95% CI [0.023, 3.881]). In larger buffers, forests within 1000 m were positively associated with LPA (β=0.364, 95% CI [0.074, 0.654]) and waters were positively associated with VPA (β=0.042, 95% CI [0.010, 0.074]). Associations differed between urban and rural areas, with more significant associations in rural children, particularly for forests and swamps. Conclusion: Natural features in children's residential environments showed limited, context-dependent associations with PA and sedentary time. Forest environments within a wider home radius may support LPA and other natural features (e.g., fields or swamps) more close to home VPA. Implications for Policy and Practice Understanding how environment contributes to PA and sedentary time informs early childhood health promotion and urban planning that supports children's healthy movement behaviours. Funding Yrjö Jahnsson Foundation

Canada

Nature-based physical activity interventions for individuals with mental illnesses: a systematic review

AUTHORS

Wei, Y.[1], Hou, M.[1], Koehle, M.[1], Puterman, E.[1], Faulkner, G.[1]

AFFILIATIONS

[1]*University of British Columbia*

Background Mental illnesses, such as depression and anxiety, affect millions of individuals worldwide, leading to significant personal, social, and economic burdens. While traditional therapeutic methods, such as pharmacological treatments and cognitive-behavioural therapy, are effective, there is increasing demand for low-cost, complementary interventions such as physical activity (PA). PA and nature exposure are independently recognized for their positive relationship with mental health, but less is known about whether their combined effects are greater than those of being active in urban or indoor settings. Purpose To synthesize evidence on the effectiveness of acute and chronic nature-based PA interventions for mental health outcomes among individuals with diagnosed mental illnesses. Methods A systematic review was conducted following PRISMA guidelines. Ten databases were searched for studies up to March 2025. Inclusion criteria were restricted to studies employing a parallel-group design that: 1) included participants with diagnosed mental illnesses; 2) evaluated nature-based PA in real or simulated (such as virtual reality) environments; and 3) compared outcomes against an active control condition. Results Six studies were identified (3 acute, Total N = 77; 3 chronic, Total N = 99). Due to study heterogeneity, we performed a narrative synthesis. All acute and chronic studies favoured nature-based groups over the active control conditions. The acute studies showed greater improvements in mood, resilience, or affect, while the chronic studies demonstrated greater improvements in depressive symptoms, perceived stress, or PTSD symptoms. Conclusions Nature-based PA interventions for people with mental illnesses may provide added benefit compared to being active indoors or in urban environments. Interpretation of findings was hindered by an overall high risk of bias due to factors such as the lack of blinding and poor matching of PA dose between treatment arms. Implications for Policy and Practice Nature-based physical activity interventions could be considered when prescribing PA for mental health. Funding CIHR

United States

Pedaling Toward Health: Bridging Research and Action on Bicycling and Well-Being

AUTHORS

Schuck, L.[1]

AFFILIATIONS

[1]*Outride*

Recent reviews highlight bicycling as a powerful lever for enhancing well-being and quality of life across the lifespan—from adolescents to older adults. Yet, much of the evidence remains rooted in laboratory-based studies with narrow adult samples, limiting our understanding of bicycling's potential in real-world, community contexts. Future research must move beyond controlled environments to explore how inclusive, outdoor bicycling initiatives can promote physical, mental, and social well-being among diverse populations. Community-based organizations are key actors in this paradigm shift. They expand access to bicycling opportunities in underserved groups and enhance collective well-being through participatory programs, yet their impact remains under explored in implementation science. To bridge this gap, we have developed the Research Pool, an international collaborative network of over 90 members representing cycling organizations, educators, and researchers. This initiative exemplifies how global partnerships can drive local action, fostering equitable participation and amplifying the health benefits of physical activity through bicycling. Aligned with ISPAH's mission to translate evidence into practice, this session invites participants to engage with emerging research, share insights on bicycling and well-being, and take actionable steps to join the Research Pool. Attendees will leave with both a synthesized understanding of current evidence and concrete pathways to collaborate on scalable, community-centered bicycling interventions that advance global health through local impact.

Japan

Physical activity interventions to prevent functional decline among disaster- or conflict-displaced populations: A scoping review

AUTHORS

Moriyama, N.[1], Saito, H.[2], Masuzawa, Y.[3], Nishikawa, Y.[4], Tuerxun, G.[5], Ito, N.[6], Abe, T.[6], Tsubokura, M.[6]

AFFILIATIONS

[1]*National Institutes of Biomedical Innovation, Health and Nutrition*

[2]*Department of Internal Medicine, Soma Central Hospital*

[3]*Department of Nursing, Niigata College of Nursing*

[4]*Department of Health Informatics, Kyoto University School of Public Health*

[5]*No specific affiliation*

[6]*Department of Radiation Health Management, Fukushima Medical University School of Medicine*

Background Disasters and armed conflicts frequently force residents to evacuate or relocate, resulting in prolonged displacement. Such displacement is commonly associated with physical inactivity, which may contribute to functional decline, particularly among older adults and other vulnerable populations. However, physical activity–related interventions implemented in disaster- or conflict-displacement contexts have not been systematically synthesized from a functional health perspective. Purpose To synthesize and characterize physical activity–related interventions implemented among disaster- or conflict-displaced populations and to explore their reported functional and psychosocial outcomes, with implications for policy and practice. Methods A scoping review was conducted in accordance with the Joanna Briggs Institute methodology. A systematic literature search of MEDLINE, Scopus, and Ichushi-Web was performed in August 2025. Studies published in English or Japanese were included if they evaluated physical activity– or exercise-related interventions among disaster- or conflict-displaced populations and reported functional or psychosocial outcomes. Both intervention and relevant observational studies were considered. Results Five relevant studies were identified. Sample sizes ranged from fewer than 10 to approximately 200 participants. Most studies targeted older adults (≥65 years), while one study included adult internally displaced persons. Intervention durations ranged from several weeks to approximately six months and were primarily delivered in group-based formats, such as preventive exercise programs. Across studies, physical activity–related interventions were associated with selected favorable outcomes within the International Classification of Functioning, Disability and Health (ICF) framework, including body functions, activity levels, social participation, and subjective well-being. Conclusions Physical activity–based interventions may offer potential benefits in mitigating displacement-related functional and psychosocial decline, particularly when combined with opportunities for social participation. However, the evidence for interventions implemented during the early phases of displacement remains limited. Implications for Policy and Practice Integrating physical activity promotion and participation-enhancing programs into disaster preparedness, response, and recovery strategies may help support functional health among displaced populations.

South Africa

Pilot testing training and support on Soweto-based CHWs' Knowledge, Attitudes, Practices regarding physical activity promotion

AUTHORS

Dikgomo, K.[1], Mapukata, N.[2], Kholvadia, A.[3], Moosa, S.[4]

AFFILIATIONS

[1]*Nelson Mandela University*

[2]*Division of Public Health Medicine, University of Cape Town*

[3]*Department of Human Movement Science, Nelson Mandela University*

[4]*Department of Family Medicine and Primary Care, University of the Witwatersrand*

Scholars in South Africa have identified a need for standardised training in non-communicable diseases for community health workers (CHWs) based in primary healthcare (PHC) settings. This doctoral study examines the effect of training and subsequent support on Soweto-based CHWs' knowledge, attitudes, and early practice indicators related to physical activity (PA). To achieve this, it employed a pragmatic quasi-experimental design with a comparison group. Fifty-three CHWs (age 45.8±7.8y, experience 12±4.1y, 88.7% women, 47.4% completed high school and 9.8% completed post-matric education) received training over two sessions across 2-3 weeks. Thereafter, one of two PHC facilities was selected pragmatically and logistically as the intervention facility. The intervention facility then received 12 weeks of supervisory support, after which outcomes were assessed (with 24-week data pending). Training effects were assessed immediately post-training, while practice outcomes were assessed following 12 weeks of supervisory support. McNemar's exact test showed a significant improvement in knowledge of PA guidelines pertaining to moderate PA and muscle strengthening (p=0.002) from baseline to post-training. Guidelines for vigorous PA remained a challenge post-training only 20% identified it correctly). CHWs believed they should receive training to promote PA (100% pre- and post), that their role should include PA promotion (97% pre- and post), and that they would/do promote PA (100% pre- and post). At 12-weeks, the odds of correctly identifying guidelines after the support intervention were not significant for moderate and vigorous PA or muscle strengthening. While training aligned CHWs' knowledge and attitudes, no differences in practice were observed between supervised and unsupervised CHWs at 12 weeks, suggesting that longer or more intensive implementation support may be required to influence practice. District Health Systems may consider integrating Biokineticists to support CHW training in PA promotion. Further evidence is required to establish how training and supervision translate into sustained practice change.

Australia

Play Active national programme for children's movement behaviours in childcare services

AUTHORS

Christian, H.[1], Trost, S.G.[2], Schipperijn, J.[3], Maher, C.[4], Bauman, A.[5]

AFFILIATIONS

[1]*The University of Western Australia, Telethon Kids Institute*

[2]*School of Human Movement and Nutrition Sciences, University of Queensland, Brisbane, Queensland, Australia 4072*

[3]*Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Campusvej 55, 5230 Odense, Denmark*

[4]*Alliance for Research in Exercise, Nutrition and Activity (ARENA), Adelaide University, Adelaide, South Australia, Australia*

[5]*Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Campusvej 55, 5230 Odense, Denmark ; School of Public Health, University of Sydney, Sydney, New South Wales, Australia*

Background: Many young children do not meet the recommended three hours of daily physical activity, including 60 minutes of energetic play. Early childhood education and care (ECEC/childcare) is a key setting to intervene to improve children's movement behaviours. The Play Active programme is a scalable evidence-informed ECEC specific physical activity policy intervention that has been scaled for delivery across Australia. Program delivery/Policy components: The Play Active policy contains two key policy statements and nine age group-specific recommendations for the amount of physical activity and sedentary time children should have while attending ECEC. To support services meet the Play Active policy recommendations there are 25 recommended practices ECEC services implement. Implementation support is delivered to ECEC service directors via the Play Active website. This includes: 1) Self-assessment; 2) Policy tailoring; 3) Professional learning and 4) Membership pack and online resources. Evaluation and Impact: The real-world effectiveness of Play Active is assessed via ECEC services adoption of the 25 Play Active policy practices. Evaluation also includes changes in educator-reported and device-measured children's movement behaviours; programme sustainability; dissemination strategy effectiveness; cost- effectiveness; and detailed process evaluation. Data are collected at baseline, 6, 12, 18, 24 and 30 months. The program, prior trial results (81 ECEC services) and national baseline results (currently 285 ECEC services, 1184 educators) will be presented. Conclusions: The Play Active pragmatic cluster randomised trial had positive findings. Evaluation of the implementation, effectiveness and cost-effectiveness of Play Active's delivery at scale in the real world is vital to enable population-level impacts on young children's movement behaviours. Practical implications: Findings will provide actionable evidence to inform an Australia-wide delivery model to ensure all young Australian children have an active and healthy start to life.

Funding: Australian Medical Research Future Fund (APP2022912); W.Australian Health Promotion Foundation (Healthway; #34818).

United Kingdom

Qualitative exploration of mechanisms and contextual factors shaping how traffic restriction schemes influence school travel

AUTHORS

Alliott, O.[1], Guell, C.[2], Ogilvie, D.[1], Hadfield-Hill, S.[3], Panter, J.[1]

AFFILIATIONS

[1]*University of Cambridge*
[2]*University of Exeter*
[3]*University of Birmingham*

Background Active travel to and from school offers important health and environmental benefits, yet car use remains dominant, contributing to congestion, pollution and safety risks. Schemes restricting private motor vehicles around schools are increasingly implemented to address these issues, but evidence on how they influence school journeys across different contexts remains limited. Aim To explore the mechanisms through which traffic restriction schemes influence school travel behaviour and how impacts vary across contexts. Methods In-person walk-along and online interviews were conducted with 24 families, five teachers and four local authority representatives across three United Kingdom (UK) regions (Perth and Kinross, Haringey and Sheffield) between September 2024 and April 2025. Ethnographic observations were also undertaken. Transcripts were analysed drawing on Braun and Clarke's reflexive thematic analysis, guided by realist evaluation principles and ethnographic insights to identify context–mechanism–outcome (CMO) configurations using NVivo. Results Common CMO configurations were identified, reflecting shared experiences across participants. For example, in contexts where families previously relied on driving for the school journey, increased inconvenience acted as a mechanism encouraging shifts towards hybrid journeys or a full shift to active travel. Findings were captured within two overarching themes: (i) considering change and adapting routines, describing how families responded to schemes, and (ii) navigating challenges and building momentum, highlighting how schemes evolved in practice. Participants emphasised the potential for schemes to promote active travel, improve journey experiences and support health, while also noting unintended consequences, including displaced traffic, community resistance and access challenges for some families. Our findings illustrate how supportive infrastructure, consultation and child-focused framing shape scheme acceptability across contexts. Conclusion Traffic restriction schemes have the potential to support healthier and more sustainable school travel. However, effective and equitable implementation requires attention to local context, community engagement and integration with wider transport, health and environmental policy agendas.

Denmark

Quality school recess for school-aged students: Consensus statement

AUTHORS

Pawlowski, C.[1], Ridgers, N.D.[2], Clevenger, K.A.[3], Howie, E.K.[4], Massey, W.V.[5], McLoughlin, G.M.[6], McNamara, L.[7], Ramstetter, C.L.[8], Van Kahn, D.H.H.[9], Van Kerckhove, J.[10], Dankiw, K.A.[2], Schipperijn, J.[1]

AFFILIATIONS

[1]*University of Southern Denmark*
[2]*Adelaide University*
[3]*Utah State University*
[4]*University of Arkansas*
[5]*Oregon State University*
[6]*Temple University*
[7]*Toronto Metropolitan University*
[8]*Global Recess Alliance*
[9]*Maastricht University*
[10]*Ghent University*

Backgorund: School recess is defined as regular and intentionally scheduled breaks within the school day, available to all school-aged students, to engage in personal discretionary activities such as play, leisure activities, and rest. These breaks play an important role in the healthy growth and development of students, yet experiences of school recess are variable. Purpose: The aim of this consensus statement was to provide guidance on indicators of quality school recess for all school-aged students. Additionally, recommendations for quality school recess practice and policy, and international research priorities for quality school recess, were identified. Methods: Researchers with expertise in school recess research were identified via a literature search to receive an invitation to participate in a modified Delphi process as part of an expert panel. Eight researchers worldwide consented and participated. The process consisted of 45 three iterative surveys (February 2024 to October 2024) and a consensus panel meeting. A systematic search of reviews of evidence concerning school recess and a range of outcomes was also conducted (1990-2025). The analysis focused on the identification and operationalisation of quality indicators of school recess (minimum required agreement: 80%), recommendations for policy and practice, and priority research gaps to be addressed over the next 10 years. Results: Eight quality indicators of school recess achieved consensus: Physical outdoor environment, indoor physical environment, equipment, trained supervisors, inclusive, time, and school policy. The panel agreed that a continuum of activities should be facilitated during school recess, and students should have choice and autonomy. Conclusions: Eight indicators were identified defining the key features of quality school recess, summarised five key recommendations for policy and practice, and identified five research priorities. Implications for policy and practise: This consensus paper offers practical approaches for schools to enhance the wellbeing and development of all school-aged students.

Norway

Racial and Regional Disparities in Meeting Aerobic and Resistance Training Guidelines in Advanced Prostate Cancer

AUTHORS

Solberg, A.[1], Grydeland, M.[2], Nilsen, T.S.[3], Storås, A.H.[4], Davis, I.D.[5], Greaves, N.[6], Anderson, S.[6], Fay, A.P.[7], Chi, K.N.[8], Enting, D.[9], McDermott, R.[10], Badal, S.[11], Waihenya, C.[12], Popoola, A.[13], Lazarus, J.M.[14], Mateo, J.[15], Bjartell, A.[16], Omlin, A.[17], Odedina, F.[18], Harrison, S.[19], Ragin, C.[19], Mucci, L.[20], Russnes, K.M.[4]

AFFILIATIONS

[1]*Norwegian School Of Sport Science*

[2]*Department of Physical Performance, The Norwegian School of Sport Sciences, Oslo, Norway*

[3]*Department of Physical Performance, The Norwegian School of Sport Sciences, Oslo, Norway; Department of Sport Science and Physical Education, University of Agder, Kristiansand S, Norway*

[4]*Department of Oncology, Oslo University Hospital, Oslo, Norway*

[5]*Eastern Health Clinical School, Monash University & Eastern Health, Melbourne, Australia; Cancer Services, Eastern Health, Melbourne, Australia*

[6]*George Alleyne Chronic Disease Research Centre, The University of the West Indies, Cave Hill Campus, Barbados*

[7]*PUCRS School of Medicine; Hospital Nora Teixeira - Santa Casa de Porto Alegre*

[8]*BC Cancer; Vancouver Prostate Centre; Department of Medicine, University of British Columbia, Vancouver, Canada*

[9]*Department of Oncology, Guy's and St Thomas' NHS Foundation Trust, London, UK*

[10]*St. Vincents University Hospital & Cancer Trials, Dublin, Ireland*

[11]*Department of Basic Medical Sciences, The University of the West Indies – Mona Campus, Kingston, Jamaica*

[12]*Department of Surgery, University of Nairobi, Nairobi, Kenya*

[13]*Department of Urology, University of Ilorin; University of Ilorin Teaching Hospital, Ilorin, Nigeria; Prostate Cancer Transatlantic Consortium (CaPTC), Ilorin, Nigeria*

[14]*Department of Urology, Groote Schuur Hospital; Faculty of Health Sciences, University of Cape Town, Cape Town, South Africa*

[15]*Vall d'Hebron Institute of Oncology (VHIO), Barcelona, Spain*

[16]*Skåne University Hospital; Department of Translational Medicine (Urology), Lund University, Lund, Sweden*

[17]*Onkozentrum Zürich, Zurich, Switzerland*

[18]*Mayo Clinic Florida, Jacksonville, Florida, USA; Prostate Cancer Transatlantic Consortium (CaPTC), Jacksonville, Florida, USA*

[19]*Fox Chase Cancer Center – Temple Health, Philadelphia, Pennsylvania, USA*

[20]*Harvard T.H. Chan School of Public Health, Boston, MA, USA; On behalf of the IRONMAN investigators*

Background: Prostate cancer is a leading cause of cancer death in more than 50 countries and disproportionately affects individuals self-identifying as Black and those from low- and middle-income countries. Treatment for advanced disease causes quality of life detriments including fatigue and body composition changes, which physical activity (PA) and resistance training may mitigate; however, whether individuals engage in these behaviors is unknown. Purpose: Estimate prevalence of meeting American College of Sports Medicine PA and resistance training guidelines by race and geographic region among men with advanced prostate cancer. Methods: Participants in the international IRONMAN registry of advanced prostate cancer reported leisure-time activity at 6-, 18-, and 30-months post-enrolment. Mixed-effects logistic regression estimated odds of meeting guidelines across time by self-identified race (White, Black, Other) and geographic region (Europe, Australia, North America, Africa, Other). Results: Among 2,485 participants, 58–63% met PA guidelines and 19–23% met resistance training guidelines over follow-up. Participants self-identifying as Black had 77% lower odds of meeting PA guidelines compared to White participants (crude odds ratio [cOR] 0.23, 95% CI 0.15–0.36), and participants from Africa had 92% lower odds than those from Europe (cOR 0.08, 95% CI 0.03–0.21). Associations were similar after adjustment for sociodemographic and clinical covariates. Only 1-3% met resistance training guidelines in Africa and Other regions. Conclusions: These findings highlight groups at elevated risk of low PA engagement. Resistance training participation was markedly low, especially in African sites, implying structural and cultural barriers. Implications for Policy and Practice: Targeted strategies are needed to increase opportunities for PA and resistance training participation to reduce racial and regional disparities.

Funding: The IRONMAN Registry (NCT03151629) is principally supported by the Movember Foundation and sponsored by the Prostate Cancer Clinical Trials Consortium (PCCTC). Additional funding is provided by Amgen, Astellas, AstraZeneca, Bayer, Janssen, Merck, Novartis and Sanofi.

Canada

Role of Educators and Organizational Support in Promoting Active Play and Fms in Childcare Settings

AUTHORS

Masse, L.[1], Masse, L.C.[1], De-Jongh Gonzalez, O.[1], Buckler, E.J.[2], Wright, C.[2]

AFFILIATIONS

[1]*University of British Columbia*
[2]*University of Victoria*

Background: The childcare environment provides a critical opportunity to foster the development of fundamental movement skills (FMS) in young children through guided active play (AP). Educators are key to facilitate these experiences, while center managers can strengthen this work through supportive policies, routines, and leadership. Understanding how individual- and center-level factors shape the implementation of AP practices is key to optimizing FMS development in early learning settings. Purpose: To examine how educators' individual factors (training, self-efficacy, awareness of provincial AP standards) and center-level factors (structured schedules, frequency play installation are changed, AP champion presence, goal review frequency, implementation support) are associated with educators' reported provision of AP- and FMS-promoting practices in childcare settings. Methods: Early childhood educators (N=207; 41 years; 96% female) from 59 licensed childcare centers in British Columbia completed a cross-sectional survey on individual predictors and center-level factors. Outcomes included previous-day AP behaviors (modeling AP, outdoor minutes and sessions, total AP time, and number of FMS facilitated). Covariate-adjusted linear and logistic mixed-effects models examined associations between predictors and outcomes, accounting for clustering by center. Results: High self-efficacy (OR=4.56) and greater awareness of AP standards (OR=3.48) were significantly associated with modeling AP outdoors. High self-efficacy (OR=4.82) also predicted more FMS facilitation. Centers with staff who championed AP at least every two months (OR=19.04), conducted regular goal reviews with staff (OR=10.19), and provided strong implementation support (OR=8.62) showed markedly higher odds of FMS facilitation. Frequent champion engagement (β=0.60) and moderate-to-high implementation support (β=0.54-0.61) were also associated with increased educator-child AP time. Conclusions: Both individual and organizational supports are essential to enhance the quality and consistency of AP in childcare settings. Strengthening educators' self-efficacy alongside supportive center-level structures may foster richer environments for developing FMS and lifelong physical activity participation.

Brazil

Scale-Up Readiness for Link60+: Social Prescribing and Digital Support for Socially Vulnerable Older Women

AUTHORS

Crystine da Silva Sobrinho, A.[1], Angélica de Oliveira Gomes, G.[2], Pimenta Costa-Guarisco, L.[2], Renata da Rocha Conceição, K.[2], Cavichioli, C.[2], de Paula, L.T.[2]

AFFILIATIONS

[1]*University of Sao Paulo*

[2]*Department of Gerontology, Federal University of São Carlos, São Carlos, São Paulo, Brazil.*

Abstract Background: Social prescribing and digital support may promote physical activity, social connection, and healthy ageing, but scale-up depends on more than intervention effectiveness. Evidence is still limited on pre-implementation readiness, particularly in socially vulnerable settings where intersectoral collaboration, workforce capacity, and governance may determine sustainability. Purpose: To assess organizational and contextual readiness for scale-up of Link60+, a hybrid social prescribing and digital support intervention for socially vulnerable older women. Methods: We conducted a mixed-methods implementation study during the pre-implementation phase of Link60+ in São Carlos, Brazil. Data were extracted from a prospective implementation database documenting 14 implementation events, 10 stakeholder groups, and 186 stakeholder participations. Activities included territorial diagnosis, stakeholder engagement, partnership building, redesign workshops, planning meetings, and adaptation tracking. Data were synthesized using implementation science constructs from CFIR, RE-AIM, ISAT, ExpandNet, and FRAME, focusing on reach, adoption, contextual fit, adaptability, implementation capacity, and scale-up readiness. Results: Stakeholders from primary healthcare, social assistance, universities, local government, and community organizations were engaged. Fourteen documented adaptations indicated active tailoring to local workflows, referral pathways, communication needs, and territorial constraints. Facilitators included high perceived relevance, institutional support, existing community partnerships, and alignment with healthy ageing priorities. Barriers included bureaucratic approvals, workforce limitations, competing service demands, and fragmented intersectoral communication. Overall, findings suggested strong acceptability and initial adoption potential, but heterogeneous readiness across sectors, particularly regarding governance, referral coordination, and resources for long-term maintenance. Conclusions: Baseline implementation findings indicate favourable conditions for adoption of Link60+, but readiness for sustainable scale-up remains uneven. Implications for Policy and Practice: Prospective readiness assessment can help identify implementation bottlenecks before delivery and guide scalable social prescribing models for older adults in vulnerable settings. Funding: CAPES – Finance Code 001; FAPESP grants 2025/15251-6 and 2025/26880-4.

France

Screen use of children aged 3-11 in France: findings from the nationwide Enabee study (2022)

AUTHORS

Verdot, C.[1], El Haddad, M.[2], Motreff, Y.[3], Boudet-Berquier, J.[4], Deschamps, V.[4], Monnier-Besnard, S.[3], Richard, J.B.[2], Bernard, J.Y.[5]

AFFILIATIONS

[1]*Santé Publique France*

[2]*Data Science Division, Santé publique France, French National Public Health Agency, Saint-Maurice, France*

[3]*Enabee project Team, Non-communicable Diseases and Trauma Division, Santé publique France, French National Public Health Agency, Saint-Maurice, France*

[4]*Nutritional Epidemiology Surveillance Team, Non-communicable Diseases and Trauma Division, Santé publique France, French National Public Health Agency, Saint-Maurice, France; Université Paris Cité and Université Sorbonne Paris Nord, Inserm, INRAE, Centre for Research in Epidemiology and StatisticS (CRESS), Paris, France*

[5]*Université Paris Cité and Université Sorbonne Paris Nord, Inserm, INRAE, Centre for Research in Epidemiology and StatisticS (CRESS), Paris, France; Université de Montpellier, Inserm, Desbrest Institute of Epidemiology and Public Health (IDESP), Montpellier, France*

Background Screens are a major public health issue, given their increasing use, early exposure of children, and health consequences, particularly those related to sedentary lifestyles. It is therefore essential to monitor screen practices and measure their health effects to prevent them. Purpose This study reports screen use, including screen time, among school-aged children in France and their associated socio-demographic predictors. Methods Enabee 2022 is a nationwide cross-sectional survey on well-being and mental health of school-aged children aged 3-11 years in France. In this survey, parents (n=12,818) reported their children's uses and screen time, notably average daily screen time for different types of screens, accessibility of screens and parental controls implemented. Descriptive and bivariate analyses were conducted to determine the average screen time of children and to estimate differences according to socio-demographic predictors. Results In 2022, the average daily screen time was 1h22 [1h18-1h27] for children aged 3-5 years, 1h53 [1h49-1h56] for those aged 6-8 and 2h33 [2h29-2h38] for those aged 9-11. Average daily screen time increased steadily with age and was twice as high on non-school days compared to school days. On average, 53% of children aged 3-5 exceeded the recommended 1 hour/day; 35% of 6-8-year-olds and 55% of 9-11-year-olds exceeded 2 hours of screen time per day. Television was the predominant type of screens until the end of primary school, although nearly half of 11-year-olds had their own smartphone before entering secondary school. Children whose parents had the lowest education level had the greatest access to screens and an average daily screen time significantly higher. This difference was observed from an early age and persisted among older children. Conclusions This study highlights the prevalence of children's screen use in France and the associated sociodemographic predictors. These results will help guide educational messages and preventive actions for the French population



Canada

The relationship between objective and perceived neighbourhood walkability and their association with accelerometer-measured physical activity

AUTHORS

Frehlich, L.[1], Lang, J.J.[2], Prince Ware, S.A.[2], McCormack, G.R.[1]

AFFILIATIONS

[1]*University of Calgary*
[2]*Public Health Agency of Canada*

Background Evidence shows that certain neighbourhood characteristics (e.g., street connectivity, mixed land use, proximity to destinations, and residential population density) contribute to overall neighbourhood walkability. Neighbourhoods with higher walkability generally support higher levels of physical activity. Purpose The purpose of our study was to investigate whether perceptions of neighbourhood walkability influenced the relationship between objectively measured neighbourhood walkability and accelerometer measured moderate-to-vigorous physical activity (MVPA) and steps. Methods National data (n=1,167 females and n=1,233 males) were obtained from the Canadian Health Measures Survey. Accelerometers were used to assess daily MVPA and steps. The Physical Activity Neighbourhood Environment Scale – Built Environment Index estimated perceived walkability, while the Canadian Active Living Environments dataset provided objective walkability data. Covariate-adjusted generalized linear models (gamma with identity link) were used to estimate associations between objective and perceived walkability with MVPA and steps. Models were also stratified by sex and age group (young: 18-40 years and middle-aged: 41-64 years). A multiplicative interaction term between objective and perceived walkability was included to test for effect modification. Results Effect modification was found for the pooled male sample (MVPA: β=0.71, 95%CI: 0.15-1.27 and steps: β=120, 95%CI:38-203). After stratification, effect modification was only present in middle-aged males (MVPA: β=1.05, 95%CI: 0.40-1.71 and steps: β=133, 95%CI: 26-241). In middle-aged males, higher perceived walkability buffered against a negative association between increasing objective walkability and both daily MVPA and steps. No modification was found for females. Conclusions Age- and sex-specific interactions were found for the association between perceived and objective neighbourhood walkability and MVPA and steps in middle-aged men. Implications for Policy and Practice Urban planners should investigate how to best tailor strategies to different population groups and neighbourhood contexts to encourage physical activity, including exploring interactions between various objective and perceived neighbourhood built characteristics and context-specific physical activity.

Funding CIHR-HCRI (DA8-193073).

Norway

The weight of victory: post-career health outcomes in former elite athletes from weight-sensitive sports

AUTHORS

Mellbye, A.[1], Sundgot-Borgen, J.[2], Mathisen, T.F.[3]

AFFILIATIONS

[1]*Norwegian School of Sports Sciences*
[2]*Norwegian School of Sport Sciences*
[3]*Østfold Univeristy College and Norwegian School of Sport Sciences*

Background: The health and well-being of former elite athletes is identified as a key research area. Weight-sensitive sports, where body weight, body composition and/or figure are regarded as central to performance, present distinct challenges and may increase exposure to low energy availability and disordered eating. However, evidence on post-career physical and mental health outcomes, and the role of transition-related factors, remains limited. Purpose: To assess physical and mental health outcomes among former high-level and elite athletes from weight-sensitive sports and compare them with two reference groups: former athletes from less weight-sensitive sports and age- and sex-matched individuals from the general population. Methods: We are conducting a rolling two-step cross-sectional study over 12 months. In Step 1, participants complete an electronic questionnaire including the Eating Disorder Examination Questionnaire–Short (EDE-QS), the Musculoskeletal Health Questionnaire (MSK-HQ), and the Low Energy Availability in Females Questionnaire (LEAF-Q) / Low Energy Availability in Males (LEAF-M). In Step 2, participants attend a clinical assessment including dual-energy X-ray absorptiometry (DXA) for body composition/bone mineral density, resting metabolic rate (RMR) measured by indirect calorimetry, and a clinician-administered diagnostic interview for eating disorders (EDs); former athletes also complete an additional module on the transition from competitive sport to everyday life. Results: Data collection is ongoing. To date, n=431 participants have completed Step 1 and n=69 have completed ≥1 Step 2 component. Analyses will examine group differences in mental health (including EDs), musculoskeletal status, and reproductive health and will be completed prior to the congress. Conclusions: The study will provide a one-year snapshot of post-career health in former high-level/elite athletes, supported by subjective, objective, and clinical assessments. Implications for policy and practice: Findings will inform athlete health policies and post-career follow-up pathways, including risk-based screening and transitional support for former high-level/elite athletes. Funding: Funded by the Norwegian School of Sport Sciences.

Denmark

Understanding Co-Creation Processes with Adolescents in YoPA Denmark

AUTHORS

Madsen, L.[1], Westerskov Dalgas, B.[2], Skau Pawlowski, C.[2]

AFFILIATIONS

[1]*University of Southern Denmark*
[2]*Active Living, University of Southern Denmark*

Background: Co-creation with adolescents is increasingly recognised as essential for developing public health interventions that reflect their lived experiences. Evidence shows that participatory processes can foster agency, self-efficacy, and social belonging. However, the mechanisms through which co-creation promotes this development remain poorly understood. Purpose: This study explores adolescents' experiences of participating in an eight-month co-creation process within the Danish part of the EU-funded YoPA project, a participatory initiative aimed at improving social and physical environments to promote physical activity among adolescents in vulnerable situations. Methods: Conducted in two leisure clubs in Aalborg, an eight-month co-creation process involved 24 adolescents, of whom 18 adolescents participated in six group interviews being the data for this study. Reflexive thematic analysis identified four key themes that shaped the adolescents´ experience Results: Four themes shaped adolescents' experiences: prosocial framing that fostered collective motivation, feeling valued as a foundation for empowerment, group dynamics that supported or obstructed participation, and non-school-like formats that sustained engagement. Empowerment emerged when adolescents' voices were acknowledged, facilitation supported group processes, and activities were interactive and creative. Conclusions: Meaningful participation in co-creation depends not only on adolescents' inclusion but on how processes are facilitated, group dynamics are managed, and opportunities for influence are experienced. Implications for Policy and Practice: Co-creation initiatives should prioritise facilitation strategies, group dynamics, and participatory formats that genuinely value adolescents' contributions to avoid tokenistic engagement and support empowerment.

Funding: This work was supported by the European Union's Horizon Europe research and innovation programme under grant number 101095423.

Sweden

Within-person associations between heart rate and glucose during wake and sleep in physically demanding work

AUTHORS

Väisänen, D.[1], Olsson, K.[2], Lind, J.[2], Ekblom-Bak, E.[2]

AFFILIATIONS

[1]*Swedish School of sport and health sciences*
[2]*The Swedish school of sport and health sciences*

Background: In athletes, high-intensity exercise is associated with transient glucose elevations followed by lower nocturnal glucose. Whether similar patterns occur in physically demanding occupational work is unclear. Purpose: To examine within-person associations between daily physical workload and glycemic patterns in workers with physically demanding jobs, focusing on daytime glucose, glucose variability, and subsequent nocturnal glucose. Methods: Fourteen shift workers wore Garmin smartwatches (heart rate) and Dexcom continuous glucose monitors for approximately 10 days. Daily physical workload was operationalized as mean waking heart rate. Glucose values were classified as wake or sleep using device-detected sleep periods, with nocturnal glucose assigned to the preceding workday. Days were divided into within-person quartiles of waking heart rate. Person-mean centering isolated day-to-day deviations. Linear mixed-effects models with random intercepts estimated associations with wake glucose mean, wake glucose coefficient of variation (CV), and nocturnal glucose mean. Secondary analyses examined intraday heart rate variability (SD) as a predictor of nocturnal glucose. Results: A total of 126 person-days were analyzed (median 10 days/person). Mean waking heart rate ranged from 79.7 bpm (Q1) to 88.6 bpm (Q4). Waking heart rate deviations were not associated with wake glucose mean ($\beta = -0.003$ mmol/L per bpm, $p = 0.84$) or nocturnal glucose mean ($\beta = -0.007$, $p = 0.70$). A near-significant inverse association was observed for wake glucose variability (CV; $\beta = -0.16$ % per bpm, $p = 0.058$). Intraday heart rate variability did not independently predict nocturnal glucose. Results were unchanged after adjustment for sleep duration. Conclusion: Daily physical workload was not associated with mean glucose levels during wake or sleep. However, reduced daytime glucose variability on higher-workload days suggests glycemic responses to occupational exertion may differ from structured exercise and warrants further study.

POSTERS

7 Oct | Poster Session Day 2

“La música y el baile me dan alegría”: Latin Dance Program Perceptions for Latino Adults

AUTHORS

Morales, D.[1], Corral, C.[1], Munoz, M.[1], Aguinaga, S.[1]

AFFILIATIONS

[1]*University of Illinois Urbana Champaign*

Background: Older Latinos experience high rates of physical inactivity, increasing their risk for chronic diseases. Culturally tailored physical activity (PA) programs, such as Latin dance, provide an engaging and accessible way to promote PA and improve health outcomes. Purpose: This study examines Latino participants’ perceptions of the BAILAMOS™ six-month remote Latin dance program, focusing on facilitators and barriers to participation. Methods: A synchronous online focus group was conducted in Spanish with 8 participants (Mean age = 59.75 ± 4.33; 87.5% female) who completed the six-month remote Latin dance intervention. Discussions explored participants’ perceptions of the program, including barriers and facilitators. Transcripts were analyzed in Spanish using grounded theory by three bilingual, bicultural researchers. Results: Three main themes emerged: 1) Cultural Relevance and Personal Connection: Participants valued culturally appropriate dance styles, which fostered enjoyment, identity, and belonging. 2) Health Promotion and Positive Behavior Change: The program motivated participants to increase PA and improve overall wellness. 3) Accessibility, Flexibility, and Competing Demands: Remote delivery was convenient, but balancing the program with personal responsibilities was challenging. Suggestions for improvement included more flexible scheduling to better meet various commitments. Conclusion: The findings highlight the benefits of culturally tailored PA programs like remote Latin dance, emphasizing enjoyment, cultural relevance, and the need for flexible delivery to address barriers. Implication for Policy and Practice: Culturally relevant, remote PA programs can effectively increase PA participation among Latino populations. Policymakers and practitioners should consider integrating such programs to address health disparities. Funding: NIH 2 P30 AG022849-21

Assessing National Physical Activity Guideline Awareness and Preferred Health Information Sources Among Spanish-Speaking Immigrant Populations

AUTHORS

Trejo Tello, K.[1], Johnson, L.[1]

AFFILIATIONS

[1]*College of Charleston*

Background Regular physical activity is a well-established strategy for promoting health and reducing chronic disease risk (Warburton, Nicol, & Bredin, 2006). However, U.S. Latino populations are less likely to meet recommended activity levels (Abraido-Lanza, Shelton, Martins, & Crookes, 2017; Silfee, Lemon, Lora, & Rosal, 2017). For Latino immigrants, challenges in meeting these recommendations may be exacerbated by immigration-related stressors (Distel, Egbert, Bohnert, & Santiago, 2019). The National Physical Activity Guidelines were established to provide evidence-based recommendations on the type and amount of physical activity necessary to support healthy lifestyles (U.S. Department of Health and Human Services, 2018). However, their impact may be limited among underserved populations with low health literacy or language barriers, who may not be able to access the information in these guidelines (Lawrence, Wardle, & Yoxall, 2025). Purpose This study aims to assess Spanish-speaking immigrant patients' knowledge of the National Physical Activity Guidelines and identify their preferences for receiving physical activity health information. Methods Spanish-speaking patients at a South Carolina free clinic serving a predominantly immigrant population were recruited to participate in brief semi-structured, audio-recorded interviews. The interview included a series of questions assessing their awareness of, and if applicable, knowledge of the National Physical Activity Guidelines. The interview included questions from the CDC Barriers to Physical Activity Scale and concluded with a question about preferred methods for learning about physical activity recommendations and strategies. Audio-recorded interviews are being transcribed for analysis. Scale items are analyzed using descriptive statistics, and thematic analysis is used to identify patterns in the open-ended responses. Results Participant interviews are currently in progress. Full results are expected by May 2026. Implications for Policy and Practice Findings from this study can help inform future dissemination of the National Physical Activity Guidelines in culturally appropriate and preferred methods.

Association between calibrated sedentary behavior and gain in body fat mass among Mexican health workers

AUTHORS

Macías, N.[1], Moterubio-Flores, E.[1], Salmerón, J.[2], Meneses-León, J.[1], Jauregui, A.[3], Salvo, D.[4], Villa, U.[4], Gallegos-Carrilo, K.[5]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*
[2]*Universidad Nacional Autónoma de México*
[3]*Instituto Nacional de Salus Pública*
[4]*The University of Texas, Austin, USA*
[5]*Instituto Mexicano del Seguro Social*

Sedentary behavior time (SBT) is strongly associated with excess adiposity, but estimates based on self-reported SB may be affected by substantial measurement error. We aimed to quantify the association between changes in SB and changes in total body fat mass using calibrated SBT measures.We analyzed 1,285 adults from the Mexican Health Workers Cohort Study with repeated assessments in 2004 and 2010. Total body fat mass was measured by DEXA. Self-reported SB (21 activities <1.5 METs across occupational, household, and leisure domains) was obtained with an adapted Nurses' Health Study questionnaire, and we obtained data on physical activity, diet, smoking, and sociodemographic factors . In a cross-sectional subsample of 142 participants, SBT was also assessed with ActiGraph GT3X+ accelerometers over seven days, defining sedentary time as <100 counts per minute and requiring at least four valid days (≥10 hours/day). Using this subsample, we developed and cross-validated generalized linear models to predict accelerometer-based hours/day from self-reported SBT, occupational sitting, sleep duration, body mass index, triglycerides, glucose, sex, and education. Predicted SB values were generated for the full cohort at both time points, and we used fixed-effects models to estimate within-person associations between changes in corrected SBT and in fat mass, adjusting for age, physical inactivity, tobacco use, and total energy intake. At baseline, mean age was 45.4 years, 73.7% were women, and mean fat mass increased from 24.9 to 26.8 kg over 6.8 years. Self-reported non-corrected sedentary time decreased, but corrected sedentary time averaged about 7.5–7.6 hours/day a. In fixed-effects models, each additional hour/day of corrected sedentary time was associated with a 0.85 kg increase in fat mass, and a 3-hour/day increase corresponded to an average gain of approximately 2.5 kg of fat mass. We found that modest increases in daily SBT are associated with clinically meaningful long-term gains in body fat mass



Chile

Association between neighborhood walkability and physical activity among older adults in two Chilean municipalities.

AUTHORS

Muñoz, B.[1], Fuentes-Kloss, R.[1], Calvo-Sanchez, F.[1], Roman-Ureta, C.[1]

AFFILIATIONS

[1]*Pontificia Universidad Católica de Chile*

Background Chilean older adults exhibit low levels of physical activity, increasing their risk of adverse health outcomes. Although neighborhood walkability has been associated with physical activity in older populations, evidence from Chilean urban settings remains limited. This study aligns with the ISPAH 2026 Congress theme by addressing comprehensive equity approach to physical activity and health. Objective To examine the association between perceived neighborhood walkability and physical activity levels among older adults living in the municipalities of Providencia and Macul, Chile. Methods An analytical cross-sectional study was conducted among adults aged ≥60 years residing in two municipalities of Santiago, Chile. Sociodemographic characteristics, physical capacity, physical activity levels, and perceived neighborhood walkability were assessed using self-report, Senior Fitness Test, Global Physical Activity Questionnaire, and Neighborhood Environment Walkability Scale–Abbreviated, respectively. Cognitive impairment was screened by Mini-Mental State Examination. Descriptive analyses and multivariable regression models adjusted for age and sex were applied. The study was approved by the Ethics Committee of Pontificia Universidad Católica de Chile (ID240531001). Results A total of 104 older adults were included (Providencia n=58; Macul n=46). Participants were predominantly female, age 73±6.5 years, retired, demonstrated good physical capacity, and over 80% met WHO physical activity guidelines. In both municipalities, perceived crime safety received the lowest walkability scores. No association was observed between meeting physical activity guidelines and neighborhood perception. However, in Macul, weekly minutes of physical activity were positively associated with traffic safety and inversely associated with crime safety. Conclusion Perceived neighborhood walkability was not consistently associated with physical activity levels among older adults in these municipalities. Larger and longitudinal studies are needed to better understand environmental influences on physical activity in Chilean older populations. Keywords: older adults; physical activity; walkability; neighborhood; Chile

Association between Outdoor Time and Compliance with WHO Physical Activity Recommendations among Mexican Children and

AUTHORS

Ortiz Rodriguez, A.Z.[1], Pineda Hernández, A.[2], Blas Miranda, N.B.[3], Larouche, R.[4], Jáuregui, A.[2]

AFFILIATIONS

[1]*Escuela de Salud Pública de México (ESPM)*
[2]*Instituto Nacional de Salud Pública*
[3]*Insituto Nacional de Salud Pública*
[4]*University of Lethbridge*

Background Although outdoor time has been associated with higher physical activity among children and adolescents, evidence based on objectively measured physical activity from Latin America remains scarce. This study examined the association between outdoor time and compliance with the World Health Organization (WHO) physical activity recommendations among Mexican children and adolescents and explored whether this association differed by sex and urban–rural residence. Methods We conducted a cross-sectional secondary analysis of 417 children and adolescents aged 8–17 years participating in the Mexican validation of the Global Adolescent and Child Physical Activity Questionnaire (GAC-PAQ). Caregiver-reported outdoor time was categorized as <2 h/day or ≥2 h/day. Compliance with WHO recommendations (≥60 min/day of moderate-to-vigorous physical activity) was objectively measured using accelerometry. Adjusted logistic regression models estimated the association between outdoor time and meeting physical activity recommendations, controlling for age, sex, socioeconomic status, and urban–rural residence. Interaction terms were included to assess effect modification by sex and urban–rural residence. Results Overall, 31.9% of participants spent ≥2 h/day outdoors, and 20.4% met the WHO physical activity recommendations. Spending ≥2 h/day outdoors was associated with twice the odds of meeting the recommendations compared with spending <2 h/day outdoors (adjusted OR = 2.0; 95% CI: 1.1–3.5). No statistically significant interactions were observed by sex (OR = 1.2; 95% CI: 0.34–4.6) or urban–rural residence (OR = 1.2; 95% CI: 0.37–3.6), indicating that the association was consistent across population subgroups. Conclusions Outdoor time was positively associated with meeting WHO physical activity recommendations among Mexican children and adolescents. Increasing opportunities for safe and equitable outdoor time may represent an effective population-level strategy to promote physical activity across diverse settings. These findings support the development of public health policies and community interventions aimed at increasing outdoor opportunities for children and adolescents in Mexico and other similar contexts.

Associations between 24-hour physical behavior patterns, β-cell function, and insulin resistance: a cross-sectional ELSA-Brasil analysis

AUTHORS

Moura, B.[1], do Vale, W.[1], Griep, R.[2], da Fonseca, M.D.J.[1]

AFFILIATIONS

[1]*National School of Public Health / Fiocruz-RJ*
[2]*Oswaldo Cruz Institute / Fiocruz-RJ*

Background: Physical activity (PA), sedentary behavior (SB), and sleep are interdependent behaviors that together make up the 24-hour day. Because time spent in one behavior constrains time available for the others, examining these behaviors jointly may better capture their combined metabolic relevance; however, evidence linking integrated daily behavior patterns to metabolic dysfunction remains limited. Objective: To examine associations of objectively derived 24-hour physical behavior patterns with HOMA2-estimated β-cell function and insulin resistance. Methods: This cross-sectional study included 9,239 adults from the 2017–2019 third examination wave of ELSA-Brasil. Participants wore hip-mounted accelerometers for seven consecutive days to assess PA, SB, and sleep. Partitioning Around Medoids clustering identified physical behavior patterns based on standardized mean daily durations. HOMA2-%B and HOMA2-IR were estimated from fasting glucose and insulin. Generalized linear models with gamma distribution and log link estimated ratios of means (RoMs) and 95% confidence intervals (CIs). Models adjusted for confounders identified using directed acyclic graphs, with additional adjustment for body mass index (BMI). Sensitivity analyses excluded participants with diabetes. Results: Three physical behavior patterns were identified. Compared with Cluster 3 (higher PA, lower SB, longer sleep), Cluster 2 (intermediate PA, SB, and sleep) had higher HOMA2-IR (RoM, 1.17; 95% CI, 1.13–1.21) and HOMA2-%B (RoM, 1.07; 95% CI, 1.04–1.09). Cluster 1 (lower PA, higher SB, shorter sleep) also had higher HOMA2-IR (RoM, 1.39; 95% CI, 1.35–1.44) and HOMA2-%B (RoM, 1.17; 95% CI, 1.14–1.20). BMI adjustment attenuated estimates, while sensitivity analyses yielded similar findings. Conclusions: Patterns characterized by lower PA, higher SB, and shorter sleep were associated with greater insulin resistance and higher HOMA2-%B, consistent with compensatory insulin secretion. Joint consideration of 24-hour physical behaviors may improve understanding of metabolic dysfunction.

Barriers and inequities in physical activity in university extension projects: a mixed-methods study

AUTHORS

Develey, L.[1], Trapé, Á.[2]

AFFILIATIONS

[1]*University of São Paulo (USP)*
[2]*Universidade de São Paulo (USP)*

Background University extension programs that promote physical activity (PA) can expand public access to structured practices and contribute to health promotion. However, understanding factors related to adherence and retention is essential to enhance their effectiveness and equity. Purpose To characterize the sociodemographic and economic profile of participants PA extension programs at a university in Ribeirão Preto, Brazil, and to analyze perceived barriers to PA practice using a mixed-methods approach. Methods This study was conducted between 2023 and 2024. The first phase was quantitative, descriptive, through a cross-sectional study, using an online questionnaire to collect data on sociodemographic characteristics, economic status, and perceived barriers to PA. Data were analyzed using the chi-square test. The qualitative phase included focus group interviews with participants from one extension program for middle-aged adults (40–59 years). Reflexive thematic analysis was applied to deepen understanding of reported barriers. Results In the quantitative phase (n = 158), most participants self-identified as white person (76.0%), women (65.8%), young (18–39 years) (36.7%) or middle-aged adults (38.6%), from higher economic classes (A and B) (80.0%), and with secondary or higher education (91.1%). Compared with the city's population, about race/ethnicity, there was underrepresentation of individuals who self-identified as mixed (brown) (Observed = 13.73%; Expected = 27.46%) and black (Observed = 5.88%; Expected = 8.05%). The main reported barriers were long working hours (60.8%) and family commitments (47.5%), with the latter associated with gender ($p < 0.05$), being more frequent among men. In the qualitative phase (n = 15), gender roles emerged as key barriers, particularly women's overload of unpaid domestic work and caregiving, compounded by limited support networks. Conclusions and Implications Although public and free, these programs predominantly reach socially privileged groups. Addressing racial, economic, and gender inequalities may broaden access and strengthen their impact on PA and health promotion.

Beyond “No Running”: A human-centered systems approach to school-based physical activity in Mexico

AUTHORS

García Perfecto, M.I.[1], Ramírez, E.[2], Alejandro Torres, N.[2], Argumedo, G.[2], Ochoa, A.[3], Ochoa, C.[3]

AFFILIATIONS

[1]*National Institute of Public Health*

[2]*National Institute of Public Health, Cuernavaca, Mexico*

[3]*University of Cuenca, Cuenca, Ecuador*

Background: Schools provide an ideal setting to promote physical activity (PA), health, and wellbeing. However, despite mandatory policies and programs for school-based PA, Mexican schools offer limited opportunities for PA during the school day. Purpose: To identify barriers to school-based PA and co-design context-responsive strategies with children, adolescents, and school stakeholders. Methods: A mixed-methods study was conducted in four public schools in urban and rural Cuernavaca, Mexico. A human-centered systems approach was implemented through three phases: (1) Group Model Building workshops with teachers, principals, and parents (n=57) to develop causal loop diagrams and identify reinforcing mechanisms and leverage points affecting school-based PA; (2) creative workshops with children and adolescents (n=71) to ideate and prototype feasible solutions building on adult-identified findings; and (3) multi-stakeholder workshops, including children and adolescents (n=130), to refine and validate proposed prototypes. Results: Systemic mapping identified restrictive school rules, institutional arrangements placing responsibility for student safety on teachers, and gender norms as key constraints on school-based PA. A reinforcing “fear of liability” loop emerged, whereby teachers limit PA to prevent accidents and reduce perceived legal risk associated with student injuries. Students consistently expressed readiness to act as change agents. Co-designed strategies included revising school regulations (e.g., uniforms and recess use), teacher training to support inclusive active play and active breaks, establishing student-led PA committees, and improving institutional alignment to reduce perceived implementation risk. Conclusions: School-based PA opportunities in Mexican public schools are constrained by interacting structural, institutional, and sociocultural factors that reinforce risk-averse practices. Engaging multiple stakeholders, particularly children and adolescents, can generate feasible, contextually appropriate strategies to transform school environments. Implications for Policy and Practice: Strategies should integrate a gender-equity lens, formalize student participation in governance, clarify supervision responsibilities, and strengthen institutional alignment to support safe active play.


Mexico

Caregiver and child self-efficacy and physical activity in a primary school children.

AUTHORS

Calderón Escalante, A.[1], Calderón Escalante, A.[2], Jáuregui Ulloa, E.E.[2], González Cantero, J.O.[3], Flores Villalpando, M.[4], Perez Maravilla, J.M.[4], Ponce Hernández, H.J.Y.[4], López y Taylor, J.R.[4], Jáuregui de la Mota, A.[5]

AFFILIATIONS

[1]Centro de Rehabilitación e Inclusión Infantil Teletón

[2]University Center of Health Sciences, University of Guadalajara.

[3]Univeristy of Guadalajara, University Center of the Valleys, Department of Behavioral Sciences.

[4]University Center of Health Sciences, University of Guadalajara

[5]Director of the Nutrition and Physical Activity Surveillance Area Nutrition and Health Research, Center National Institute of Public Health.

Background: Insufficient physical activity in school-aged children is a persistent public health concern, and family-related factors may influence children's behavior. This study was conducted in a public elementary school in Tonalá, Jalisco, within the macroproject A Multidisciplinary Approach to Childhood Obesity Prevention in Mexico (MACOP-MX) and a related intervention platform led by the National Institute of Public Health. Purpose: To examine whether age, sex, perceived self-efficacy for physical activity, and family factors (family functioning and dynamics) are associated with children's physical activity levels. Methods: Cross-sectional study including 72 child–caregiver dyads. Validated questionnaires assessed self-efficacy (children and caregivers) and family functioning (FACES III and APGAR). Caregivers' physical activity was assessed with IPAQ, and children's physical activity was measured objectively using accelerometry. Descriptive, correlational, and multiple regression analyses were conducted, including a Box-Cox transformation approach. Results: Most children reported high self-efficacy for physical activity (82.2%); however, 75% did not meet the WHO recommendation of at least 60 minutes/day of moderate-to-vigorous physical activity. Sex was the only statistically significant predictor of children's physical activity, with girls being less active than boys ($p = .0201$). No significant association was found between caregiver self-efficacy and children's physical activity. Exploratory factor analysis of FACES III identified six dimensions of family functioning; collaboration and problem-solving emerged as relative strengths, while emotional cohesion was low. Conclusions: High perceived self-efficacy among children did not necessarily translate into adequate physical activity levels. Sex differences and family dynamics should be considered in designing future interventions to promote active lifestyles in childhood. Practical implications: Findings support the need for family- and context-informed strategies, with particular attention to reducing sex-based gaps in activity among schoolchildren.



Canada

Comparison of Self-Reported Questionnaires and Device-Based Physical Activity Measures in Older Adults: A Systematic Review

AUTHORS

Elbanna, F.[1], D'Amore, C.[2], Stoffers, J.[3], Cornish, B.[4], Hakimi, S.[4], El-Moneim, N.[4], Silva, I.[4], Beauchamp, M.[4]

AFFILIATIONS

[1]*McMaster University*

[2]*Department of Physical Therapy, Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada*

[3] *Beauchamp Lab, McMaster University, Hamilton, Ontario, Canada*

[4]*School of Rehabilitation Science, McMaster University, Hamilton, Canada*

Background: Accurate physical activity (PA) assessment is fundamental for surveillance and intervention in aging populations. The increased uptake of device-based measures in research and commercial sectors highlights a need to characterize the extent to which these measures capture the same construct of PA as self-report instruments. Understanding agreement is particularly important in older adults whose mobility, activities, and cognitive abilities may differ from those of younger populations. Purpose: To compare agreement between self-report questionnaires and device-measured PA in community-dwelling older adults. Methods: Six electronic databases were searched (inception–December 2025) for peer-reviewed studies containing both self-report and device-based PA in adults aged ≥60, with no language or geographical exclusions. Details on population, PA instruments, and relationships between instruments were extracted (e.g., correlations, mean differences). Results: The review included 214 studies (N=153,760) published between 1983–2025, across 35 countries. The International Physical Activity Questionnaire, Physical Activity Scale for the Elderly, and the Community Healthy Activities Model Program for Seniors were the most frequently evaluated self-report questionnaires. Accelerometers were the predominant device-based measures, most commonly ActiGraph devices, followed by activPAL and GENEActiv. The most common constructs were total activity volume, followed by moderate-to-vigorous physical activity and walking duration. Relationships were generally weak: 72.5% of associations were classified as very weak or weak ($r < 0.40$), and 22.9% as moderate. Strong or very strong associations ($r \geq 0.60$) were rare (4.5%), and were primarily observed when measuring congruous constructs. Conclusions: Self-report and device-based measures provide distinct, non-interchangeable PA estimates in older adults. The predominance of weak associations highlights the methodological challenges in capturing PA via self-report. Implications for Policy and Practice: Instrument selection should match the outcome of interest (devices for intensity/volume, questionnaires for context, or a combination). Policies and guidelines should account for measurement differences to avoid misclassifying PA and related health risks in older adults.

Cross-Cultural Adaptation of the Social Support Scale for Physical Activity in Mexican Children and Adolescents

AUTHORS

Flores Villalpando, M., Jauregui Ulloa, E.E.[1], Zárate González, I.[2], Juárez Rodríguez, P.[2], Pliego Rayas, A.[3], Ortiz Brunel, J.[4], González Villalobos, M.F.[2], López Y Taylor, J.R.[2]

AFFILIATIONS

[1]*Master's Program in Physical Activity and Lifestyle, University Center for Health Sciences, University of Guadalajara, Guadalajara, Jalisco, Mexico.*

[2]*University Center for Health Sciences, University of Guadalajara, Guadalajara, Jalisco, Mexico.*

[3]*Western Institute of Technology and Higher Education (ITESO), Tlaquepaque, Jalisco, Mexico.*

[4]*Department of Physical Activity and Healthy Lifestyles, National Institute of Public Health (INSP), Cuernavaca, Morelos, Mexico.*

Background: Social support (SS) is the most significant predictor of physical activity (PA) in children and adolescents. Despite its relevance, most available tools focus on older adolescents, creating a gap in validated scales in Spanish specifically for the Mexican context. Overcoming this gap is essential for optimizing public health policies and promoting active lifestyles in Mexico. Purpose: To cross-culturally adapt and evaluate the preliminary psychometric properties of a German social support scale for PA in Mexican children and adolescents (aged 11–15 years) Methods: The process followed international guidelines (translation, synthesis, back-translation, and expert review). A pilot study was conducted in public schools (N=41, aged 11–15 years) in Guadalajara, Mexico. Statistical analysis utilized polychoric correlation matrices and Exploratory Factor Analysis (EFA) with Varimax rotation. Non-parametric bootstrapping (1,000 repetitions) was applied for 95% confidence intervals (CI) to strengthen estimates. Reliability was estimated using McDonald's Omega (ω) and Cronbach's Alpha (α). Results: Content validity was satisfactory (Aiken's V = 1.0). KMO (0.545) and Bartlett's test ($\chi^2 = 271.271$; $p < .001$) indicated data adequacy. The KMO value was considered acceptable given the exploratory nature of the study. EFA identified two factors explaining 71% of the total variance: Peer Support (F1: 49%) and Parental Support (F2: 22%). Factor loadings ranged from 0.54 to 0.98. Internal consistency was robust: $\omega = 0.801$ (95% CI [0.623, 0.869]) and $\alpha = 0.786$ (95% CI [0.669, 0.849]). Conclusions: Preliminary results indicate the adapted scale is a viable and promising tool for assessing social support in future research and PA interventions. The instrument demonstrated adequate psychometric behavior in this pilot phase, effectively addressing a critical instrumental gap for PA promotion in Mexican youth. Funding: No funding.



Cross-sector collaboration drives healthy weight-loss by celebrating culture and friendly competition

AUTHORS

Mitchell-Bennett, L.[1], Mitchell-Bennett, L.[2], Reininger, B.[2], Sanchez, P.[2], Perez, J.[2], Diaz, S.[2], Lozoya, R.[2]

AFFILIATIONS

[1]*UTHealth*

[2]*University of Texas Houston Health Science Center*

Background: American Latine have higher prevalence of obesity compared to non-Latine white adults. Disparities stem from factors across socioecological levels, increasing susceptibility to obesity-related chronic conditions and mortality. Innovative interventions are required to prevent obesity. Socially driven persuasive health interventions include weight loss/health competitions. To address high obesity rates on the U.S.-Mexico border, a cross-sector coalition implemented a community weight-loss competition. 'Challenge-RGV' is a popular annual, three-month initiative emphasizing social engagement to inspire healthy weight loss. Challenge-RGV includes culturally appealing celebrations (e.g: Guinness World Records largest Huapango Dance; Zumba class) and promotion of small businesses. The 16-year running intervention features health screenings, group/individual prizes, free access to local gyms, support groups, and social media/motivational text messaging. City leaders, community groups, businesses, and university researchers collaborate and sponsor. Purpose: Using the Reach, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) framework, describe barriers and facilitators to the implementation of a community-based weight loss intervention including adaptation overtime, providing a model for other populations. Methods: Conducted descriptive analysis and hypothesis testing on aggregated 16-year data including demographics, retention, and percent weight loss. Effectiveness was measured by difference in percent weight loss between baseline and three months post, controlling for sociodemographic variables. Results: 17,940 participants have enrolled, with 28,483 total pounds lost. 83% participants with pre/ post measures lost some weight; 33% lost 5% or more of their body weight between time points (improving health status). The overall average percent weight loss is 4.0% among those who completed. The collaborative nature of the intervention is essential to maintenance. The RE-AIM model reveals positive intervention impact but low retention of participants. Conclusions: Challenge-RGV provides a replicable community model featuring cross-sector collaboration for weight loss. Implications for Policy and Practice: Cross-sector university-municipality-business partnerships can effectively engage residents to prevent and control obesity/comorbidities using incentives and tailored weight-loss challenges.


Mexico

Effects of Health-on-Board pilot program on energy balance and well-being in offshore workers.

AUTHORS

Enríquez, C.[1], Ceballos Gurrola, O.[2], Herrera Zepeda, M.D.L.A.[3], Vega Trinidad, J.C.[2], Montoya Martínez, C.A.[2]

AFFILIATIONS

[1]*COTEMAR*
[2]*Universidad Autónoma de Nuevo León*
[3]*XOCHITL-UIT, S. A. DE C. V.*

Background: It is necessary to identify appropriate strategies to promote healthy lifestyles in contexts where the physical and psychosocial demands of work may interact differently with health programs designed for traditional contexts. Purpose: It is proposed to analyze the effects of an exercise and comprehensive health promotion program entitled "Health on board" on energy balance (expenditure-rest, body composition, strength and balance) and well-being in workers on offshore platforms in the oil and gas industry. Methods: Quasi-experimental pilot study of parallel groups with four measurements in a total sample of 30 participants (15 per group/two boats). Energy expenditure is evaluated with Garmin Vivosmart 5 equipment, body composition analysis with electrical bioimpedance, squat test, abdominal test, single-leg support tests and manual dynamometry. The stress subscale of the DASS-21 and the Positive and Negative Affect Scale will be applied. The 20-week health program includes advice for physical training for muscular resistance and cardiovascular resistance; in addition, educational sessions on comprehensive health. Data analysis using SPSS software version 27.0 with linear mixed models, ANCOVA tests, and intention-to-treat method as appropriate. Results: The program has been designed considering high sea activities and the space available for training on board, it includes visual supports in key spaces of the vessel and personalized synchronous advice for the rest period between boardings. The project is undergoing ethics review and will be submitted to COFEPRIS. Preliminary data scheduled for summer 2026. Conclusions: The implementation of planned physical interventions can have a positive impact on the energy balance, physical performance and well-being of employees, consolidating its usefulness as a preventive and health-promoting strategy. Implications for Policy and Practice: Health promotion campaigns on offshore platforms reinforce the company's social responsibility with the potential to impact occupational risk, job satisfaction and worker well-being. Funding (if applicable): COTEMAR, S.A. de C.V.

Mexico

Green Space Exposure and Obesity in the Mexican Adult Population

AUTHORS

Blas Miranda, N.B.[1], Lozada Tequeanes, A.L.[2], Miranda Zuñiga, J.A.[3], Pescador Jimenez, M.[4]

AFFILIATIONS

[1]*National Institute of Public Health (INSP) of Mexico*
[2]*CINYS-INSP*
[3]*UNAM*
[4]*Boston University*

Green space or natural vegetation may reduce obesity risk by increasing opportunities for physical activity or reducing stress and exposure to other pollutants. Obesity prevalence in Mexico is ranked among the highest in the world. However, research on the association between green space and obesity in Mexico is lacking. We used data from the National Nutrition Survey in Mexico (2018–2019), a nationally representative sample of Mexican adults. The analytical sample included participants between 20–59 years of age (n = 12,631). We assessed exposure to green space using a 30 m resolution Landsat satellite Normalized Difference Vegetation Index (NDVI) from 2018. Linear regression models examined associations between NDVI and body mass index (BMI), adjusting for confounders. The mean age of the study sample was 38 (SD 0.19) years. Participants living in areas with the highest green space exposure had the lowest education level (53.51%) and socioeconomic status (28.38%) and were located in central (33.01%), south (30.37%), and rural areas (21.05%). Higher residential exposure to green space was associated with a mean decrease in BMI of −1.1 kg/m2 (95% CI: −1.59, −0.68). This is one of the first studies in Latin America to suggest a protective association between green space and obesity among Mexican adults. Keywords: green space; obesity; environmental health; Latino population; spatial epidemiology

Health, Chronic Diseases, and Physical Activity Among Urban and Rural Older Adults in Southern Brazil

AUTHORS

Barros, T.[1], Pandolfo, K.C.M.[2], Froehlich, M.[2], Porporatti, L.B.[2], Azambuja, C.R.[2], dos Santos, D.L.[2]

AFFILIATIONS

[1]*Universidade Federal de Santa Maria*

[2]*Graduate Program in Movement and Rehabilitation Sciences – UFSM, Brazil Exercise Physiology Laboratory (LAFIEX – UFSM)*

Background: Population aging is associated with an increased prevalence of chronic diseases and functional limitations. Environmental and social contexts may influence health perception, disease burden, and physical activity patterns among older adults. Purpose: To analyze health perception, prevalence of chronic diseases, and physical activity levels among older adults living in urban and rural areas of a city in Southern Brazil. Methods: This cross-sectional, population-based household study included 274 older adults (202 urban and 72 rural residents) aged 60 years or older. Data collection comprised sociodemographic characteristics, cognitive screening using the Mini-Mental State Examination, self-rated health, prevalence of chronic diseases, and physical activity level assessed by the International Physical Activity Questionnaire (IPAQ). Participants were classified as physically active if they accumulated ≥150 minutes of weekly activity. Group comparisons were performed using Student's t-test, Mann–Whitney test, and chi-square test, adopting a significance level of 5%. Results: Most participants reported a positive perception of health. A high prevalence of chronic conditions was observed, particularly hypertension and dyslipidemia, which were significantly more frequent among rural residents ($p<0.05$). Physical activity levels were higher in the transportation domain, while leisure-time physical activity was markedly low in both groups. Rural residents presented a significantly higher prevalence of insufficient leisure-time physical activity (91.0%) compared with urban residents (80.1%) ($p<0.05$). Conclusions: Older adults living in rural areas showed a higher burden of chronic diseases and lower levels of leisure-time physical activity than their urban counterparts. These findings highlight the need for context-specific public health strategies aimed at promoting physical activity, improving chronic disease management, and supporting active and healthy aging, particularly in rural settings.
Keywords: Older adults; Physical activity; Chronic disease; Urban area; Rural area.

Inequalities in physical activity and sedentary behavior among adults at high diabetes risk

AUTHORS

Ostolin, T.[1], Fonseca, D.C.[1], Tavares de Oliveira, L.[1], Shibuya Alves, B.[1], Pagano, R.[1], Bersch-Ferreira, Â.C.[1]

AFFILIATIONS

[1]*BP - A Beneficência Portuguesa de São Paulo*

Insufficient physical activity (PA) and high sedentary behavior (SB) increase cardiometabolic risk and disproportionately affect disadvantaged populations. Evidence from middle-income countries remains limited, particularly among adults at high risk for type 2 diabetes (T2D). Understanding how inequalities shape movement behaviors is essential for equitable prevention strategies. This exploratory cross-sectional analysis aimed to assess associations between inequalities, PA and SB among 220 Brazilian adults at high risk for T2D (defined by the Centers for Disease Control and Prevention diabetes risk score) enrolled in the PROVEN-DIA pilot study (NCT05689658). Inequalities were assessed using self-reported income, education, race/ethnicity, marital status, region of residence, and access to piped water, paved streets, and healthy food. PA (walking and MVPA in minutes/week) and SB (weekday and weekend sitting time in hours/day) were measured using the International Physical Activity Questionnaire. Multivariable linear regression assessed associations adjusted for age, sex, and diabetes risk. Variables were screened using stepwise models and retained in theory-driven enterwise models, with specifications minimizing overadjustment and collinearity. The sample included 78.9% women, 67.9% black/brown participants, and 23% with monthly income ≤2 minimum wages. In the final model, white participants accumulated substantially more PA than black/brown participants (β=83.6 minutes/week; 95%CI: 6.8–160.3; p=0.033), while higher diabetes risk was associated with lower PA (β=−37.5 minutes/week per point; 95%CI: −62.4 to −12.6; p=0.003). Higher income was associated with greater weekday SB (β=1.015; 95%CI: 0.108–1.922; p=0.029), possibly reflecting work-related sitting whereas older age was associated with lower weekend SB (β=−0.049; 95%CI: −0.094 to −0.004; p=0.033). Inequalities were differentially associated with PA and SB among adults at high risk for T2D. These preliminary findings support diabetes prevention policies prioritizing actions targeting racial disparities, work-related SB, and age-specific behaviors. Findings highlight the importance of tailoring lifestyle interventions according to social vulnerability profiles to avoid widening inequalities in diabetes prevention.

Moving Together/Juntos en Movimiento/Juntos em Movimento Highlight



United States

Knowledge and Attitudes about Physical Activity Guidelines in Hispanic Parents of Preschoolers: A Systematic Review

AUTHORS

Lee, R.[1], Nelson, R.F.[1], Schuchardt, C.[1], Stevenson, M.[1]

AFFILIATIONS

[1]*Arizona State University*

Background: Physical activity (PA) in early childhood supports developmental milestones and long-term health. Hispanic preschool-aged children in the US are less likely to meet national PA recommendations than non-Hispanic peers, contributing to early health disparities. Parents are primary agents in shaping young children's PA behaviors; however, limited knowledge of guidelines and attitudinal or contextual barriers may hinder effective dissemination and implementation. Purpose: To systematically synthesize evidence on PA guideline knowledge and attitudes among Hispanic parents of preschool-aged children in the US and identify multilevel determinants relevant to implementation of PA recommendations. Methods: This systematic review followed PRISMA guidelines and was registered with PROSPERO (CRD42023482729). PubMed, CINAHL, Academic Search Ultimate, and PsycInfo were searched for peer-reviewed English-language studies (2014–2025) examining PA knowledge and/or attitudes among Hispanic parents of children aged 2–5 years residing in the US. Quantitative, qualitative, and mixed-methods studies were eligible. Two reviewers independently screened and extracted data on study design, sample characteristics, PA knowledge and attitudes, and implementation-relevant determinants. Study quality was assessed using GRADE criteria. Results: Of 106 records identified, 15 studies met inclusion criteria (10 qualitative, 5 quantitative), representing 1,858 participants (88% women; 81% Hispanic). Parents valued PA for child health but demonstrated limited awareness of national PA guidelines, indicating a dissemination gap. Barriers operated across levels, including interpersonal (time constraints, supervision demands), community (unsafe or limited play spaces, weather), and sociocultural (prioritization of sedentary academics, concerns about excessive PA). Overall certainty of evidence was low due to reliance on qualitative and observational designs. Conclusions: Hispanic parents value PA but face knowledge gaps and multilevel barriers that may impede guideline implementation. Implications for Policy and Practice: Culturally responsive implementation strategies that improve guideline dissemination and address structural and belief-based barriers may enhance equitable uptake of PA recommendations.

Funding: NIH OT2HD108101-01

Living Farther From Parks Is Associated With Lower Physical Activity in Mexico City Adults

AUTHORS

Ortiz Brunel, J.[1], Jáuregui de la Mota, A.[2], Medina, C.[2], Resendiz, E.[3], Hernández-Alcaráz, C.[2]

AFFILIATIONS

[1]*National Institute of Public Health (INSP)*

[2]*National Institute of Public Health*

[3]*Instituto Tecnológico y de Estudios Superiores de Monterrey*

Background: The built environment plays an important role in shaping physical activity (PA) behaviors, as neighborhood characteristics may either facilitate or constrain opportunities for movement. This relationship may be particularly relevant in highly dense urban settings. Nevertheless, little is known about how neighborhood built environment characteristics relate to physical activity among adults living in megacities, particularly in Latin America. Purpose: To examine associations between built environment characteristics and PA in adults from Mexico City. Methods: Cross-sectional analyses used data from the 2015 Mexico City Representative Diabetes Survey, a probabilistic, stratified, multistage cluster survey of adults aged 18–65 years (n=1222). GIS-derived environmental variables included: distance to nearest park (meters), as well as population density (people/km2), intersection density (number/km2), and density of crimes (number/km2) within 500-m home buffers. Total physical activity was measured using the IPAQ. Total physical activity (log10-transformed minutes/week) was regressed on built environment characteristics using multiple linear regression, adjusting for sociodemographic variables (sex, age, education, marital status, motor vehicle ownership, and socioeconomic status). Coefficients were interpreted as relative changes. Results: Greater distance from home to the nearest park was significantly associated with lower total physical activity, corresponding to approximately 0.8% lower total PA per additional 100 meters of distance (7.8% lower per 1 km, p=0.001). No other built environment variables showed significant associations. Conclusions: Park proximity emerged as the built environment characteristic associated with total physical activity, highlighting the potential role of access to green spaces in promoting physical activity in dense urban settings. Implications for Policy and Practice: Policies prioritizing park availability and proximity in underserved neighborhoods could contribute to reducing structural barriers to physical activity in dense urban settings.


Mexico

MUEVETE:Multicomponent program to improve physical fitness and reduce fear of falling.

AUTHORS

Enriquez, D.R.[1], Lopez y Tayor, J.R.[1], Franco Avalos, C.J.[1], Licona Pasarin, E.[1], Jimenez Alvarado, J.A.[1]

AFFILIATIONS

[1]*University of Guadalajara*

Background: Falls in older adults constitute a critical public health challenge, compromising autonomy and quality of life. Sarcopenia and impaired postural control are key determinants of these events. In Mexico, over 16,000 deaths annually are associated with falls. Multicomponent training (strength and balance) is recognized as an efficient non-pharmacological strategy to mitigate geriatric frailty and prevent adverse outcomes. Methodology and Implementation Components: A progressive multicomponent training program was implemented, consisting of a 7-week intervention (3 sessions/week, 45-60 min per session). The program was conducted in public spaces in Jalisco, Mexico, in collaboration with COMUDE Tlaquepaque. Session composition included: 1) Muscular endurance (emphasizing lower body and core), 2) Static and dynamic balance stimulation, and 3) Dual-task coordination and recreational activities to foster adherence. Pre- and post-intervention assessments quantified changes in physical fitness and fear of falling using the Chair Stand Test, Timed Up and Go (TUG), manual dynamometry, and Short-FES-I . Evaluation and Impact: A sample of 29 women (mean age: 72 years) was analyzed. Descriptive statistics revealed significant functional adaptations. Physical performance improved, as evidenced by the Chair Stand Test (increasing from 13 to 15 repetitions), TUG (reducing from 7.11 to 6.67 s), and dynamometry (increasing from 21 to 23 kg). Furthermore, the psychological burden of falling decreased; Short-FES-I scores dropped from 13.4 to 10.6 points, indicating enhanced psychomotor confidence. Conclusions: Implementing this multicomponent program in non-clinical community settings proved to be a suitable and accessible strategy for this population. Findings are promising, suggesting that a short-term dosage of strength and balance training induces positive adaptations in functional mobility, strength, and confidence, effectively reducing. Practical Implications: The project promotes health equity by offering free access to preventive care in public spaces. It fosters social inclusion and sustainability by educating participants on healthy habits that persist beyond the intervention. Funding: None.



Brazil

Physical Activity and Test Anxiety Among Brazilian Students

AUTHORS

Oliveira-Silva, I.[1], Amorim, S.[2], Ribeiro Oliveira, J.[2], Andrade, L.[2]

AFFILIATIONS

[1]*Universidade Evangélica de Goiás*
[2]*UniEVANGÉLICA*

Background: Test anxiety is a specific form of anxiety that occurs in assessment situations and involves psychological, physiological, and behavioral reactions associated with concerns about outcomes. Physical activity has been suggested as a potential intervention to mitigate anxiety, it has shown promise in addressing mental health problems and may influence heart rate variability (HRV) and, consequently, the stress response, reducing anxiety and improving performance. Objective: To analyze the effects of physical activity on test anxiety in students, the research followed the CONSORT statement. Methods: A randomized clinical trial was conducted with 237 students from the 8th grade of middle school to the 3rd year of high school. Participants were allocated into group 1 (PAG, n = 122), which followed a physical activity protocol consisting of diaphragmatic and pursed-lip breathing exercises combined with stretching, and group 2, a control group (CG, n = 115). Data on body composition (bioelectrical impedance), anxiety (CTAR25), physical activity level (steps), changes in HRV, grade level, age, and sex were collected from students. Statistical analyses were performed using SPSS (v. 27.0, IBM). Descriptive statistics were presented as mean and standard deviation, and both parametric and non-parametric tests were applied. Results: Autonomic changes were observed (CTAR25) in group 1 compared with group 2, indicating a significant association between physical activity and test anxiety. HRV analysis showed a greater predominance of parasympathetic activity (RMSSD, PNS, RR, SDNN, SD1 and SD2) relative to sympathetic activity (LF), based on differences between pre- and post-intervention means when compared with the control group, with significant interactions ($p < 0.05$). Anxiety levels showed that 78.8% of female students presented moderate to high anxiety, and 81.9% of students were classified as sedentary. Students' body composition values were within normal ranges for age and sex. Conclusion: There are effects of physical activity on test anxiety.

Mexico

Physical activity, weight loss, and stress associated with menstrual disorders in Weight-Class Female Athletes

AUTHORS

Chavez Castro, S.B.[1], Licona Pasarín, E.[1], Ortiz Ángel, A.G.[1], Jimenez Alvarado, J.A.[1], López y Taylor, J.R.[1], Franco Avalos, C.J.[1]

AFFILIATIONS

[1]*University of Guadalajara*

Background: Female athletes show a higher incidence of menstrual irregularities compared to the general population, particularly at the professional level. Secondary amenorrhea has been reported in up to 69% of athletes, in contrast to 2% to 5% in the general population. This difference is mainly associated with weight loss and intense physical exercise. Purpose: At the University of Guadalajara, during the competitive period, training load increases and energy intake is restricted, often involving rapid weight loss. These factors, along with competitive stress, may disrupt hormonal balance and menstrual cycles. In Mexico, scientific evidence on this phenomenon is limited, hindering the implementation of specific preventive strategies. Methods: A prospective, observational and analytical study will include female athletes aged 18–24 years from weight-category sports at the University of Guadalajara during the 2026 National University Championships preparation period. Physical activity will be objectively assessed using accelerometry. Body composition will be measured through bioelectrical impedance analysis and anthropometry. Perceived stress will be evaluated using the Sport Stress Scale. Menstrual cycle characteristics will be recorded across five key moments of the competitive process. Descriptive and correlational analyses will examine associations between training load, weight variation, stress levels, and menstrual alterations. Possible results: It is expected that a high prevalence of menstrual alterations, including amenorrhea and oligomenorrhea, will be identified. Positive associations are anticipated between increased training load, rapid weight loss, elevated stress, and menstrual dysfunction during critical phases of competitive preparation. Conclusions: Menstrual alterations in female weight-category athletes appear to be multifactorial, reflecting the interaction between physiological stress, intentional weight reduction, and intensive training. Findings may support the implementation of multidisciplinary monitoring strategies integrating training periodization, nutritional planning, and psychological support to protect athlete health while maintaining performance. Funding: Support is provided by the Secretariat of Science, Humanities, Technology and Innovation (SECIHTI).


Colombia

Purpose-Driven Management in Physical Activity and Health: The CAPF SportHealth Experience in Colombia

AUTHORS

Guzmán Caicedo, M.U.[1], González Robayo, G.[2]

AFFILIATIONS

[1]*Universidad del Rosario, Bogotá.*
[2]*NEGOSS Research Group, Colombia*

Background CAPF SportHealth began in 2007 as a sport entrepreneurship initiative and evolved into an organization integrating physical activity, sport, recreation, and rehabilitation. After financial and legal challenges in 2018, it began a purpose-driven transformation in 2019, centered on health and quality of life. Since 2021, it has expanded rehabilitation services and strengthened the involvement of physical activity and health professionals. Purpose To describe the evolution of purpose-driven management at CAPF SportHealth, the expansion of its services, and functional outcomes among rehabilitation users from 2021 to 2026. Methods An observational, descriptive, retrospective institutional case study was conducted. Institutional documents from 2007–2026 and records from all 50 users enrolled in the rehabilitation service from 2021–2026 were reviewed. Programs lasted six to twelve months. Physical functioning was assessed through mobility, strength, aerobic capacity, flexibility, balance, gait, and functional movement measures, complemented by professional judgment. Frequencies and percentages were calculated. Results Institutional development included the expansion of physical activity, health-oriented exercise, and rehabilitation services. Users were aged 30–84 years, and 70% were women. Records documented limitations in walking or running, the use of crutches, and one case involving functional adaptation to a lower-limb prosthesis. Forty-two users (84%) completed rehabilitation and received a final functional assessment, while eight (16%) discontinued before final assessment. Among users who completed rehabilitation, records documented individual functional changes and improvements. Twenty-five users (50%) subsequently remained engaged in exercise programs at CAPF SportHealth. Conclusions Purpose-driven management accompanied CAPF SportHealth's evolution toward an integrated physical activity, health, and rehabilitation model. Most users completed rehabilitation and received a final functional assessment. Heterogeneity in diagnoses and assessment methods limited pooled comparisons. Implications for Policy and Practice Standardized assessments, condition-specific measures of pain, functioning, and quality of life, and systematic follow-up could strengthen outcome evaluation and support future practice-based research.

Recruitment Strategies in Faith-Based Research: The Role of Church Characteristics

AUTHORS

Gomez, E.[1], Schneider, J.[2], Martinez Sanroman, I.[2], Lara Camarena, N.[3], Arredondo, E.[4]

AFFILIATIONS

[1]*Institute for Behavioral and Community Health*

[2]*Institute for Behavioral and Community Health (IBACH), San Diego State University, USA*

[3]*Institute for Behavioral and Community Health (IBACH), San Diego State University, USA; School of Public Health, San Diego State University, USA*

[4]*Institute for Behavioral and Community Health (IBACH), San Diego State University, USA; Department of Psychology, San Diego State University, USA*

Introduction: Approximately 40% of U.S. Latino Catholics attend church weekly, underscoring the potential of faith-based organizations (FBOs) to promote health. Despite their reach of diverse communities, little is known about recruiting FBOs. This study examines patterns between church characteristics and the number of recruitment strategies needed to enroll churches in Fe en Acción, a church-based physical activity (PA) intervention for Latina women. Methods: A list of churches in the Diocese was compiled. Churches were identified through (1) priest referrals, (2) Community Advisory Board recommendations, and (3) community networking events; then (4) contacted via email and phone outreach and (5) recruitment materials. Interested churches received a (6) presentation by the research team to leaders and/or (7) the congregation. Recruitment strategies were tracked by church and summed, categorizing churches by the number required for enrollment (1, 2–3, ≥4). Church characteristics (size, existing ministries, previous delivery of a PA program) were summarized by category using descriptive statistics. Results: Fifty Catholic churches were targeted, and n=21 enrolled. Medium- and large-sized congregations were more common among churches, requiring more strategies, ranging from 10% (recruited by one strategy) to 35% (four or more strategies). Churches with Hispanic ministries were more common among those needing 2-3 strategies (35.3%) than among those needing four or more (5.9%). One-third of the churches that needed four or more strategies had not partnered with other organizations to deliver a PA program. Conclusions: Larger churches and those without a Hispanic ministry required more recruitment strategies, as did churches new to research partnerships. Attention to organizational capacity, cultural fit, and established rapport is necessary for church recruitment. Implications for Practice: This study identifies strategies and church characteristics to enhance recruitment of Latino-focused churches. Findings can guide investigators in tailoring strategies to engage FBOs in promoting health interventions among ethnic minorities. Funding: NIH-NHLBI 1R01HL158538



Colombia

Relationship between Selective and Alternating attention with Outdoor Play time in school children in Colombia

AUTHORS

Tordecilla Sanders, M.A.[1], García-Laguna, G.[2], Trompetero-González, A.C.[3], Alvarez-Montoya, E.[3], Pulecio-Pacheco, E.N.[3], Redondo-Bejarano, C.[4], Zuluaga-Gómez, A.F.[3], Ramos-Caballero, D.M.[3], Domínguez-Sanchéz, M.A.[4]

AFFILIATIONS

[1]*Universidad del Rosario*

[2]*Universidad del Rosario, School of Medicine and Health Sciences, Rehabilitation Science Research Group, Center for the Study of Physical Activity Measurement (CEMA), Bogotá, Colombia.*

[3]*Universidad del Rosario, School of Medicine and Health Sciences, Rehabilitation Science Research Group, Center for the Study of Physical Activity Measurement (CEMA), Bogotá, Colombia*

[4]*Departamento del Movimiento Corporal Humano, Facultad deMedicina, Universidad Nacional de Colombia, Bogotá, Colombia.*

Background: The attention is a cognitive process that involves several dimensions according to the task to be performed(1). High exposure to screens and decreased levels of physical activity have been factors that affect the development of cognitive functions in children(2). Purpose: to determinate the relationship between Selective and Alternating attention with outdoor play in school children in Colombia Methods: Cross sectional correlational analyses performed in 73 children (56.2% girls) 8 to 10 years old from primary school in Bogota, Colombia. Selective Attention (SA) was measured with the Number-Symbol Coding Test(3) and the Alternating Attention (AA) was measured with the Perception of differences test- FACES(4). The Outdoor Play (OP) with the Measurement of Physical Activity and Sedentary Behavior Survey (CMAFYCS in Spanish)(5). The relationship of SA and AA with OP time by sex classification was assessed by Spearman´s correlation analyses. Significant statistics was determinate with a p-value <0.05. Results: Mean for SA and AA score was 33.84±8.48 and 26.58±8.79 points, respectively. 20.79±27.37 min/week for time dedicate to OP time mean. Direct moderate correlation was obtained between SA and AA with OP time in boys (Rho=0.357 p=0.042; Rho=0.470 p=0.006, respectively). Conclusion: OP time may be had favorably association with school children´s attention function. In children the OP time as physical active could be a protective factor for attention function. To strengthen and support this results, future research is required as well as to identify the potential mechanisms of association. Practical implications: Involve the play time in the curriculum could be a influence factor that helps to increase attention function in scholar children and that impact in the physical activity levels at school in Colombia.

Funding Information: This project had funding from the 2020 announcement between Universidad del Rosario and Universidad Nacional de Colombia focused on the mitigation of COVID-19 effects in Colombia.

Return on investment and value of scaling-up physical inactivity interventions in the Americas

AUTHORS

Macholz, A.[1], Soeteman, D.[2], Gomes, F.S.[2], Garcia-Larsen, V.[2]

AFFILIATIONS

[1]*Johns Hopkins Bloomberg School of Public Health*

[2]*Pan American Health Organization*

Background Rising non-communicable diseases (NCDs) and mental health conditions strain healthcare systems, with physical inactivity as a prominent risk factor. Despite the WHO-recommended, cost-effective interventions to reduce physical inactivity, implementation in the Americas has remained limited. Purpose This study quantifies the return on investment and the value of scaling-up these interventions in the Americas. Methods We used a population-attributable fraction approach to estimate direct healthcare costs of NCDs and mental conditions attributable to physical inactivity from 2020-2030. We assessed the effects of two physical inactivity interventions - population-wide communication campaigns and brief primary health care counseling – individually and in combination, on healthcare cost savings. Return on investment was calculated as healthcare savings per dollar invested in the intervention. Value of implementation was estimated by varying intervention coverage levels while accounting for current levels of implementation. Results Population-wide communication campaigns generated higher returns on investment than brief primary health care counseling or combination interventions. Returns per US$1 invested on that policy option were highest in the United States (US$1242 per dollar invested) and lowest in Belize (US$88 per dollar invested). The economic value of scaling-up physical inactivity interventions varied widely across regions, reaching up to INT$193 million in Honduras, INT$176 million in Haiti, INT$1.9 billion in Argentina, and INT$2.1 billion in Mexico and the United States. In countries where population-wide campaigns were already in place, including Colombia, Ecuador, and Guyana, further expansion did not yield cost savings due to additional costs without added value. Conclusions Active implementation of cost-effective physical inactivity interventions is likely to provide large health gains and improve financial efficiency in the Americas. Implications for Policy and Practice These findings offer robust economic evidence to support the prioritization and scale-up of physical inactivity interventions across the region. Funding Pan American Health Organization


Mexico

Strategy for Promoting Physical Activity and Healthy Lifestyles: Ruge UdeG

AUTHORS

Franco Avalos, C.J.[1], López y Taylor, J.R.[1], Gómez Aldrete, D.[1]

AFFILIATIONS

[1]*University of Guadalajara*

Background Physical inactivity is one of the main risk factors associated with the development of chronic noncommunicable diseases. Globally, 31% of adults and 80% of adolescents do not meet physical activity recommendations. In Mexico, 59% of adults are physically inactive, and approximately 68% of schoolchildren and adolescents do not meet the minimum physical activity recommendations. At the University of Guadalajara, a high prevalence of physical inactivity has been reported among high school students (83%) and college students (64%), highlighting the need for actions that promote physical activity. Program delivery or policy components Ruge UdeG is an institutional strategy that has promoted physical activity since 2018 in the university community and the state of Jalisco. The strategy is structured around three areas of intervention: 1) A series of conferences, forums, and webinars on physical activity and lifestyle 2) Ruta Leones 3) Celebration of Physical Activity Month. Each of the above areas is developed in face-to-face, virtual, and hybrid formats, highlighting the importance of developing partnerships with university departments, government agencies, educational institutions, and national and international networks. Evaluation and impact Since 2018, 451 events have been held in 41 municipalities in the state of Jalisco, with 132,785 participants, and 33 inter-institutional partnerships have been established. Conclusions An intersectoral strategy is viable for promoting physical activity in university and community settings. Practical implications Universities can be leaders in promoting physical activity in communities. Funding No external funding, supported by institutional resources from the University of Guadalajara.

The Implementation of Universal Design for Learning in Preschool Settings: A Proposed Systematic Review

AUTHORS

Nanthakumar, S.[1], Morales, A.[2], Irwin, J.[3], Tucker, T.[4], Heydon, R.[3], Franklin, M.[5], Cross, L.A.[5], Little, C.[5], Burke, S.[4]

AFFILIATIONS

[1]*University of Western Ontario*
[2]*PhD, Western University*
[3]*Western University*
[4]*Western University, Children's Health Research Institute*
[5]*Merrymount Family Support and Crisis Centre*

Background: Universal Design for Learning (UDL) is an evidence-based educational framework that promotes flexible and inclusive learning through multiple means of engagement, representation, and expression. In preschool settings, UDL strategies can be embedded within play-based learning and movement-focused activities to support children's participation, engagement, and learning. While UDL has been widely implemented within K-12 and postsecondary settings, its application in early childhood education contexts remains limited. Purpose: The purpose of the proposed systematic review is to synthesize the global literature on UDL implementation in early childhood education settings, with a focus on the use, feasibility, acceptability, reach, and sustainability of UDL strategies including those that support play-based and movement-integrated learning. Methods: Five relevant scholarly databases (ERIC, Education Database, PsycINFO, Scopus, and Web of Science) will be used to identify quantitative, qualitative, and mixed-methods peer-reviewed studies that report on implementation processes, strategies, and/or frameworks that reflect the application of UDL and/or UDL-aligned principles within early learning settings. Studies will be screened independently by two reviewers using Covidence. Data will be extracted and synthesized in accordance with PRISMA guidelines, and study quality will be assessed using the Mixed Methods Appraisal Tool. Hypotheses: It is anticipated that UDL implementation in early childhood education settings will vary widely across contexts, with mixed evidence regarding its use, feasibility, acceptability, reach, and sustainability. It is also expected that these outcomes will be shaped by educator-level practices and broader contextual factors. Practical Implications: The findings of this review could provide early childhood educators with evidence-informed guidance to design inclusive preschool environments that support meaningful participation for children. Findings will also inform future research and intervention development related to UDL in preschool settings. Funding: Social Sciences and Humanities Research Council of Canada (SSHRC) Partnership Engage Grant (#892-2025-1034).

The Length of the Participation Is Associated With the Retention in a University Extension Program

AUTHORS

Peinado Costa, G.[1], Lucas Rosa, J.[1], Cunha Santos Oliveira, J.[1], de Moraes, C.[2], Alexandre Trapé, Á.[1]

AFFILIATIONS

[1]Research and Studies Group in Physical Education and Collective Health. School of Physical Education and Sport of Ribeirao Preto, University of São Paulo.

[2]Study and Research Group on Physical Exercise for Special Health Conditions. School of Physical Education and Sport of Ribeirao Preto, University of São Paulo.

Background University extension programs (UEP) are a vital strategy for encouraging physical activity (PA) within the community. However, PA adherence is a complex and multifaceted process. Purpose To verify whether there is an association between the length of participation (LP) and retention in a UEP. Methods A cross-sectional study at UEP assessed participants in supervised PA sessions and their health status. LP were categorized as: 36months. Individuals with <50% attendance or those who withdrew were classified as "non-engaged", while those who continued were "engaged". Chi-square tested LP and retention association; effect size via Cramér's V; post-hoc via adjusted deviations, and 95% confidence interval for the percentage of maximum deviation from independence (PEM) via bootstrap; spurious associations controlled via permutation; power (1-β) via Monte Carlo. Results The 179 participants presented a mean age of 49 years, primarily female (68.2%), and 54.7% continue engaged in the program. LP distribution was 6months (12.2%), >12months (24.5%), >24months (21.4%), and >36months (28.6%). An association ($\chi 2(4)=79.7$;p0.99), and low probability (<0.001) of spurious association. Significant deviation from independence were identified among "engaged" with 24months (2.5[100.0;100.0]), and >36months (2.9[100.0;100.0]); and among "non-engaged" with 24months (-4.4[100.0;100.0]), and >36months (-5.0[100.0;100.0]), without a significant difference between "engaged" and "non-engaged" with >6months and >12months. Conclusions The robustness of the statistical techniques employed reduces the likelihood of inferential error, reinforcing the existence of an association between LP and retention, and emphasizing the 12-to-24-month period as a critical turning point for retention. Implications for Practice These findings emphasize the importance of strategies that promote sustained PA, making it an integral part of our daily routines. Funding Supported by the National Council for Scientific and Technological Development, Brazil.



Validation of Physical Activity Icon in the Mexican Physical Activity, Sedentary Behavior, and Sleep Guidelines

AUTHORS

Martínez, M.[1], Medina García, C.[2], Jauregui de la Mota, A.[2], Hernández Alcaraz, C.[2], González Álvarez, C.[2], Blas Miranda, N.B.[2], Argumedo García, G.[2]

AFFILIATIONS

[1]*National Institute of Public Health of Mexico*
[2]*Instituto Nacional de Salud Pública de México*

Background Icons in health guidelines enhance understanding and promote adoption. Validating them with the target population ensures clarity, sociocultural relevance, and greater impact. Objective The objective of this study was to validate the icon representing moderate-to-vigorous physical activity in the Mexican recommendations among adolescents aged 12–17 years. Methods A qualitative study was conducted with 24 adolescents aged 12–17 years from urban and rural areas of Morelos, Mexico. Four focus groups were conducted with equal numbers of female and male participants. A semi-structured guide focused on perceptions of the icon, its alignment with the recommendation, and the association between color and physical activity. Data were analyzed using categorical content analysis with a mixed deductive–inductive approach and constant comparison. MAXQDA 24 was used for coding and frequency analysis. Three analytical categories were established: (1) figure–recommendation association, (2) affective and socio-relational dimension, and (3) symbolic meaning of color. Results In the figure–recommendation association category, most adolescents correctly identified the physical action depicted and the suggested intensity, corresponding to moderate or vigorous physical activity. A minority presented partial (intensity confusion) or incorrect (conceptual) interpretations. Within the affective and socio-relational dimension, positive emotions predominated, mainly enjoyment and happiness. The icon was rarely associated with family or social interaction. No negative emotions were reported, suggesting motivational potential. Adolescents associated the color blue with physical activity, attributing meanings of movement and dynamism to it. Conclusion The icon representing moderate-to-vigorous physical activity demonstrated effective communicative performance among adolescents. Overall, the findings support its validity as a graphic tool for promoting physical activity in this population. Implications for Policy and Practice Findings support integrating validated icons into adolescent guidelines and school materials to enhance comprehension. Policies should prioritize user-centered design and culturally relevant visuals to reduce misinterpretation and promote active lifestyles. Funding OPS/OMS

Who meets physical activity guidelines? Social and anthropometric inequalities among Ecuadorian children

AUTHORS

Molina Cando, M.J.[1]

AFFILIATIONS

[1]*UGhent/UCuenca*

Background: Daily adherence to WHO recommended physical activity (PA) guidelines has multiple health benefits in children and adolescents. Limited data from low and middle-income countries are available regarding adherence to WHO PA recommendations. Purpose: This study aims to objectively measure PA intensities and explore associations with sociodemographic and anthropometric factors related to nonadherence to the WHO minimum PA recommendations. Two cross-sectional studies (2014–2019) were conducted in two Ecuadorian populations differing in poverty level and residency (Cuenca: 66% live in urban areas, and 38.2% have unsatisfied basic needs; Quininde, 76.4% live in rural areas and 91% have unsatisfied basic needs). Waist-worn accelerometers were used to measure daily PA, standardized questionnaires were used to assess sociodemographic variables (age, sex, ethnicity, and socioeconomic status), and anthropometric (weight, height, waist circumference) measurements were taken. Multivariable regression was used to assess the relationship between sociodemographic and anthropometric factors with PA in each study population. Results: The study included 650 participants in Cuenca (mean age 9.1±2.9) and 985 in Quinindé (8.3±0.4). In both settings, boys were more likely than girls (Cuenca: adj. OR 3.09, 95% CI 2.17–4.39; Quinindé adj. OR 5.63, 95% CI 4.03–7.85) to achieve the WHO PA guidelines. More affluent participants were much less likely to meet this recommendation than their poorer counterparts in both settings. In Cuenca, a higher waist circumference was inversely associated with meeting WHO daily PA recommendation (adj. OR 0.96, 95% CI 0.94–0.98), whereas in Quinindé, adherence to WHO guidelines was more likely in non-Mestizo than Mestizo children (adj. OR 1.45, 95% CI 1.02–2.07). Conclusions: The findings suggest that anthropometric differences and sociodemographic disparities influence the attainment of WHO PA recommendations in Ecuadorian children. Implications for Policy and Practice: Targeted, context-sensitive policies should address gender and socioeconomic disparities to increase children’s compliance with WHO physical activity recommendations.

GoPA!

Japan

Overview of physical activity in Japan: Results from the 2025 GoPA! Country Card

AUTHORS

Inoue, S.[1], Amagasa, S.[2]

AFFILIATIONS

[1]*Tokyo Medical Universtiy*

[2]*Graduate School of Public Health, Teikyo University*

Background: In Japan, noncommunicable diseases account for approximately 85% of all deaths, emphasizing the importance of understanding physical activity and the related policy and research context. Purpose: To present an overview of PA in Japan based on the 2025 GoPA! Country Card and to derive policy-relevant implications. Methods: Data for the Global Observatory for Physical Activity—GoPA! Country Card were obtained from national datasets, peer-reviewed literature, and international databases. The national prevalence of physical activity was estimated using the Global Physical Activity Questionnaire (GPAQ) data obtained from the 2020 National Sports-Life Survey conducted by the Sasakawa Sports Foundation. Results: It is estimated that 45% of Japanese adults do not meet global physical activity recommendations. The National Health and Nutrition Survey has provided longitudinal data for over 30 years, documenting trends in step counts through pedometers and the prevalence of habitual exercise. These data have been used to evaluate the impact of national health promotion initiatives, including Health Japan 21, which aims to increase population-average daily step counts (to 8,000 steps/day for adults aged 20–64 years and 6,000 steps/day for older adults) and the prevalence of habitual exercise (to 30% for adults and 50% for older adults) by 2035. In 2024, Japan released the fourth edition of its national physical activity guidelines. While the GoPA! Capacity Pyramid demonstrates strong capacity across all levels in Japan, persistent gender disparities in physical activity participation and research remain as critical challenges. Conclusions: These findings demonstrate high capacity for physical activity surveillance, policy, and research, while highlighting the need to address ongoing disparities, particularly with regard to gender and adherence to physical activity recommendations. Implications for Policy and Practice: Continued national efforts are needed to maintain surveillance systems, implement policies, and strengthen initiatives to promote physical activity.

GoPA!

Australia

Physical activity practice and policy in South Africa: GoPA highlights evidence progress, gaps and missed

AUTHORS

Kolbe-Alexander, T.[1], Lambert, E.(.[2]

AFFILIATIONS

[1]*University of Southern Queensland*

[2]*UCT Research Centre for Health through Physical Activity, Lifestyle and Sport (HPALS), Division of Research Unit for Exercise Science and Sports Medicine, University of Cape Town, Rondebosch, South Africa*

Background: South Africa (RSA) is an upper-middle income country, with 69% of the population urbanised and a 90% adult literacy rate. It is an inequitable country based on a GINI coefficient of 0.63, with 39% unemployment. Non-communicable diseases account for more than 50% of all deaths. Purpose: The primary aim of the RSA 2025 GoPA! Report Card was to comprehensively assess the national capacity for physical activity (PA) promotion and to evaluate changes from 2015. Methods: This report utilized the standardized GoPA! framework, assessing national status in Surveillance, Policy, and Research. Data on PA prevalence for adults were drawn from national surveys, utilizing instruments such as GPAQ. Research metrics were based on PubMed updates, and contribution to worldwide PA research from 1950 to 2023. Policy assessments tracked the existence of national PA plans and relevant strategic documents from government websites and grey literature. Results: National PA prevalence estimates for adults showed slight improvement, from 53% in 2015 to 55% in 2025. While surveillance capacity was based on national surveys including PA in all three reporting cycles, RSA has no scheduled or routine PA surveillance. The 2025 report indicates a lack of both a national PA policy/plan and recommendations, despite related strategic plans for NCDs and sport. Crucially, PA research capacity demonstrated significant improvement, ranking 32nd worldwide in 2015 and reaching 26th in 2025. Conclusion: RSA has made notable strides in bolstering its PA research output, demonstrating increasing global leadership. However, this is tempered by inconsistencies and apparent gaps in formalized, explicit national PA policy and recommendations. Implications for Policy/ Practice: Greater coherence between policy and implementation is needed to increase equitable opportunities for PA for all. In addition, where PA is undertaken as a matter of necessity, it is incumbent on authorities to create a supportive and equitable environment.

GoPA!

Japan

Results from Japan’s 2025 GoPE! Country Card

AUTHORS

Amagasa, S.[1], Inoue, S.[2]

AFFILIATIONS

[1]*Department of Health Promotion and Behavioral Sciences, Graduate School of Medicine and School of Public Health, Kyoto University*

[2]*Department of Preventive Medicine and Public Health, Tokyo Medical University*

Background: In 1947, the Ministry of Education established its first national curriculum guidelines for school physical education (PE). These guidelines defined the purpose of PE as an education aimed at developing humanity through exercise and hygiene, and enabling students to recognize the value of physical activity (PA) in life. Since then, the curriculum has been revised to reflect changes in society and educational contexts, leading to the current form of PE. Purpose: We aimed to describe the current status of PE and PA among children and adolescents in Japan. Methods: Data were compiled using the GoPE! standardized protocol for the indicators of PA prevalence, PE policy and surveillance, and PE and school-based intervention research. These data were validated by the country representatives. The national prevalence of PA for adolescents was estimated using the Health behaviour in School-aged Children (HBSC) data obtained from the 2019 National Sports-Life Survey. Results: It is estimated that 81% of Japanese junior high school students do not meet global PA recommendations. In Japan, the implementation of PE in schools is based on a legal and administrative framework including the School Education Act, the Regulation for Enforcement of the School Education Act, and the National Curriculum (Course of Study). PE is mandatory in both primary and secondary education, with a minimum number of class hours guaranteed (primary education: 45 minutes/lesson, 90-105 lessons/year. secondary education: 50 minutes/lesson, 105 lessons/year). The National Survey has been conducted to evaluate PE class and initiatives for promoting PA and physical fitness in each school. There is limited research on PE and school-based PA interventions. Conclusions: The GoPE! Japan Country Card reveals high capacity for PA policy and surveillance. Implications for Policy and Practice: Continued national efforts are needed to maintain surveillance systems, implement policies, and strengthen initiatives to promote PA.

GoPA!

Ukraine

Youth–adult physical activity paradox in Ukraine: GoPA! and GoPE! evidence

AUTHORS

Pavlova, I.[1], Mejía-Grueso, J.[2], Cristão, R.[3], Martins, J.[3], Ramírez Varela, A.[4]

AFFILIATIONS

[1]*Ivan Boberskyj Lviv State University of Physical Culture*

[2]*Global Observatory for Physical Activity – GoPA!*

[3]*Centro de Estudos em Educação, Faculdade de Motricidade Humana e UIDEF, Instituto de Educação, Universidade de Lisboa*

[4]*Department of Epidemiology, School of Public Health, The University of Texas Health Science Center at Houston (UTHealth Houston); Department of Pediatrics, McGovern Medical School, The University of Texas Health Science Center at Houston (UTHealth Houston); Center for Health Promotion and Prevention Research, The University of Texas Health Science Center at Houston (UTHealth Houston); Institute for Implementation Science, The University of Texas Health Science Center at Houston (UTHealth Houston)*

Background: Equity-oriented physical activity (PA) action depends on visibility and monitoring systems that can detect who is being left behind. In disrupted contexts, gaps between policy intent and real-world delivery can widen quickly. Purpose: To characterize Ukraine's youth–adult PA mismatch using Global Observatory for Physical Activity (GoPA!) and Global Observatory for Physical Education (GoPE!) evidence, and to identify priorities for equitable monitoring, capacity strengthening, and actionable policy. Methods: We conducted a descriptive, comparative analysis using the most recent available Ukraine GoPA! and GoPE! Country Cards, supplemented by trends noted across prior reporting cycles where available. We compared youth and adult estimates to identify mismatches, examined equity-relevant patterns, and assessed gaps in surveillance periodicity and school-sector evidence. Results: GoPA! reports high adult PA prevalence at 87%, while GoPE! shows low adolescent compliance at 23% with a persistent gender gap (boys 29% vs girls 17%), indicating adolescence as an equity-sensitive drop-off point. Across the decade, PA policy and reporting capacity outpaced routine, equity-sensitive surveillance. GoPE! also points to limited surveillance systems and school-based intervention evidence to guide context-specific improvements in physical education (PE) and school-based (PA). Conclusions: High adult estimates can mask low, inequitable adolescent PA when surveillance is irregular and school-sector evidence is thin, limiting the ability to design, target, and track equity-oriented action. Results point to aligning education-sector implementation monitoring with health-sector PA surveillance using a shared indicator set and coordinated reporting cycles. Implications for Policy and Practice: To translate global evidence into local impact, Ukraine needs a stronger alignment between school-based activity and public health monitoring. Monitoring should routinely report inequities by gender, displacement status, geography, and disability so gaps are detected early rather than after they widen. Scalable implementation monitoring and evaluation capacity can support measurable improvements in PA, PE delivery, even under constrained conditions.

Germany

“Move–Mix it up–Make it fun”: Breaking down physical activity guidance for health promotion

AUTHORS

Brummer, J.[1], Nguyen, D.T.[2], Herbolsheimer, F.[2], Illmann, M.[3], Steindorf, K.[2]

AFFILIATIONS

[1]Division of Physical Activity, Cancer Prevention and Survivorship, German Cancer Research Center (DKFZ), Heidelberg

[2]Division of Physical Activity, Cancer Prevention and Survivorship, German Cancer Research Center (DKFZ), Heidelberg, Germany

[3]Division of Physical Activity, Cancer Prevention and Survivorship, German Cancer Research Center (DKFZ), Heidelberg, Germany; Medical Faculty, Heidelberg University, Heidelberg, Germany

Background Physical activity is critical to human health and well-being. Therefore, public health bodies across the globe publish physical activity guidelines. However, typically, these guidelines are relatively complex and numerically detailed, making them difficult to communicate to the public. Purpose To break down physical activity guidance into a simple and memorable slogan, and to create an accompanying infographic aimed at its visualization. Methods A multidisciplinary research team reviewed scientific evidence on physical activity and health to distill key and actionable recommendations aimed at the general adult population. These recommendations were iteratively translated into evidence-informed and concise candidate slogans through team-based discussions and subsequently complemented and benchmarked against suggestions generated by several large language models. Emphasis was placed on clarity, ease of recall, and relevance for sustained engagement. The slogan was further translated into a visually engaging infographic. A pilot study evaluating the materials is currently in preparation. Results This process resulted in the final slogan “Move – Mix it up – Make it fun.” “Move” promotes engagement in any form of physical activity, highlighting the benefits of even small increments in activity, without restricting the message to structured exercise. “Mix it up” emphasizes the value of combining different types of activity, e.g., aerobic and muscle-strengthening activities. “Make it fun” encourages individuals to select activities they enjoy, which may support long-term participation in physical activity. The accompanying infographic prioritized visual appeal, inclusivity, and intuitive understandability. Conclusions Combining human expertise with artificial intelligence resulted in a slogan and an accompanying infographic aimed at breaking down complex physical activity guidance. Implications for Policy and Practice The materials represent scalable communication tools with the potential to support public engagement in physical activity and its integration into everyday life. Further evaluation of their impact is ongoing. Funding Not applicable.

Canada

“No one says you died of inactivity”: Exploring Social Climate of Physical (in)activity in Canada

AUTHORS

Sosna, D.[1], Faulkner, G.[2], Gierc, M.[2]

AFFILIATIONS

[1]*University of British Colombia*

[2]*School of Kinesiology, University of British Columbia, Vancouver, BC, Canada*

Background: A common call-to-action in physical activity (PA) policies or strategies involves altering social norms around being active. WHO’s (2018) Global Action Plan for Physical Activity emphasizes the importance of social norms and attitudes in establishing an active society. Canadian research has conceptualized these factors as social climate, defined as collective norms, attitudes and beliefs regarding PA. However, little is known regarding awareness and understanding of this concept amongst individuals in the physical activity and recreation sector. Purpose: Explore Canadian physical activity champions’ perspectives on the broad concept of social climate, including their interpretations of the term and the relative importance of measurement and intervention on social climate to increase PA. Methods: Semi-structured qualitative interviews (45-60 minutes in length) were conducted with 13 senior executives of national PA-related organizations. Interviews were analyzed using an inductive codebook thematic analysis. Results: While the social climate was consistently acknowledged as an important influence on population PA, there was little consensus in definition. Social climate was often described in nebulous terms, with “community” and “relationships" commonly referenced. Value was seen in intervening and measuring changes in this otherwise abstract definition of social climate. Changing the social climate was seen as instrumental in improving activity levels across most organizations. Conclusion: Social climate appears to be a valued concept for PA champions. Further research is needed in conceptualizing and reaching consensus on a definition of this construct before validation work is attempted in its measurement. Implications for Policy and Practice: Developing a globally relevant measure of social climate may support population-level interventions that seek to “create positive social norms” in Canada and globally. Funding: SSHRC Explore Grant

United Kingdom

24-hour movement behaviours and cardiovascular mortality in cancer survivors: A compositional analysis in UK Biobank

AUTHORS

Mitchell, J.J.[1], Blodgett, J.M.[1], Biswas, R.K.[2], Koemel, N.[2], Ahmadi, M.[2], Fisher, A.[1], Stamatakis, E.[2], Hamer, M.[1]

AFFILIATIONS

[1]*UCL*
[2]*University of Sydney*

Background: Cancer survivors face elevated risks of mortality from non-cancer causes, in particular cardiovascular disease (CVD). The potential importance of physical activity (PA) and harms of sedentary behaviour (SB) for CVD-mortality is less-established in this at-risk population. Purpose: To assess, using a compositional approach, the importance of 24-hour daily movement behaviour, SB and sleep, for mitigating CVD-mortality amongst cancer survivors. Methods: Participants with previous cancer diagnoses were drawn from the UK Biobank accelerometry sub-study. Daily movement, captured with a wrist-based accelerometer were categorised into moderate-to-vigorous PA (MVPA), light PA (LPA), SB, and sleep duration using validated algorithms. CVD-mortality was identified from linkage with health-records. Associations were assessed using Fine-Gray Cox proportional-hazards models and adjusted for demographic, health and lifestyle covariates. Based on the sample's average day, isotemporal substitution was used to estimate how changes to 24-hour movement attenuate risk of CVD-mortality. Results: A total of n=6,158 individuals with a history of cancer were followed for a median of 8.0 years (quartiles 1-3: 7.4-8.5) in which n=500 (8.2%) mortality events occurred (n=118, CVD-mortality). Greater MVPA, in place of any other behaviour, was consistently associated with lower CVD-mortality risk. For example, a 10% lower risk was observed after MVPA theoretically replaced 7 minutes (mins)/day of SB (Hazard ratio (HR): 0.91, (95% Confidence interval: 0.86-0.95)), 9 mins/day of LPA (HR: 0.90, 0.83–0.97), or 11 mins/day of sleep (HR: 0.90, 0.83–0.97). Alternatively, a 10% lower risk required replacement of 29 mins/day of SB with sleep (HR: 0.90, 0.84-0.96). Associations proved asymmetric, with exponentially increasing risk from replacing MVPA. Conclusions: Among cancer survivors, even modest changes in daily MVPA and sleep were associated with lower risk of CVD-mortality. Implications for Policy and Practice: Cancer survivorship care should emphasise achievable changes to daily activity, including sleep, to support cardiovascular health. Funding: CRUK:PRCPJT-Nov23/100005 ; BHF:SP/F/20/150002

United States

Active Travel Among Rural University Employees: Barriers and Facilitators Across Seasons and Active Travel Levels

AUTHORS

Scruggs, P.[1]

AFFILIATIONS

[1]*University of Idaho*

BACKGROUND Sustained and intermittent bouts of physical activity are associated with health benefits, and active travel (AT) offers opportunities for both. Many factors are associated with AT engagement; however, AT research leans toward urban centric. In contextually different rural settings, AT may be shaped differently. PURPOSE To examine AT engagement in relation to perceived barriers and facilitators and to assess whether these patterns vary across seasons and AT levels. METHODS A repeated cross-sectional design was employed. Participants (N=510; 39% male; 74% aged 30-59 years) from a rural inland northwestern U.S. university completed a Qualtrics survey (response rate=31%) in winter, spring, summer, and fall. Survey items assessed AT engagement (modified IPAQ), barriers, and facilitators. Active travelers were categorized as low, moderate, or high based on weekly AT minutes. Kruskal-Wallis H tests with Dunn post hoc analyses and chi-square tests ($p<0.05$) were used to examine barrier and facilitator differences across AT level and season. RESULTS Overall barrier count decreased with increasing AT level ($p<0.05$) and remained stable across seasons, whereas facilitator count increased with AT level ($p<0.05$) and remained stable for seasons. Top barriers were highly consistent across AT levels and seasons, with weather being the only barrier varying significantly by season. Facilitators played a more prominent role in differentiating AT levels ($p<0.05$) than in explaining seasonal differences, except for stress reduction (winter facilitator) and pleasant weather (spring facilitator, $p<0.05$). CONCLUSION In this rural context, AT engagement was more strongly differentiated by facilitators than barriers, with higher AT levels characterized by a greater number and stronger clustering of specific facilitators. Barriers were largely consistent across AT levels and seasons, with weather as the sole seasonally sensitive barrier. IMPLICATIONS FOR POLICY AND PRACTICE Rural setting interventions may be more effective by prioritizing facilitator strengthening and broadening, rather than focusing solely on minimizing barriers.



Canada

Adapting primary care-based physical activity interventions: Application of Semi-Automated Machine-Assisted Review and Topic Modeling (SMART)

AUTHORS

Wassef, K.[1], Wassef, K.[1], Schuster, T.[1], Barnett, T.[1]

AFFILIATIONS

[1]*McGill University*

Background: Physical activity interventions improve physical health and contribute to non-communicable disease prevention. However, these often need to be adapted, and implementation researchers and clinicians lack clear guidance on how to adapt these interventions for their contexts. While conventional literature reviews pose limitations in transparency, replicability, and scalability, the SMART (Semi-Automated Machine-Assisted Review and Topic modeling) methodology offers an innovative approach that combines computational topic modeling with structured evidence synthesis, providing a faster, transparent, and updatable alternative to conventional methods. Purpose: Assess the utility of SMART in identifying the scope and effectiveness of strategies used to adapt physical activity interventions in primary care. Methods: We applied the SMART approach to map articles from OpenAlex that describe adaptation of primary care-based interventions for promoting physical activity or decreasing sedentary behaviours among adults at risk of non-communicable disease. Data will be analyzed using Latent Dirichlet Allocation (LDA) topic modeling to algorithmically cluster documents into topics. The resulting topic clusters will undergo content analysis to characterize their relevance. We will use the Expert Recommendations for Implementing Change (ERIC) taxonomy for categorizing the strategies identified. We will then use the Reach, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) framework to classify their effectiveness. Results: We found 47/73 ERIC strategies related to adaptation from which we generated a list of topic terms to enable relevant mapping of topic distributions using LDA. We identified 1800 unique records on OpenAlex. Preliminary cluster analyses produced informative visualizations of implementation outcome measures and intervention groups across primary care literature. Conclusions: This review offers the first systematic assessment of adaptation in primary care, which implementation researchers and primary care providers may consider for adapting physical activity interventions. Implications for Policy and Practice: We demonstrate the utility of SMART in informing primary care guidelines and practice based on the current state of knowledge.

Sweden

Advancing relational understandings of gendered inequities in school physical activity

AUTHORS

Hoy, S.[1]

AFFILIATIONS

[1]*The Swedish School of Sport and Health Sciences*

Despite decades of intervention and monitoring, research continues to show persistent gendered inequities in school-based physical activity (PA). These patterns reappear across settings and national contexts, suggesting that prevailing approaches, often framed around individual motivation or assumed behavioural shortcomings, fall short of accounting for these disparities. This presentation examines gendered PA inequities through a relational perspective, foregrounding how gender, social position, and school structures co-constitute adolescents' movement possibilities. Two empirical studies illustrate this: a cross-sectional intersectionality analysis of PA across segregated contexts and an ethnographic study exploring daily negotiations of PA in four secondary schools. The cross-sectional study combined accelerometry, surveys, and registry data (adolescents=1,139) to examine how PA expresses intersecting social positions and school segregation. The ethnographic study used 720 hours of fieldwork and 86 interviews to explore how PA is enacted, constrained, and made meaningful within school routines, norms, and material arrangements. Across both cases, gendered inequities were expressed not as inherent differences between groups but as configurations of relational dynamics involving school logics, social hierarchies, and embodied histories. PA inequities were patterned by intersecting positions, with girls in segregated and disadvantaged contexts disproportionately constrained. Expectations of being a "good" student, sport cultures, social visibility, and material access shaped who could move, how, and with what consequences. These findings show that inequities are produced/enacted between actors, norms, spaces, and institutional priorities, far from individual choices alone. By shifting from individualised explanations to relational ontologies, this work problematizes dominant narratives of "getting girls more active" and instead shows how gendered practices take shape through the interplay of context, agency, and power structures. A relational approach opens conceptual and practical avenues for developing school strategies that attend to social justice, context sensitivity, and the lived realities of diverse young people, rather than relying on behavioural fixes or universalised PA prescriptions.

South Africa

Assessing Community Health Workers' acceptability of a physical activity brief intervention protocol: a pilot study

AUTHORS

Dikgomo, K.[1], Mapukata, N.[2], Kholvadia, A.[3], Moosa, S.[4]

AFFILIATIONS

[1]*Nelson Mandela University*

[2]*Division of Public Health Medicine, University of Cape Town*

[3]*Department of Human Movement Science, Nelson Mandela University*

[4]*Department of Family Medicine and Primary Care, University of the Witwatersrand*

Physical activity is a priority focus in managing noncommunicable chronic disorders. The role of Community Health Workers (CHWs) as health promoters in under-resourced communities such as Soweto in South Africa is currently being examined as part of a doctoral study. The aim of this study was to evaluate the effect of ongoing support on CHWs' acceptability of implementing a physical activity brief intervention. CHWs at two primary healthcare facilities in Soweto, South Africa, received structured training in promoting physical activity (PA). Thereafter they were separated by facility into a Control and Intervention group. The intervention group (n=15, 47.8±7y, 80% women) received ongoing support from a Biokineticist (a clinical exercise specialist) over a 12-week period while the control group (n=26, 44.5±7.7y, 96% women) did not. The intervention comprised individualised supervisory support during home visits, group-based refresher sessions, and provision of PA resources. Acceptability was assessed after 12 weeks, to compare supervised and unsupervised implementation contexts. Cross-sectional data were generated using an adapted version of Sekhon, Cartwright & Francis' Theoretical Framework of Acceptability questionnaire. In addition to their constructs, we assessed CHWs' perception of workload and the value this added to their patients. As the data were not normally distributed (Shapiro–Wilk test, p0.05), which remained high in both groups. The modal response for overall acceptability was "acceptable" (Intervention Group: Median=4, IQR=1; Control Group: Median=4, IQR=0). Ongoing Support did not adversely affect CHWs' acceptability, suggesting that task-shifted PA interventions are acceptable with or without intensive support input. While acceptability of PA promotion among CHWs was high irrespective of support input by a Biokineticist in this study, it may support implementation quality and warrants consideration within District Health Systems.

United States

Association between different screen devices use and sleep in children

AUTHORS

Amaral de Andrade Leao, O.[1], Miranda Tassitano, R.[2], de Oliveira Nava, D.[3], Rodrigues Domingues, M.[4], Homsi Damaso, A.[3], Freitas Silveira, M.[3], Curi Hallal, P.[2]

AFFILIATIONS

[1]*University of Illinois at Urbana Champaign*

[2]*Department of Health and Kinesiology, University of Illinois Urbana-Champaign, Champaign, Illinois, United States of America*

[3]*Post-Graduate Program in Epidemiology, Federal University of Pelotas, RS, Brazil*

[4]*Post-Graduate Program in Physical Education, Federal University of Pelotas, RS, Brazil*

Background: Child screen time has been increasing over the last years, raising concern on how this behavior could affect different health outcomes. This impact can also be different according to the devices type. Purpose: To evaluate the association between the use of different screen devices and sleep time and efficiency in children. Methods: This study used data from the 2015 Pelotas (Brazil) Birth Cohort at the 6-7 years follow-up. Screen time was measured using a parent-report survey for different devices (TV, smartphone, tablet/iPad, computer, and videogames), in hours per day. Child sleep was measured over a week through wrist-worn accelerometers, and sleep time window (STW -min/day), total sleep time (TST -min/day), and sleep efficiency (TST/STW - %) were calculated. The association between each device and the sleep variables was estimated using linear regression. Results: We found no associations between computer, tablet/iPad and videogame use with sleep. Television time was negatively associated with TST (β: -1.00, 95%CI: -1.88; -0.12) and STW (β: -1.46, 95%CI: -2.44; -0.48). Smartphone use was negatively associated with TST (β: -1.26, 95%CI: -2.17; -0.35) and STW (β: -2.51, 95%CI: -3.51; -1.51). However, it was positively associated with sleep efficiency (β: 0.002, 95%CI: 0.001; 0.002). Conclusions: The results of this study suggest that despite some negative associations, the magnitude of these associations was small, meaning that, at least cross-sectionally, screen use does not appear to be affecting child sleep time and efficiency. Implications for Policy and Practice: The results of the study can help improve current screen-time guidelines by adding empirical data on device type. Funding: The Pelotas Birth Cohort (2015) 6-7 years follow-up received funding from the Department of Science and Technology of the Ministry of Health, Instituto Todos Pela Saúde, Celer Biotecnologia SA, FAPERGS, Brazilian Public Health Association (ABRASCO), and CNPq.

Brazil

Barriers to Beach Access and Physical Activity Among Coastal University Students in Brazil

AUTHORS

Martins, C.[1], Martins, C.[2], Doopiat, L.[2], Wosniak, V.[2], Mélo, T.[2], Ribeiro, E.[2]

AFFILIATIONS

[1]*Universidade Federal do Paraná (UFPR)*
[2]*UFPR*

Background: The beach is a key public space for leisure, physical activity, and health, integrating territorial, social, and environmental aspects. Understanding barriers and facilitators is essential to inform policies that promote physical activity on beaches. Purpose: This study examined the relevance, frequency, preferences, and barriers to beach leisure among university students in Brazil's coastal region. Methods: The study involved students from the Federal University of Paraná in Matinhos, Brazil. A 21-item online questionnaire assessed sociodemographic profile, lifestyle habits, beach use, and barriers. Results: A total of 258 students participated, 65.5% of whom were women, with a mean age of 25.6 ± 7.65 years. Most were enrolled in evening courses (80.2%), and 53.1% worked 40 hours per week. On a scale from 0 to 10, women assigned greater importance to the beach (7.22 ± 2.59) compared to men (6.64 ± 2.83; $p = 0.05$) but visited 13% less frequently ($\chi^2 = 10.3$; $p = 0.02$). Regardless of sex, 87% visited the beach fewer than 10 times during the summer, and 82.5% did so outside the summer season. When visiting, 59.8% engaged in sedentary behavior. The main barriers were lack of time (59.2%) and lack of infrastructure and access (9.7%). Women exclusively reported barriers such as lack of public safety (1.8%) and household chores (3.5%). Conclusions: The study concludes that the beach is not an accessible leisure option for university students in coastal areas, especially for women. When accessed, it is primarily used for sedentary activities. Implications for Policy and Practice: Strategies are needed to optimize work hours, such as improved income distribution. Gender equity policies and the implementation of public infrastructure could enhance participation in physical activity on beaches.

France

Behaviour Change Techniques in Sports Club Health Interventions: Alignment with the HPSC Model

AUTHORS

Vuillemin, A.[1], Ozbolt, P.[2], Van Hoye, A.[3], Johnson, S.[3], Nilar Win, N.[3], Barros, K.[3], Vuillemin, A.[2]

AFFILIATIONS

[1]*Université Côte d'Azur*

[2]*Université Côte d'Azur, LAMHESS, France*

[3]*UMR1319 INSPIIRE, Université de Lorraine, France*

Background: Sports clubs are important community settings for health promotion. The Health Promoting Sports Club (HPSC) model provides a comprehensive framework for embedding health promotion across system levels and health determinants, however, evidence on how specific Behaviour Change Techniques (BCTs) are applied within this framework remains limited. Purpose: This study aimed to examine the use, reporting, and diversity of BCTs in sport-based health interventions and to explore their alignment with the HPSC model using a structured, theory-informed approach. Methods: First, a literature review examined the extent to which BCTs were explicitly reported in sport-based health interventions. Second, twenty intervention trials identified in Hodder et al. (2025) were retrospectively coded using the Behaviour Change Technique Taxonomy v1. Coding was conducted independently by two researchers, with inter-rater reliability assessed using Cohen's kappa. Results: Only two interventions explicitly reported the use of BCTs in the literature review, indicating a substantial gap in transparent reporting. Across the 20 trials, 14 distinct BCTs were identified, reflecting a limited application of the 93 techniques included in the BCT Taxonomy v1. Most identified BCTs belonged to the groups Feedback and monitoring, Shaping knowledge, Repetition and substitution, Social support, and Goals and planning. Inter-rater reliability ranged from fair to almost perfect ($\kappa = 0.22–0.88$). Conclusions: Sports clubs-based health interventions apply a narrow range of BCTs, often implicitly and with limited theoretical transparency. More explicit, systematic application and reporting of BCTs is needed to strengthen health promotion practice in sports clubs. Implications for Policy and Practice: Applying BCT's alongside the HPSC model can support practitioners and policymakers in designing more explicit, theory-driven, and scalable health promotion interventions in sports club settings. Funding: research is funded through a partnership between Santé publique France, the Ministry of Sport, Youth and Community, Université Côte d'Azur and the University of Lorraine.

Canada

Characterizing balance exercise content in Canadian community group fall prevention programs: A multi-method study

AUTHORS

Sibley, K.[1], Miller, C.[1], Zacharias, E.[1], Stern, K.[2], Lochan-Aristide, M.[3], Glasgow, G.[4], Oates, A.[2], Bouchard, D.[5]

AFFILIATIONS

[1]*University of Manitoba*
[2]*University of Saskatchewan*
[3]*University of Ontario Institute of Technology*
[4]*Memorial University of Newfoundland*
[5]*University of New Brunswick*

Background: Balance-challenging exercises are a critical feature of effective fall prevention programs. Existing descriptions of Canadian programs are based on instructor reports and perceptions, limiting understanding of how balance is challenged in practice. Purpose: Comprehensively describe balance exercise characteristics in four Canadian programs offering in-person group exercise classes for community-dwelling older people with an aim to reduce falls. Methods: A trained investigator conducted in-person class observations documenting exercises performed (sequence, duration, and cues provided) and incidence of six established indicators of balance exercise intensity (e.g. stepping). Post-class, instructors and exercisers rated balance exercise intensity of the class on a 1 (low) to 5 (high) scale. We coded and categorized exercises, and quantified dedicated balance exercise duration, intensity indicators, and ratings with descriptive statistics. Results: We observed 25 classes (3-11/ program) with 321 exercisers (7-35/ class). Thirty-two types of balance exercises were observed; single leg stance variations (16 classes, 64%), walking patterns (12 classes, 48%) and sit to stand variations (12 classes, 48%) were most common. Mean dedicated balance exercise time was 8.5 minutes (range 0-20), representing 25% of total exercise time on average. Mean number of indicators of balance intensity observed in a class, standardized by number of exercisers, was 2.1 (range 0.56- 3.36); reaching/ grabbing or stepping were most common. Mean instructor rating of class balance exercise intensity was 3.4/5, while mean exerciser rating (n=291) was 3.3/5. Conclusions: The low amount of dedicated balance exercise time is unlikely to provide sufficient dose for optimal fall prevention. While ratings suggested moderate class balance exercise intensity, a low quantity of balance exercise intensity indicators were observed. Implications for Policy and Practice: Continued efforts are warranted to support Canadian programs to offer optimal community fall prevention exercise programs. Funding: Canadian Institutes of Health Research

Norway

Comparing Adherence to Hip and Wrist-Worn Accelerometer Protocols in Adults: A JA PreventNCD Pilot Study

AUTHORS

Husøy, A.[1], Dalene, K.E.[2], Ekelund, U.[3]

AFFILIATIONS

[1]*The Norwegian Institute of Public Health*

[2]*Department of Chronic Diseases, Norwegian Institute of Public Health, Oslo, Norway*

[3]*Oslo Research Centre for Physical Activity and Population Health, Department of Sports Medicine, Norwegian School of Sport Sciences, Oslo, Norway*

Introduction: The Joint Action PreventNCD project is the EU's largest initiative to reduce the burden of non-communicable diseases. A core objective (Work Package 8) is harmonizing European monitoring systems for physical activity (PA) and sedentary behavior (SB). However, the choice of accelerometer wear protocol remains a subject of debate, as researchers must balance measurement accuracy with participant adherence. Aims: To compare participant adherence between two common accelerometer protocols – hip-worn (waking hours) and non-dominant wrist-worn (24/7). Methods: In the Norwegian part of this pilot study, a random sample of 1,000 adults (aged 20-69 years) will be recruited. Participants will wear two tri-axial accelerometers (Axivity AX3) simultaneously for seven consecutive days: one on the right hip (waking hours) and one on the non-dominant wrist (24/7). Data are processed using the GGIR package in R. Adherence will be assessed by comparing the mean number of valid days and total wear time between protocols using various minimum wear-time thresholds (e.g., 8–12 hours for hip; 16–20 hours for wrist). Results: Data collection will conclude by Q3 2026. The analysis will compare the percentage of participants meeting validity criteria for both protocols. Evaluations will focus on the "adherence gap" – the difference in data yield between the protocols – and how different wear time thresholds impact the final sample size and measurement reliability. Conclusions: This study will identify which protocol yields the highest participant adherence. The results of this comparison can inform future population-based physical activity surveillance studies. Implications for Policy and Practice: Establishing a harmonized, high-adherence protocol is essential for creating a reliable European monitoring system. This ensures that future cross-country comparisons of PA and SB are feasible, representative, and capable of informing effective NCD prevention strategies. Funding: This project has received funding from the European Union’s EU4Health programme under grant agreement No 101128032.

Germany

Content analysis of the quality of ChatGPT outputs on physical activity recommendations for workplace settings

AUTHORS

Lange, M.[1], Heub, A.[1], Adomat, S.[2], Löwe, A.[1]

AFFILIATIONS

[1]*IST University of Applied Sciences*
[2]*IST-University of Applied Sciences*

Background Physical activity (PA) is a core component of workplace health promotion at national and international levels. Generative artificial intelligence (AI), such as ChatGPT, may support the generation and implementation of PA recommendations in workplace settings. At the same time, evidence highlights limitations of generative AI, including hallucinations, overly generic content, and distortions. Purpose This study assessed the quality of generative AI outputs and evaluate their content relevance (CR), completeness (CS), comprehensibility (CB), health impact (HI), and practical applicability (PrA) for workplace PA recommendations. Method: A total of 25 ChatGPT outputs with increasing prompt complexity were evaluated by n = 7 experts using five-point Likert scales ranging from no to full agreement across CR, CS, CB, HI, and PrA. The content was additionally structured following qualitative content analysis, and interrater reliability (IRR) was calculated for each output. Results The findings revealed heterogeneous content quality. Simply formulated prompts resulted in relevant and comprehensible recommendations with higher overall agreement. In contrast, increasing prompt complexity, such as the inclusion of specific age groups, contextual workplace factors, or chronic conditions, led to more unspecific and some cases wrong outputs with lower agreement. Overall IRR indicated strong agreement (Kendall's $W = 0.853$, $p < 0.001$). Conclusions ChatGPT is a useful tool for workplace PA promotion when applied to generic and less complex prompts. However, its performance declines as prompt complexity increases, underscoring the need for critical reflection and professional oversight of AI-generated recommendations. Future research should identify the determinants of these limitations. Implication for policy and practice The use of generative AI in workplace PA promotion should be embedded within European public health and digital governance frameworks, including strategies on digitalisation and prevention. EU-level standards for quality assurance, transparency, and human oversight, alongside targeted capacity-building and AI literacy initiatives, are essential to prevent the dissimination of misinformation.

Canada

Correlates of physical literacy amongst elementary school children

AUTHORS

Oldford, A.[1], Tang, Y.[2], Pelletier, C.[3], Naylor, P.J.[4], Faulkner, G.[5]

AFFILIATIONS

[1]*University of British Columbia*

[2]*Department of Sports and Health Sciences, Hong Kong Baptist University, Hong Kong, China*

[3]*School of Health Sciences, University of Northern British Columbia, Prince George, BC, Canada*

[4]*School of Exercise Science, Physical and Health Education, University of Victoria, Victoria, BC, Canada*

[5]*School of Kinesiology, University of British Columbia, Vancouver, BC, Canada*

Background: Physical literacy (PL) is a multi-dimensional concept that has gained increasing attention in the field of public health. PL is most frequently defined as "the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life". Despite the importance of developing PL in early childhood, little is known about the modifiable factors associated with PL. Purpose: To examine correlates of PL among elementary school children. Methods: In this cross-sectional study, PL was assessed using the PLAYfun and PLAYself tools. Physical activity was measured using wrist-worn accelerometers over seven days. Individual characteristics (e.g., age, gender) were assessed through parent self-report. Parent support was assessed by the Activity Support Scale for Multiple Groups. Neighbourhood walkability was assessed using the Neighbourhood Environment Walkability Scale for Youth. The school-built environment was assessed using the School Grounds Assessment Tool. Correlates of PL were examined using multiple linear regression analysis controlling for age, gender, and cultural background. Results: 273 children aged 9-10 were included for analysis. Children were at a 'competent' level of overall physical competence (57.15 ± 5.86) and reported a mean score of 70.85 (SD = 12.11) for self-perceived PL. Higher daily moderate-to-vigorous minutes of PA ($\beta = 0.014$, $p = 0.03$) and use of community resources ($\beta = 0.69$, $p = 0.003$) significantly predicted PL. Neighbourhood walkability, the school-built environment, and individual characteristics were not associated with PL. Conclusions: There were few significant correlates of PL in this sample. Higher physical activity and parental encouragement and support to be active outside the school setting were important. Implications for Policy and Practice: These findings demonstrate the potential importance of broader influences of participation in community-based programs and engagement in active school travel on PL. Initiatives to alleviate barriers to such participation are required. Funding: Public Health Agency of Canada

United States

Developing a Co-Created Bilingual Online Physical Activity Training for Community Health Workers

AUTHORS

Paiva-Neto, T.[1], Selzer, A.[2], Morales, D.[1], Rivas, C.[1], Schwingel, A.[1]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*
[2]*Villa Comunitaria*

Background: Community Health Workers (CHWs) play a critical role in chronic disease prevention and health promotion, yet physical activity (PA) is often underrepresented in CHW education. This gap is particularly relevant in underserved communities disproportionately affected by chronic diseases, where CHWs are well positioned to promote equitable access to PA. Purpose: To describe the development, structure, and content of a co-created bilingual online training program designed to strengthen CHWs' capacity to promote physical activity in community settings. Methods: A multidisciplinary team of researchers, Extension professionals, CHW practitioners, online learning specialists, and other experts co-created an eight-module, self-paced online training program. CHW colleagues actively contributed throughout the development process to ensure relevance, cultural responsiveness, and practical applicability. The program, available in English and Spanish, is accessible via computer or mobile device. Each module includes storytelling, video lessons, practice activities, self-assessments, reflective exercises, quizzes, and knowledge assessments with opportunities for mastery. Results: The training addresses key competencies for community-based PA promotion, including evidence-based PA recommendations, behavior change strategies, chronic disease self-management support, culturally responsive community engagement, and the role of CHWs as trusted health promoters. The bilingual format expands accessibility for Spanish-speaking CHWs and enhances the program's potential reach across diverse populations. The co-creation process ensured that the curriculum reflected real-world practice while remaining feasible for online delivery. Conclusions: This co-created bilingual online training offers an innovative, practical approach to strengthening CHW capacity to promote PA. By integrating community expertise into curriculum development, the program addresses an important educational gap while supporting culturally responsive health promotion. Implications for Policy and Practice: The program offers a scalable model for integrating PA training into CHW workforce development. Its online, bilingual, and co-created design can support equitable dissemination, strengthen community-based health promotion, and inform similar capacity-building initiatives in diverse settings.

Australia

Development of online resources to support the implementation of the Physical Activity Advice Continuum

AUTHORS

R Cox, E.[1], Hill, J.[2], Barrett, S.[3], Seymour, J.[4], Szeto, K.[5], Lay, R.[6], Capio, C.[7], Freene, N.[4], Gomersall, S.[2]

AFFILIATIONS

[1]*University of Newcastle*
[2]*The University of Queensland*
[3]*Bendigo Health*
[4]*University of Canberra*
[5]*Adelaide University*
[6]*Cancer Institute*
[7]*Hong King Metropolitan University*

Background: Physical activity promotion by health professionals and other healthcare workers is an underutilised opportunity to address physical inactivity. Purpose: To support clinicians to provide the right advice, in the right setting, at the right time, this project aimed to develop and test the usability and acceptability of a suite of digital resources supporting the translation of the physical activity advice continuum. Methods: This project was conducted in two phases. In phase 1, two focus groups were completed to support the development of the digital resources. In phase 2, an online survey and individual interviews were completed to test the usability and acceptability of the digital resources. Results: In phase 1, eight health professionals participated in two focus groups, resulting in a list of refinements to the original physical activity advise continuum to support its translation. In phase 2, 62 health professionals participated in an online survey, four health professionals, and four healthcare consumers participated in individual interviews. Findings revealed that whilst participants saw potential in the use of the digital resources, there was a need for further clarity regarding the purpose of the tool, as well as further consideration regarding how the tool could be used by different professionals. Recommendations provided were applied. Conclusions: The physical activity advice continuum digital resources have the potential to improve the physical activity promotion practices of health professionals and healthcare workers. Further research is required to establish who these resources are best suited for, and the extent in which they influence practice. Implications for Policy and Practice: Given that health professionals see many patients across their careers, integrating and coordinating various levels of physical activity advice across health care settings has the potential to increase population physical activity significantly.

Funding: National Heart Foundation of Australia

Brazil

Digital Engagement With the Viva App to Support Healthy Lifestyles in Older Women

AUTHORS

Crystine da Silva Sobrinho, A.[1], Silva Rodrigues, G.D.[2], de Sá, A.C.[3], Vecchio Sampaio, L.T.D.[3], de Oliveira Gomes, G.A.[3], Bueno Júnior, C.R.[2]

AFFILIATIONS

[1]*University of Sao Paulo*

[2]*Department of Clinical Medicine, Ribeirão Preto Medical School, University of São Paulo, Ribeirão Preto, São Paulo, Brazil.*

[3]*Department of Gerontology, Federal University of São Carlos, São Carlos, São Paulo, Brazil. ³ Affiliation to be confirmed before submission.*

Abstract Background: Sustained engagement is a major challenge for mHealth interventions in older adults, particularly when digital literacy barriers limit exposure to active components. Evidence remains limited on whether app-use intensity is associated with improved digital health literacy in lifestyle-oriented interventions. Purpose: To examine whether higher engagement with the Viva App was associated with greater improvements in digital health literacy and lifestyle-related outcomes among community-dwelling older women. Methods: This exploratory secondary analysis used the intervention arm of a 14-week, assessor-blinded randomized controlled trial conducted in Ribeirão Preto, Brazil. Participants allocated to the Viva App group (n=21) received a multiprofessional mHealth intervention combining health education, self-monitoring, quizzes, guided lifestyle tasks, gamification, social interaction, and teleassistance. Engagement was classified as higher (n=11) or lower (n=10) using a composite app-use score. Outcomes included digital health literacy, sedentary behaviour, physical function, and lifestyle-related indicators. Group differences were examined using comparative tests and effect sizes. Changes over time were explored using mixed models and Bayesian repeated-measures analyses. Results: Engagement profiles were clearly separated: the higher-engagement group had almost twice the app-use score of the lower-engagement group (6483.8 vs 3345.3; $p<0.001$; $d=2.73$). Higher engagement was associated with greater improvement in digital health literacy over time (engagement-by-time interaction $p<0.001$; $BF10=15.2$). Teleassistance frequency was numerically higher in the higher-engagement group, but not statistically different (14.3 vs 10.0 sessions; $p=0.42$), suggesting that app exposure, rather than teleassistance frequency alone, differentiated response. Findings for sedentary behaviour and physical function were favourable but exploratory. Conclusions: Greater Viva App engagement was associated with larger gains in digital health literacy among older women. Implications for Policy and Practice: Scaling mHealth lifestyle interventions for older adults should include user-centred design, engagement monitoring, digital inclusion support, and integration with multiprofessional care pathways. Funding: CAPES – Finance Code 001; CNPq; FAPESP grant 2025/26880-4.

United States

Do school neighborhood microscale built environment attributes influence children's physical activity and active travel?

AUTHORS

Bentley, S.[1], Ganzar, L.A.[2], Burford, K.[3], Salvo, D.[4], Hoelscher, D.M.[5], Zhang, Y.[6]

AFFILIATIONS

[1]*UTHealth Houston*

[2]*Professional Data Analysts*

[3]*North Carolina State University*

[4]*The University of Texas at Austin*

[5]*The University of Texas Health Science Center at Houston School of Public Health Austin*

[6] *The University of Texas Health Science Center a t Houston School of Public Health Austin*

Background: Active travel to school (ATS) is at an all-time low in the United States. Microscale built environmental features near schools can influence children's physical activity. Purpose: To examine the association between the microscale built environment attributes and physical activity (PA), sedentary behavior (SB), and ATS among elementary school (age 7 to 9 years) students. Methods: Third-grade students (mean age = 8 years; 52% girls) residing within a 1600-meter school buffer participated in the Safe TRavel Environment Evaluation in Texas Schools (STREETS) study, which included 34 Central Texas schools. PA and SB in students were assessed with accelerometers, and ATS participation (at least once per week vs no ATS) was parent-reported. The Microscale Audit of Pedestrian Streetscapes for Safe Routes to School (MAPS-SRTS) was used to assess road segments at or very near schools. Mixed-effects models tested associations, adjusting for child sex (boys, girls), child race (Hispanic, White, Other), and parent education status (college degree or not). Results: Of 323 students, 31% were Hispanic and 27% were other races, and most parents had a college degree (67%). Supportive bicycle infrastructure in school access road-segments was directly associated with higher moderate-to-vigorous (p=0.01) and total PA (p=0.034). Further, positive crosswalk amenities like high-visibility striping (p=0.039), an overall positive crossing subscale score (p=0.012), and the overall crossing score (p=0.041) were associated with higher total PA. There was no significant association between MAPS-SRTS scores and SB or parental-reported ATS. Conclusions: Supportive bicycle infrastructure and pedestrian crossings near elementary schools are associated with higher levels of PA among elementary school children. Studies employing more refined measures of ATS are warranted. Implications for policy and practice: Findings suggest that even in highly car-dependent settings, protected cycling and pedestrian infrastructure near school entrances, with special attention to safe crossings, can enhance children's physical activity. Funding: NIH-grant R01 HD097669.

United States

Does Social Media Affect Mental Health Differently by Age? Findings from a National Survey (USA).

AUTHORS

Ayoola, O.[1], Gustavo Machado, P.[2], Patel, A.[3], Amaral de andrade Leao, O.[3]

AFFILIATIONS

[1]*University of Illinois Urbana-Chmapaign*
[2]*Federal University of Lavras, Lavras, Brazil*
[3]*University of Illinois Urbana-Champaign*

Social media has become central to daily life, raising concerns about its impact on physical and mental well-being. This study investigated the association between social media use and mental health outcomes, specifically depression and mental distress, across different age groups. We analysed data from the Health Information National Trends Survey (HINTS 6, n = 6252), utilising logistic regressions stratified by age (18–29, 30–39, 40–49, 50–59, 60–69, and 70+). Models examined the associations between high or low frequency of social media use and mental health outcomes, adjusted for sociodemographic factors. Among adults aged 18–29, both low- and high-frequency use were strongly associated with mental distress compared to non-users (OR = 13.96, 95% CI: 1.47–49.92 vs OR = 8.52, 95% CI: 2.18–89.13, respectively). Notably, in adults aged 70 and older, high-frequency use remained significantly associated with depression (OR = 1.59, 95% CI: 1.12–2.26). These findings highlight the complex, age-dependent role of social media in population mental health and underscore the need for age-sensitive public health strategies.

Australia

Early outcomes of Move to Improve: physical activity for children with chronic conditions

AUTHORS

Davey, E.[1], Willis, C.[2], Sivaramakrishnan, H.[3], Wood, F.[4], Valentine, J.[5], Walwyn, T.[6], Graciet, J.[7], Long, T.[8], Davis, E.[9], O'Meara, D.[7], George, A.[7], Hawthorne, E.[7], Jamieson, G.[7], Maitre, O.[7], Zadow, C.[7]

AFFILIATIONS

[1]*Child and Adolescent Health Service*

[2]*The Kids Research Institute Australia*

[3]*Curtin University*

[4]*Perth Children's Hospital, Fiona Wood Foundation,6Burns Service of Western Australia, Murdoch, Australia 5School of Human Sciences, University of Western Australia,*

[5]*Perth Children's Hospital, The Kids Research Institute Australia, 3School of Medicine, University of Western Australia, Crawley, Australia*

[6]*School of Medicine, University of Western Australia, Crawley, Australia, Paediatric Department, Women's and Children's Services, Royal Hobart Hospital, Hobart, Tasmania, Australia*

[7]*Perth Children's Hospital*

[8]*Perth Children's Hospital, School of Biomedical Sciences, University of Western Australia, Crawley, Australia*

[9]*Perth Children's Hospital; The Kids Research Institute Australia, School of Medicine, University of Western Australia, Crawley, Australia*

Background Physical activity improves physical and psychosocial outcomes for children with a range of chronic health conditions. However, coordinated, tertiary-based physical activity intervention services for children are yet to exist in Australia. Purpose This study aimed to evaluate Move to Improve (M2I), a goal-directed physical activity intervention for children with chronic health conditions. Methods A single-arm, pragmatic feasibility trial was conducted. Children aged 5-17 years diagnosed with cancer, cerebral palsy, post-burn injury, or type 1 diabetes were eligible to participate. M2I included 8 weeks (8 hours) of physical activity support, delivered by a multidisciplinary allied health team in the hospital and community. Primary outcomes were assessed at baseline and immediately post-intervention, including physical activity goal attainment (Canadian Occupational Performance Measure, COPM) and quality of life (Pediatric Quality of Life Inventory, PedsQL). Linear mixed-effects models evaluated changes in outcome variables, with differences between timepoints computed from estimated marginal means. Results To date, 123 participants aged 5-17 years enrolled in M2I. High adherence was observed for all participants (97% session attendance). Compared with baseline, model-estimated mean differences immediately post-intervention showed significant improvements in COPM performance and satisfaction (+2.60, 95% CI 2.0 to 3.2, $p<0.01$), and PedsQL total scores for caregiver- (+4.7, 95% CI 1.6 to 7.8, $p<0.01$) and child-report (+3.0, 95% CI 0.4 to 5.6, $p<0.05$). Conclusion Preliminary data suggest M2I may support children with chronic conditions to achieve their physical activity goals and improve health-related quality of life. M2I may act as a blueprint for incorporating physical activity within paediatric healthcare settings.

Australia

Estimating life expectancy gains from increased physical activity levels in Queensland, Australia: a lifetable analysis

AUTHORS

Wanjau, M.[1], Mielke, G.[2], Veerman, L.[1]

AFFILIATIONS

[1]*Griffith University*
[2]*University of Queensland*

Background: In Australia, physical inactivity remains widespread, contributing substantially to increased healthcare costs and productivity losses. Quantifying life expectancy gains from increased physical activity can strengthen the evidence base for policy action and equitable infrastructure investment. Purpose: To estimate the life expectancy gains from changes in physical activity in the Queensland population and communicate findings in a way accessible to a broad audience. Methods: We developed a life table for the Queensland population using the most recent population and mortality data from the Australian Bureau of Statistics. We estimated age-specific physical activity levels by quartile in steps per day by re-analysing accelerometry data from the HABITAT study. We will model the relationship between physical activity and mortality using dose–response hazard ratios from a recent systematic review and meta-analysis. Potential impact fraction methods will be applied to estimate the impact of changes in physical activity on mortality, and alternative life tables will be derived to estimate life expectancy at different activity levels. Results: The study will report accelerometry-based average total physical activity (steps per day) by quartile for the Queensland population, alongside life expectancy estimates at different activity levels. Life expectancy gains will also be expressed as equivalent daily minutes of walking and the walking time required for lower physical activity quartiles to reach higher activity levels. Conclusions: Increased physical activity leads to gains in population life expectancy. Implications for Policy and Practice: Expressing these health gains as gains in lifetime for a specific number of minutes of walking makes health impacts intuitive and compelling for public communication. The estimates strengthen the evidence for government investment in equitable physical activity promotion and infrastructure as part of Queensland's Olympic and Paralympic Games legacy. Funding: Health and Wellbeing Queensland

Canada

Evaluating national scale-up of the Physical Literacy for Communities intervention

AUTHORS

Pelletier, C.[1], Reis, N.[2], Faulkner, G.[3], Manyanga, T.[1], Naylor, P.J.[4]

AFFILIATIONS

[1]*University of Northern British Columbia*
[2]*Vancouver Island University*
[3]*University of British Columbia*
[4]*University of Victoria*

Background: The Physical Literacy for Communities (PL4C) project was a multisectoral community mobilization and capacity-building initiative to support the development of physical literacy in children and youth across selected Canadian communities. Central to PL4C was the creation of multisectoral community partnership tables that delivered context-specific initiatives. Purpose: Our evaluation sought to describe capacity-building efforts and community-level actions, while also identifying key barriers and facilitators to implementation of the PL4C initiative across diverse regional contexts. Methods: The evaluation of national scale-up was designed using the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) framework. Data were collected from semi-structured interviews and focus groups with participants in the PL4C tables, surveys with participants of capacity-building events (workshops, training seminars), and the achievement of milestones established in each PL4C community. Results: Over 3 years, 19 communities across 5 geographic regions in Canada were engaged in the PL4C intervention. Approximately 13,975 leaders were trained across capacity building initiatives, and 97 leaders were trained on using physical literacy assessment tools and measured physical literacy in 6648 children. Pre- and post-workshop surveys indicated a significant increase in physical literacy knowledge and confidence. Facilitators included strong leadership from the regional lead to support multisectoral collaborations and encourage community buy-in. Barriers identified included high turnover of staff and leadership. Participants expressed various degrees of confidence related to long-term sustainability in the absence of permanent leadership or funding. Conclusions: The PL4C intervention demonstrates that bridging sectors is a high-value strategy for enhancing physical literacy capacity at scale. However, the inherent complexity of forming multisectoral partnerships requires dedicated local leadership to support partnership development. Implications for Policy and Practice: Multisectoral community action related to physical literacy can positively impact capacity and bridge silos between sectors. Consistent local leadership and funding are essential for sustainability. Funding: Public Health Agency of Canada

United States

Evaluation of a physical activity-based intervention to reduce PTSD symptoms in US military veterans

AUTHORS

Trejo Tello, K.[1], Palmer, P.[2]

AFFILIATIONS

[1]*College of Charleston*
[2]*WarriorWOD*

Background Post-traumatic stress disorder (PTSD) is a debilitating condition with adverse mental and physical health outcomes. PTSD disproportionately affects US military veterans. Emerging research suggests that behavioral interventions promoting physical activity can effectively reduce symptoms. Drawing on this research, the non-profit WarriorWOD established an intervention to help Veterans manage PTSD symptoms through a multifaceted program featuring fitness, nutrition education, and peer-to-peer mentorship. Purpose This study evaluates the impact of a six-month physical activity-based intervention on PTSD symptoms in US military Veterans. Methods In 2025, Veteran participants were enrolled in the WarriorWOD program, receiving six-month memberships to their choice of fitness programs. A minimum of twice-weekly attendance was expected. The intervention included biweekly nutrition counseling and alternating weekly “battle buddy” peer-mentorship sessions. Participants completed a pre- and post-intervention Qualtrics-based survey. PTSD symptoms were assessed using the PCL-5, and additional questions assessed their attitudes, knowledge, and behaviors regarding physical activity. Results 21 veterans completed the pre- and post-intervention surveys. They were predominantly male (n=12, 63%). Participants reported fewer PTSD symptoms following the completion of WarriorWOD ($M = 28.95$, $SD = 15.90$) as compared to when they started the program ($M = 43.37$, $SD = 15.80$, a statistically significant PCL-5 mean score decrease of 14.42, 95% CI [-19.67, -9.18, $t(18) = -5.78$, $p < .001$, $d = -1.33$. Conclusions A long-duration physical activity, nutrition education, and peer-to-peer support-based program was associated with decreased PTSD symptoms in US military veterans. Notably, post-intervention PCL-5 score averages fell below the 31-33 threshold for probable PTSD. Implications for Policy and Practice Programs that offer physical activity of the participant’s choice, coupled with nutrition education and peer-to-peer support, may offer an effective form of treatment for Veterans with PTSD.

Denmark

Excessive Sedentary Behaviour and Minimal Physical Activity during Hospitalisation among Children and Adolescents

AUTHORS

Winther, L.[1], Hellum, M.E.[2], Stahlhut, M.[3], Dall, C.H.[4]

AFFILIATIONS

[1]*Copenhagen University Hospital – Rigshospitalet, Denmark*

[2]*Department of Children and Adolescents with Surgical Diseases of the Face, Bones, and Joints, Copenhagen University Hospital – Rigshospitalet, Denmark*

[3]*Centre for Clinical Research and Prevention, Copenhagen University Hospital, Bispebjerg and Fred-eriksberg Hospital, Copenhagen, Denmark*

[4]*Department of Clinical Medicine, University of Copenhagen, Copenhagen, Denmark*

Background Despite global recommendations to limit sedentary time and promote physical activity in children, hospital care pathways rarely address movement behaviours. This study addresses this gap by providing the first comprehensive, device-based assessment of physical behaviour across paediatric surgical populations. Purpose To quantify sedentary behaviour and physical activity in children and adolescents during hospitalisation and examine associations between sedentary behaviour and pain, constipation, surgery type, movement restrictions, 30-day readmission, and length of stay. Methods Children and adolescents aged 2–17 years admitted to three paediatric departments at a Danish hospital were eligible for this prospective observational study. Children scheduled for day surgery and wheelchair users were excluded. All participants wore two triaxial accelerometers continuously during their hospital stay. Results A total of 103 hospitalised children and adolescents were included. They spent a median of 23.3 hours/day sedentary, including 18.8 hours/day lying in bed, leaving very limited time for upright physical activity. Sedentary behaviour was evenly distributed across daytime hours (08:00–20:00), with modest increases in activity in the morning and late afternoon. Higher sedentary time was significantly associated with older age ($p<0.001$), opioid use ($p=0.028$), and orthopaedic procedures ($p<0.001$). No associations were found between sedentary behaviour and length of stay ($p=0.391$), 30-day readmission ($p=0.467$), laxative use ($p=0.695$), or post-operative movement restrictions ($p=0.637$). Conclusion Hospitalised children and adolescents exhibited high levels of sedentary behaviour. Physical activity promotion is required across paediatric surgical populations, with particular focus on adolescents, patients undergoing orthopaedic or spine surgery, and those receiving opioids. Implications for Policy and Practice These findings show that inactivity is systemic rather than procedure-specific. Physical activity promotion must be embedded as a core standard of paediatric inpatient care. Creating a movement-friendly hospital environment that promotes interruption of sedentary behaviour with small bouts of physical activity may have beneficial effects (DOI: 10.1016/S0140-6736(25)02219-6).

Sweden

Exercise as moderator in the association between patterns of psychosocial work environment and sickness absence

AUTHORS

Eriksson, L.[1], Väisänen, D.[2], Lindwall, M.[3], Hellman, T.[4], Ekblom-Bak, E.[2]

AFFILIATIONS

[1]*The Swedish School of Sport and Health Sciences (GIH)*

[2]*Department of Health Sciences, The Swedish School of Sport and Health Sciences (GIH)*

[3]*Department of Psychology, University of Gothenburg*

[4]*Department of Medical Sciences, Occupational and Environmental Medicine, Uppsala University*

Background: The psychosocial work environment (PWE) is important for long-term sickness absence (LTSA) incidence. However, how exercise frequency may moderate the association remains unclear. Purpose: To investigate the association between different patterns of PWE and LTSA, and whether exercise moderates the association. Methods: An observational, prospective cohort design was applied, using data from 35,497 individuals participating in health assessments at work conducted between 2015-2022 by occupational health services in Sweden. Work environment and exercise frequency were obtained through questionnaires, while LTSA was obtained from national registers. In a previous study, five profiles of varying PWE were explored using latent profile analysis based on four indicators: "work group climate", "work engagement", "workday stress and recovery opportunities", and "leadership of manager". Here, the associations between profiles and LTSA were investigated using Cox regression with 2-year follow-up restriction. Interaction and stratified analyses were performed to examine the moderating effect of exercise. Results: The five profiles ranged from least to most favorable PWE. After adjusting for confounders, individuals belonging to the least favorable profile had a higher risk of LTSA of any cause (HR=1.31, 95%CI 1.05-1.63) and of LTSA due to psychiatric diagnoses (HR=1.58, 1.15-2.16), compared to the most favorable profile. No associations were found for other profiles. Interaction effects were not statistically significant, but when stratifying on exercise, the association remained in individuals exercising less than three times/week, while the association disappeared in individuals with higher exercise frequency. Conclusions: Individuals with the least favorable PWE profile are at higher risk of LTSA compared to the most favorable profile. The associations may not significantly differ depending on exercise. Implications for Policy and Practice: The psychosocial work environment remains central for employee health, and although exercise may not sufficiently moderate the association, it may still be an important factor. Funding: FORTE (grant no 2023-01126)

Netherlands

Experiences on receiving physical activity counselling in osteoarthritis care: a scoping review

AUTHORS

Wildekamp, M.[1], Hoekstra, F.[2], McCarthy, E.M.[3], Van der Vegt, N.J.[3], Van den Akker-Scheek, I.[4], Vrijsen, J.[4]

AFFILIATIONS

[1]*University Medical Center Groningen*

[2]*The University of British Columbia, Centre for Chronic Disease Prevention and Management, Kelowna, BC, Canada*

[3]*University of Groningen, University Medical Centre Groningen, Department of Human Movement Sciences, Groningen, The Netherlands*

[4]*University of Groningen, University Medical Center Groningen, Department of Orthopaedics, Groningen, The Netherlands*

Background: Physical activity (PA) offers essential benefits for adults with osteoarthritis (OA), yet PA levels remain low. Interactive behavioural support, such as counselling, shows promise in promoting PA. Understanding users' experiences is essential for designing acceptable, engaging, and sustainable PA interventions. Purpose: To explore qualitative evidence on how adults with OA experience receiving interactive behavioural support aimed at promoting PA. Methods: A systematic search was conducted in PubMed, Embase, CINAHL, PsycINFO, and Web of Science (last updated September 3rd, 2025). Studies were eligible if they included adults (≥18 years) with OA, described interventions with interactive support aiming to increase PA or related determinants, reported qualitative user experiences, and were published in English. Data were extracted and synthesised using a thematic approach. Results: Six studies were included. Key themes were: (1) perceived support, where feeling listened to, encouraged, and monitored increased motivation; (2) personalisation, where tailoring to individual needs and preferences enhanced engagement; (3) coaching and motivation, where guidance from providers helped manage pain, adapt activities, and maintain participation; (4) accountability, experienced when participants knew someone was monitoring or collaborating with them; (5) delivery style, with preferences varying between structured, collaborative, or flexible approaches; and (6) barriers, including time constraints, costs, and reduced support after interventions ended. Conclusions: Qualitative evidence suggests that interactive behavioural support is most meaningful when it is person-centred, relational, and tailored to individual needs and circumstances. These findings highlight the importance of qualitative research for understanding how and why behavioural support interventions are experienced positively or negatively in OA care. Implications for Policy and Practice: PA promotion strategies should prioritise personalised, relationship-based behavioural support and incorporate qualitative evidence to inform intervention design, implementation, and sustainability in real-world settings. Funding (if applicable): Wildekamp's PhD position is funded by University Medical Center Groningen.

United Kingdom

Exploring Perceptions of Movement Behaviour Guidelines in People Diagnosed With Cancer: A Qualitative Study

AUTHORS

Smith, S.[1], Pandia, T.[1], Bugden, R.[1], Brocklebank, L.[2], Kennedy, F.[3], Lally, P.[4], Hamer, M.[1], Fisher, A.[1]

AFFILIATIONS

[1]*University College London*
[2]*University of Oxford*
[3]*University of Leeds*
[4]*University of Surrey*

Background: Movement behaviour guidelines recommend levels of physical activity, sedentary behaviour, and sleep to achieve health benefits. The perspectives of end-users on these guidelines are recommended but rarely explored and have not previously been examined in the cancer context. Purpose: This study explores perceptions of existing UK Physical Activity and Canadian 24-hour Movement Behaviour Guidelines among people diagnosed with cancer. Methods: Participants were recruited using a stratified sampling approach from a two-armed physical activity intervention trial (APPROACH) in people diagnosed with cancer in the UK, including intervention and control participants. Interviews were conducted on Microsoft teams (audio only) and followed a semi-structured interview guide. Participants were emailed and reviewed each set of guidelines while on the call. Data were analysed using framework analysis, informed by the Physical Activity Messaging Framework. Results: 30 participants were interviewed (mean age=63; 53% female; 40% breast cancer, 33% prostate cancer, 27% colorectal cancer). Four main themes were identified: 1) From awareness to understanding: interpreting the guidelines; 2) Interpreting and negotiating the 24-hour framework; 3) Making meaningful guidance: relevance in the cancer context; 4) Barriers to action; alongside an overarching theme 5) Optimal message delivery: Aspects of the Physical Activity Messaging Framework. Awareness of movement behaviour guidelines was low, especially for strength, balance and light physical activity. Relevance depended on starting ability, progression of activity, cancer identity and age. Barriers to adherence included comorbidities, competing responsibilities and low confidence. Participants expressed a desire for flexible, achievable targets that recognise fluctuating abilities, with encouraging messages delivered by a trusted source. Conclusions: Movement behaviour guidelines must be relevant, realistic, and achievable after a cancer diagnosis, with a flexible starting point. Implications for policy and practice: Future physical activity guidelines for this population must provide clear, actionable guidance delivered in a supportive tone with acknowledgement of the cancer experience.

South Africa

Exploring Physical Activity Trends Among South African Adolescents: A Scoping Review

AUTHORS

Radebe, V.[1], Stewart, K.[1], Blair, S.[1], Wicomb, D.[1]

AFFILIATIONS

[1]*Division of Movement Science and Exercise Therapy, Stellenbosch University*

Background: Physical activity (PA) is a critical determinant of adolescent health, contributing to physical, mental and social well-being. Despite global efforts to promote PA, adolescents in low- and middle-income countries, including South Africa (SA), face unique structural and social economic barriers. This scoping review aims to map the existing literature on physical activity trends among SA adolescents to identify patterns, gaps and opportunities for intervention. The aim of the study is was to map and synthesise the existing literature on physical activity trends, with specific focus on understanding the reported levels of physical activity, the barriers and facilitators influencing participation, and the preferred forms of physical activity among the target population. Methodology: Guided by the PRISMA-ScR framework, a comprehensive search was conducted across multiple databases including Scopus, EBSCOHost, Sabinet African Journal and PubMed. Eligible studies included full text articles, reporting on physical activity levels, patterns, determinants, and interventions among adolescents aged 10-19 years in SA available in English. Data was extracted by means of a data extraction table. Results: 4256 records were identified through data bases of which 20 were included and analysed. Most studies focused on physical activity levels alone (25%) or combined with barriers and facilitators (35%). Fewer examined barriers alone (15%) or alongside preferred forms (10%). Only 15% addressed all three domains, while preferred forms were largely underrepresented overall. Discussion There is a decline in adolescent PA in SA, 82.5% of the articles indicated that adolescents were not meeting recommended PA targets. There are clear barriers, facilitators and preferred forms of PA. Conclusion: There is a need for coordinated, context-specific interventions. This review highlights critical gaps in longitudinal data, gender-specific analyses, and policy-driven research, informing future efforts to promote active lifestyles among South African youth.

South Africa

Exploring the Sport Club Stakeholders' Perceptions in Relation to the Needs for Health Promotion Training

AUTHORS

Mosime, K.[1], Monyeki, M.A.[2]

AFFILIATIONS

[1]*North West University*

[2]*North-West University, Physical Activity Sport and Recreation (PhASRec)*

Purpose This study explored sport club stakeholders' perceptions of health promotion and identified their training needs to enhance health-focused activities. Methods A two-phase cross-sectional mixed method design was conducted in all districts of North West Province. Phase 1 included interviews with 19 participants (6 managers, 7 coaches and 6 athletes), while Phase 2 included a survey of 176 participants (41 managers, 47 coaches and 88 athletes). Survey data were analysed descriptively, and interviews data underwent thematic analysis. Results Participants represented a range of sport clubs, with managers primarily from netball (46.3%) and football (43.9%) clubs, coaches mainly from netball (51.4%) and football (29.8%) clubs, and athletes predominantly from football (54.4%) and netball (23.9%) clubs. Findings indicated a strong perception of sport clubs as critical health-promoting settings, with managers (M = 1.39±0.54), coaches (M = 1.59±0.83), and athletes (M = 1.56±0.69) recognising their role in health, social engagement, and drug prevention. Clubs' culture emphasized recreation and competition, with daily practices addressing health behaviors; however, formal health education structures were limited (managers: M = 1.83±0.99; coaches: M = 1.98±1.15; athletes: M = 2.08±1.37). Key challenges included financial constraints, scarce resources, and rural or township contexts. Stakeholders highlighted the need for structured, context-specific training, including workshops, coaching clinics, and engagement of external experts, with mental health and fair play as priority areas. Conclusion While sport clubs are valued for performance and promoting health and social wellbeing, enhancing structured, evidence-based health promotion through targeted training and resource support remains essential. Collaboration among sport clubs, stakeholders and institutions is recommended to develop and implement sustainable, contextually appropriate health promotion programs to strengthen capacity, optimize resources, and maximize community impact.

Canada

From Insight to Implementation: A Culturally Responsive Program Developed with Older Adults and Program Providers

AUTHORS

Lochan-Aristide, M.[1], Bouchard, D.[2], Dogra, S.[1]

AFFILIATIONS

[1]*Ontario Tech University*
[2]*University of New Brunswick*

Background: Black older adults experience the highest risk of falls among racialized Canadians, yet they remain underrepresented in fall prevention programs. Our prior work shows that Black adults aged 50 years and older perceive existing programs as insufficiently responsive to their cultural identities, needs, and preferences, which may limit engagement. Purpose: To co-create a culturally responsive, evidence-based community fall prevention exercise program for older Black Canadians that can be delivered by community partners. Methods: This work is guided by the Active Implementation Framework. During the exploration stage, interviews were conducted with Black older adults (n=23). The current study focuses on the installation stage, during which program components, materials, and delivery processes are collaboratively developed with community partners. Staff from community organizations experienced in delivering health and exercise programming to Black older adults are participating in co-creation through structured online meetings, iterative feedback via email, and organization-specific consultations. Following the co-creation, the program will be implemented over a defined period in selected community settings, marking the transition to the initial implementation stage, where outcomes such as reach and readiness can be evaluated. Results: Eligible participants (n=6 partners) have been identified through our existing network . Program co-creation is anticipated to be completed by May 2026. Primary outcomes include the development of a comprehensive program guide with culturally informed, strength-based, and affirming messaging, flexible delivery options, and alignment with evidence-based fall prevention guidelines. Conclusion: Co-creating fall prevention exercise programs with community partners supports the development of culturally responsive and evidence-based interventions grounded in the context of older Black Canadians. Implications for Policy and Practice: This work outlines a clear pathway for co-creating evidence-based programs that address the needs of equity-deserving groups and can be adapted by other communities. Funding: Supported by the Canadian Institutes of Health Research

South Africa

Functional Exercise Management of Biomechanical and Balance Deficits in Adolescent Charcot–Marie–Tooth Disease: A Case Report

AUTHORS

Zwiegelaar, S.A.[1], Lambert, D.[2]

AFFILIATIONS

[1]*Stellenbosch Univeristy*
[2]*Stellenbosch University*

Background: Charcot–Marie–Tooth disease (CMT) is a genetically heterogeneous inherited peripheral motor and sensory neuropathy. Clinical features include pain, distal muscle weakness, postural alterations, and somatosensory deficits, which may be addressed through therapeutic exercise. Purpose: Therapeutic exercise provided by a medical rehabilitation therapist can be essential to address functional limitations in adolescents with CMT. This case report examines the effects of a 16-week individualized functional therapeutic exercise program targeting biomechanical and balance deficits in an adolescent female. Methods: In June 2024, a 19-year-old female with CMT presented with progressive muscle weakness, postural changes, balance impairments, and pain. She reported no participation in structured physical activity and difficulty performing activities of daily living (ADLs). Baseline assessment included posture and gait analysis, muscle strength assessment using handheld dynamometry, and postural control assessment using the modified Clinical Test of Sensory Integration in Balance (mCTSIB). A progressive, individualized functional therapeutic exercise program was implemented over 16 weeks. Functional therapeutic exercise uses a goal-directed approach that emphasizes whole-body, multi-joint movement patterns that address functional capacity, postural control, and movement efficiency. Results: Post-intervention, improvements were observed in posture, gait tolerance, muscle strength, and balance. Postural alignment improved with reduced forward head posture, rounded shoulders, and lumbar lordosis. Walking duration increased, and foot pain during gait was reduced. Strength gains were noted in hand grip, knee flexion and extension, hip flexion, and ankle dorsiflexion and plantarflexion (predominantly right-sided). Balance improved, with stage four of the mCTSIB completed without falls and only moderate sway. Conclusions: Functional therapeutic exercise was associated with meaningful improvements in ADLs participation, pain, and postural control, with improvement noted subjectively and objectively. Implications for Practice: Functional therapeutic exercise may serve as a viable rehabilitation strategy for adolescents with CMT to address biomechanical alignment, neuromuscular coordination, and sensory integration relevant to ADLs.

Canada

Gender Differences in Mental Health Service Utilization Among Youth in a Community-Based Program

AUTHORS

Ahmadi, S.[1], Corriveau, H.[2], Gionet, M.[3], Paulin, C.[3], Plourde, V.[2]

AFFILIATIONS

[1]*Vitalité Health Network*
[2]*Université de Moncton*
[3]*Centre de Bénévolat de la Péninsule Acadienne*

Background: The Accès Santé Jeunesse Péninsule Acadienne (ASJPA) is a community-based mental health initiative launched in 2021 to serve youth in the Acadian Peninsula, a rural, Francophone region in New Brunswick, Canada. Gender differences influence patterns of mental health service utilization among youth and are shaped by social, cultural, and structural factors. In rural and minority-language settings, such as the Acadian Peninsula, these factors may further shape access to and engagement with care. Purpose: To assess whether participant gender was associated with differences in the number of mental health services received during the study period (November 2022 to November 2024). Methods: A retrospective chart review was conducted among youth enrolled in the ASJPA program between November 2022 and November 2024. Data were extracted from clinical records, including demographic and intake information, as well as monthly documentation of the number and types of services received during program participation. Results: Among the 154 participants who participated in this study, 122 participants (12 to 29 years old) were included in the final analysis (72 girls, 50 boys). Girl participants received significantly more services than boys (11.9 ± 15.4 vs. 7.1 ± 9.9), representing a small but statistically significant difference ($t(120) = 2.12$, $p = 0.036$, Cohen's $d = 0.36$). Conclusions: Girl participants in the ASJPA program received significantly more mental health services than boy participants. Although the observed difference was modest, the findings align with existing literature of gender-based disparities in youth mental health service utilization. Implications for Policy and Practice: These findings highlight the importance of incorporating gender-based approaches in youth mental health programming. Efforts to enhance systematic monitoring of service utilization by gender may support more equitable access and delivery of care in community-based programs.

Funding: Canadian Institutes of Health Research; IYS-Net Phase 1: Building Learning Health System Networks; ResearchNB

United States

Harnessing youth, parent, and community insights for prioritizing active travel improvements: A public-participatory GIS study

AUTHORS

Le, S.[1], Swinney, K.[2], Garza, C.[2], Zhang, Y.[3], Ganzar, L.A.[4], Karner, A.[2], Bentley, S.[3], Hoelscher, D.[3], Salvo, D.[2]

AFFILIATIONS

[1]*The University of Texas at Austin*

[2]*The University of Texas at Austin, Austin, Texas, USA*

[3]*University of Texas Health Science Center at Houston (UTHealth Houston) School of Public Health in Austin, Austin, TX, USA*

[4]*Professional Data Analysts*

Background: Physical activity levels decline significantly during adolescence, and active commuting to school is at an all-time low in the U.S. Activity-supportive environments are essential to facilitate walking and cycling near schools. Purpose: Identify and characterize locations near middle schools that support or hinder active transportation according to students (age 11-13 years), parents, and residents, to inform prioritization of built environment improvement projects. Methods: The study was conducted in six low-income middle school neighborhoods as part of the Active Middle School Communities project in Central Texas, USA. Students, parents, and other residents participated in Public-Participatory Geographic Information Systems (PPGIS) interviews, which blended qualitative interviewing with digital mapping. Participants identified and elaborated on key locations that support or hinder active transportation. Secondary macro-GIS data characterized walkability, sidewalk and cycling-lane coverage, traffic density, road-network-connectivity, average speed-limits, and pedestrian crossings in PPGIS-identified locations. Logistic regression tested associations between macro-GIS features and PPGIS-identified locations. Results: One-hundred-and-two (102) PPGIS interviews were conducted with students (44.1%), parents (30.4%), and other residents (25.5%). Participants identified at least one supportive (90.1%) or unsupportive (73.3%) area. Unsupportive areas were identified as lacking sidewalks and bicycle lanes, with heavy traffic and unsafe speeds. In the models testing associations with macro-GIS features, high speed-limits (>35mph) (OR=1.14,95%CI=1.08,1.21), fewer marked-crossings (OR=1.02,95%CI=1.01,1.04), and high traffic volumes (OR=1.96,95%CI=1.04,3.68) had higher odds of being identified by PPGIS participants as unsupportive for active transportation. No differences were observed by participant type. Conclusions: PPGIS data closely align with quantitative findings from macro-GIS data and incorporate youth, parent, and community perspectives on priorities for active transport supports near schools. Implications for Policy and Practice: While macro-GIS data can identify locations near schools with suboptimal walkability and bikability, PPGIS harnesses family and community voices to prioritize project investments most important to the communities they intend to serve. Funding: NIH-Grant R01MD019423

Brazil

Health as a motivation for leisure-time physical activity in a university extension program

AUTHORS

Ferreira da Silva Ramos, J.[1], Detore Develey, L.[2], Vitorio Colombari, A.[2], Alexandre Trapé, Á.[2]

AFFILIATIONS

[1]Ribeirão Preto School of Physical Education and Sport, University of São Paulo (EEFERP-USP)

[2]Research and Studies Group in Physical Education and Collective Health (GEPEFSC). Ribeirão Preto School of Physical Education and Sport, University of São Paulo (EEFERP-USP), Brazil

Background: Leisure-time physical activity (PA) can promote physical, psychological, and social benefits. However, this evidence has not been sufficient to increase PA level in the population, particularly among more vulnerable groups. This suggests that engagement in leisure-time PA is complex and shaped by multiple individual and environmental factors. Purpose: To examine health-related motivations for PA among adult participants in a university extension program in the city of Ribeirao Preto, Sao Paulo, Brazil. Methods: Data were collected through three focus group interviews involving 15 participants (nine women and six men, aged 18–60 years). Thematic analysis was conducted to identify central narratives related to health as a motivational dimension. Health emerged as the primary motivation, expressed across two interconnected domains: recovery and prevention. Results: Participants described returning to PA after experiencing injuries, chronic pain, COVID-19–related sequelae, depressive symptoms, menopausal changes, or functional decline. Preventive motivations were equally salient and were articulated as the desire to age with independence, avoid future comorbidities, maintain mobility, and "preserve health for the future." Participants emphasized PA as a long-term investment, comparable to a "health savings account", intended to delay functional limitations associated with aging, reducing the risk of specific health conditions. Across narratives, PA was also described as a form of self-care, a strategy for coping with emotional distress, and, for some, an essential "medicine" for well-being. Conclusions: Motivation for engaging in PA is deeply rooted in lived experiences of vulnerability and in expectations of aging with autonomy and improved perceived quality of life. These findings highlight the importance of programs that integrate physical, emotional, and social dimensions of care. Implications for Policy and Practice: University extension projects can play a decisive role in health promotion and sustained participation by addressing health needs through the provision of free PA opportunities and accessible, welcoming, community-oriented environments.

United Kingdom

Healthcare Professionals' Perceptions of an Exercise Rehabilitation Programme for Long-term Conditions

AUTHORS

Ratcliffe, M.[1], Price, B.[1], Marshall, Z.A.[1], Parmley, J.[1], Heaton, S.[1], Deniszczyc, D.[2], Harwood, A.[1], Fatoye, F.[1], Doherty, P.[3], Cable, T.[1], Yeowell, G.[1], Michael, P.[1]

AFFILIATIONS

[1]*Manchester Metropolitan University*
[2]*Nuffield Health*
[3]*University of York*

Background: Exercise rehabilitation programmes are recommended for people with long-term conditions; however, they are commonly condition-specific and delivered by clinicians. Understanding healthcare professionals' views on both the acceptability of a symptom-focused exercise programme and the use of exercise professionals as an alternative workforce to clinical staff is essential to support effective implementation. Purpose: This study explored healthcare professionals' perceptions of a symptom-focused exercise programme for long-term conditions and their views exercise professionals delivering rehabilitation. Methods: Semi-structured interviews were conducted with healthcare professionals (n=14, recruitment ongoing) with authority to refer patients to exercise rehabilitation programmes. The interview schedule explored: 1) the feasibility of referral within their role; 2) barriers and facilitators to referral; 3) perceptions of a symptom-focused exercise programme; and 4) views on exercise professionals as an alternative exercise workforce to clinical staff. Data are being analysed using reflexive thematic analysis in NVivo. Results: Preliminary analysis of initial interviews (n=2) suggests several emerging themes. Healthcare professionals recognise the potential value of a symptom-focused programme but identify significant barriers including group relatability and practical constraints. Early findings indicate mixed perceptions of workforce innovations, with professionals expressing support in expanded capacity and relieving National Health Service (NHS) pressure, whilst expressing concerns about training standards and professional boundaries. Data saturation is expected at around 15 interviews. Full results from all participants will be available by April 2026. Conclusions: Preliminary findings highlight tensions between healthcare professionals' perceived value of the programme and concerns about implementation, underscoring the need to balance workforce expansion with quality assurance. Implications for Policy and Practice: Complete findings will provide comprehensive insights into optimising exercise referral pathways and workforce development to enhance the health outcomes for people with long-term conditions. Funding: Jointly funded by Manchester Metropolitan University and Nuffield Health UK.

South Africa

How task constraints shape sprint performance: evidence from 40-m sprint variations in 9–11-year-old children

AUTHORS

Denysschen, M.[1], Du Plessis, W.[2], Coetzee, D.[2], Smits-Engelsman, B.[2]

AFFILIATIONS

[1]*North West University*
[2]*PhASRec*

Background: Children often experience the same movement task differently depending on the task constraints imposed. Variations such as stopping, turning, accelerating, decelerating, changing direction, or interacting with objects fundamentally alter the coordination, perceptual, and physical demands of running. Although sprinting tests are widely used in physical education, it remains unclear how different constraints within the same 40-m distance shape sprint performance and children's task experience. Purpose: To examine how increasing coordination and agility constraints (additional turns, accelerations/decelerations, bending, and object manipulation) influence running performance and perceived task experience in typically developing children. Methods: Twenty-six children aged 9–11 years (9 girls, 17 boys) from South Africa completed several 40-m sprint variations at maximal effort: a straight-line 40-m sprint, 4×10-m shuttle runs, 8×5-m shuttle runs, a slalom course, and tasks requiring picking up and placing an object during the run. Perceived enjoyment and perceived exertion were recorded after each task. Results: Performance differed significantly across task variations. As task constraints increased, such as the number of turns, accelerations, decelerations, and object interactions, completion time increased. For example, the slalom task (mean =19.72 s) required more than double the time of the straight 40-m sprint (mean = 8.5 s). Perceived exertion also increased with task difficulty. Despite higher demands, children reported high enjoyment across all running tasks. Conclusions: Different 40-m sprint variations constrain children's movement in distinct ways, emphasizing different aspects of sprinting such as coordination, agility, re-acceleration, body orientation changes, and object-interaction skills. These results highlight that sprinting is not a single, uniform skill: small changes to task design markedly alter both performance and perceived effort. Considering task constraints in physical education can make running activities more representative of real-life movement demands and provide richer opportunities for skill development. Implications for policy and practice: Physical education can consider task restraints when teaching skills.

Denmark

How to Measure Play: The Potential of Automated Monitoring of Outdoor Play and Activity Spaces

AUTHORS

Madsen, C.D.[1], Schipperijn, J.[1], Stewart, T.[2], Heidler, J.[1], Toftager, M.[1]

AFFILIATIONS

[1]*University of Southern Denmark*
[2]*Auckland University of Technology*

Background: Observing children's and adolescents' behavior is essential for understanding use of outdoor environments. Observational tools such as SOPARC are widely applied but are time-consuming, cannot capture continuous long-term data, and have limited scalability. Purpose: This project examines whether observations in outdoor play and activity spaces can be automated using AI-powered monitoring systems. Specifically: (1) Assess researchers' experiences with quantitative methods and their priorities for method development, (2) evaluate HallMonitor for long-term, continuous monitoring of outdoor play and activity spaces, and (3) explore HallMonitor's practical application and integration with other data sources. Methods: (1) A survey captured researchers' methodological experiences and development needs. (2) HallMonitor's automated user detection was compared with manual user counts on corresponding non-blurred images and will be analysed using linear mixed models. (3) Automated detection will be integrated with additional data sources (e.g., weather, pricing) and visualized through heatmaps. Results: Researchers highlighted the need for methods that reduce burden, streamline data collection, and improve scalability. Priority areas include 24-hour wearables, automated context-specific monitoring, and multi-source data integration. Preliminary HallMonitor tests show 94% accuracy in detecting whether a playground is in use. However, it identifies the correct number of users in only 8% of cases, underestimating in 86%. Errors primarily arise in low-light conditions and when large groups are present. Performance is expected to improve with the new, improved algorithm. Conclusions: Key challenges include reducing burden, streamlining data collection, and improving scalability. Automated camera-based monitoring technologies shows potential to address these challenges, and enable long-term, continuous observation in outdoor play and activity spaces. Implications for Policy and Practice: Automated monitoring supports scalable, cross-country research with reduced observer bias and improved comparability. Continuous data can guide decision-makers in understanding use, guiding investments, and assessing returns on investment in outdoor play and activity spaces. Funding: Kompan A/S

United States

Implementing Movement-Based SEL in Head Start: Teacher Perspectives and Practices

AUTHORS

Xie, X.[1], Kim, J.[1]

AFFILIATIONS

[1]*Missouri State University*

Background. Movement-based social and emotional learning (SEL) programs offer opportunities to promote young children's social and emotional competencies, particularly in early childhood settings serving disadvantaged populations. However, limited research documents how teachers both perceive and enact movement-based SEL practices in real-world classroom contexts. Purpose. This study examined teachers' perspectives and observed practices related to the implementation of a movement-based SEL program in Head Start classrooms, with a focus on how teachers support children's engagement, regulation, and inclusive participation during physical activities. Methods. A qualitative, multi-source design was used. Semi-structured interviews captured teachers' perspectives on SEL support, confidence, and implementation experiences. Classroom observations documented teachers' active behaviors during movement-based SEL activities, including strategies used to support on-task behavior, self-regulation, and participation. Data were analyzed using thematic analysis, with integration of interview and observation findings to examine alignment between perceived and enacted practices. Results. Teachers emphasized the importance of adult self-regulation and intentional facilitation to support children's engagement in movement-based activities. Observations revealed concrete strategies that operationalized these beliefs, including scaffolding inclusive participation during active games, providing calming tools to support waiting and turn-taking, and offering gradual entry and choice-based options for children needing additional support. Teachers used environmental structuring, consistent behavioral prompts, one-on-one regulation support, and active adult modeling to maintain engagement and promote emotional safety during physical activity. Trauma-informed and equity-oriented practices were evident in this study, particularly in supporting new children and those with behavioral challenges. Conclusions. Integrating teacher perspectives with observed classroom practices highlights how movement-based SEL programs are implemented through intentional, adaptive, and inclusive strategies in Head Start settings. Implications for Policy and Practice. Findings underscore the value of professional development and coaching that emphasize adult regulation, inclusive facilitation, and practical strategies for supporting children's engagement in movement-based SEL, particularly in early childhood programs serving high-need communities.

Australia

Keeping older adults active: consumer-informed updates to Safe Exercise at Home

AUTHORS

West, C.[1], Said, C.[2], Bower, K.[2], Callisaya, M.[3], Batchelor, F.[4], Hill, A.M.[5], Dawson, R.[6], Mackintosh, S.[7], Fu, S.[8], Hill, K.[9], Sherrington, C.[10]

AFFILIATIONS

[1]*Institute for Musculoskeletal Health*

[2]*University of Melbourne*

[3]*Menzies Institute for Medical Research, University of Tasmania*

[4]*National Ageing Research Institute*

[5]*University of Western Australia*

[6]*Institute for Musculoskeletal Health, University of Sydney and Sydney Local Health District; Australian Physiotherapy Association*

[7]*University of South Australia*

[8]*Ageing Balance, University of Queensland, Mater Health Services*

[9]*Monash University*

[10]*Institute for Musculoskeletal Health, University of Sydney and Sydney Local Health District*

Background COVID-19 lockdowns placed significant limitations on exercise opportunities. Reduced physical activity for older adults can significantly increase their risk of falls and reduce functional ability. We launched the Safe Exercise at Home (SEAH) website in 2020 to help older adults get active. There were 32,000+ visits in the first month and it continues to attract ~700 users/month. Purpose There was a need to update the website to meet the current needs of older people post-pandemic and further support ongoing engagement in physical activity. Methods We conducted an online REDCap survey, informed by the Theoretical Framework of Acceptability, alongside optional semi-structured interviews with SEAH users (e.g. the public – older adults and individuals accessing the site on behalf of an older adult; and health professionals). Recruitment was undertaken through a banner on the website, social media platforms, and newsletters. The survey/interviews explored website use, ease of navigation, content relevance, and suggestions for improvement. Results Fifty-two participants completed the survey (n=40 public, n=12 health professionals). Most public participants were aged 65+ and health professionals were primarily physiotherapists working with older adults. Survey respondents rated SEAH highly for clarity and ease of use (mean 8.1/10, SD 1.9), and valued its practical exercise advice. Some public participants reported increased activity and motivation. Interview themes highlighted personal context, perceived value/benefit, suitability/relatability, user friendly/accessible, and suggestions to enhance clarity, depth and engagement. Overall, participants found SEAH accessible and relevant, noting clear navigation and inclusive videos/images. Suggested enhancements included improved visual accessibility and additional content. Conclusions SEAH is a valued resource supporting older adults' physical activity. User feedback through provided insights to inform improvements beyond those available from web analytics. Implications for policy and practice This work highlights the important of user-centred design and evaluation, and the interest in physical activity by older adults.

United States

Mates in Motion: Feasibility of a Couple-based Physical Activity Intervention for Cancer Patients and Partners

AUTHORS

Langer, S.[1], Joseph, R.P.[1], Tao, C.[2], Ingurgio, A.[1], Lee, R.E.[1], Khera, N.[2]

AFFILIATIONS

[1]*Arizona State University*
[2]*Mayo Clinic Arizona*

Background Physical activity (PA) among cancer survivors is low, especially among those undergoing hematopoietic cell transplantation (HCT). Prior PA interventions in HCT have focused entirely on patients, ignoring an opportunity to engage caregiving partners. Purpose Establish feasibility and acceptability of a couple-based PA intervention for HCT patients and partners. Methods Couples (n=50) were recruited from a comprehensive cancer care center prior to the patient's scheduled transplant. Following transplant, couples were randomized to either "Mates in Motion" or usual care. Over 8 weeks, intervention couples received structured training in communication and joint problem-solving to help them support one another in PA, wore a Garmin device to self-monitor daily steps, and received personalized weekly step goals. Mates in Motion participants also completed a post-intervention satisfaction survey. A random selection of 59 audio-recorded sessions were analyzed for fidelity. Results 50 of 135 eligible couples consented (37% recruitment yield). Five scheduled transplants were delayed or canceled; 7 couples withdrew prior to randomization or intervention start. Randomized couples (n=38) were mean age 59.5 (SD=9.6), 9% Hispanic ethnicity, and 93.4% White race. Among couples randomized to Mates in Motion (n=19) and commencing intervention (n=16), session attendance was perfect (8/8), and the intervention was delivered with high fidelity (99.2% of therapeutic elements addressed). Garmin wear adherence was high (>10 hours/day on 51/56 days, SD=11.4). Average steps/day rose from 4058 (SD=3113) to 6896 (SD=5310) among patients and from 5919 (SD=3379) to 8126 (SD=4470) among caregivers. Mean ratings for the treatment satisfaction items were all above 4.0 on a 1-5 scale. Conclusions Among participants commencing intervention, engagement and satisfaction were remarkably high. Patients and partners on average increased their steps distance 1.7 and 2.2 km per day, respectively. Implications for Policy and Practice Couples-based PA approaches offer a promising supplement to standard HCT care. Funding NIH grant R21CA275085.

Ireland

Monitoring Progress in Physical Activity Policy Implementation in Ireland: A Follow-up PA-EPI Study

AUTHORS

Volf, K.[1], García Bengoechea, E.[1], Woods, C.[1]

AFFILIATIONS

[1]*University of Limerick*

Background: The Physical Activity Environment Policy Index (PA-EPI) is a globally recognised tool for assessing government implementation of physical activity policies. Ireland conducted its first PA-EPI assessment in 2022, identifying strengths, gaps, and priority actions. The current study incorporates an enhanced focus on health equity, with equity statements guiding evidence interpretation and targeted stakeholder engagement to ensure that recommendations support physical activity among least active and most vulnerable population groups. This follow-up study evaluates progress since the initial assessment. Methods: The PA-EPI framework and methodology is being followed. The original 2022 Evidence Document (2022 ED) was updated through systematic searches to capture policy developments between 2022 and 2026. In parallel, the examples of international best practice were reviewed and strengthened. The 2026 ED was validated by civil servants across relevant sectors. The PA-EPI Council comprising independent experts –researchers, advocates, equity specialists and frontline workers - will individually rate the extent of policy implementation across the 45 PA-EPI indicators using an online questionnaire guided by comparison with the best practice exemplars. The Council will attend an in-person workshop to recommend evidence-based actions to address implementation gaps. Policymakers are invited to observe this prioritisation process. Results: Eleven Irish policymakers contributed 95 comments on the revised 2026 ED resulting in substantial changes since 2022. Eighty examples of international best practices were included in the 2026 ED, a 9% increase on the 2022 ED. Forty-eight PA-EPI experts are currently rating the extent of implementation of physical activity policies in Ireland. Eighty examples of international best practice were included in the 2026 Evidence Document, a 9% increase on the 2022 document. Conclusion: Environment policy index development is a dynamic process. Regular PA-EPI assessments provide a mechanism for monitoring policy progress, strengthening accountability, fostering multisectoral engagement and supports progressive enhancement of the physical activity policy environment.

Canada

Nature Parks on Schools Pilot Study: Community-Based Methodology Development

AUTHORS

Timby, A.[1], Buckler, J.[1]

AFFILIATIONS

[1]*University of Victoria*

Background Most children are not getting adequate physical activity, despite the evidence-based health benefits. Spending time in nature increases children's participation in physical activity, supports movement skill development, and decreases sedentary time. The BC Parks Foundation is installing large nature parks on schools in BC, Canada, which presented an opportunity for a natural experiment, comparing health and educational outcomes before and after the installations. Purpose The purpose of this study was to create a community-informed methodology for guiding data collection within the Nature Parks on Schools pilot study with interested parties. Methods The research team sought input from 65 individuals representing 31 organizations from nature conservation, policy and government, health, and education to address their goals for knowledge acquisition. After facilitating discussion and idea-formation with the partners, researchers grouped results by theme to identify the desired outcomes. Results Partner goals revealed consistent interests in specific areas of data collection. This included 24-hour movement behaviours, school health data (including teacher absenteeism), prosocial behaviours, schoolgrounds usage, and student mental health. Conclusions This pilot study will be a first of its kind natural experiment conducted to understand the impact of significant nature upgrades to schoolgrounds. Five participating schools will receive nature parks in spring 2026 with an additional 25 schools receiving nature parks across British Columbia within a year. Implications for Policy and Practice This study has large implications at a policy level as Nature Parks on Schools anticipates national uptake. Additionally, this research has implications for addressing the inequitable impacts of climate change, by improving equitable access to green spaces, which may support improved physical activity in children attending these schools. Funding if applicable Social Sciences and Humanities Research Council of Canada Partnership Development Grant and Canadian Institutes of Health Research Catalyst Grant.

Canada

Neighbourhood built-environment typologies, physical activity, and health-related fitness by immigrant status in Canada

AUTHORS

Masihay Akbar, H.[1], Lang, J.J.[2], Prince Ware, S.[2], Kwan, M.[3], Chowdhury, T.T.[4], McCormack, G.R.[5]

AFFILIATIONS

[1]*University of Calgary*

[2]*Centre for Surveillance and Applied Research, Health Promotion and Chronic Disease Prevention Branch, Public Health Agency of Canada*

[3]*Infant Child and youth Health Lab, Department of Child and Youth Studies, Brock University*

[4]*Department of Family Medicine, Cumming School of Medicine, University of Calgary*

[5]*Department of Community Health Sciences, Cumming School of Medicine, University of Calgary*

Background: Immigrants are an equity-deserving population whose physical activity (PA) and health often differ from non-immigrants, with differences varying by time since arrival. Few studies, however, have assessed how associations between built environment (BE) and PA and health-related fitness compare by immigrant status. This study explored associations between neighbourhood BE typologies derived using cluster analysis and PA and fitness by immigrant status (Canadian-born, recent immigrants <10 years, established immigrants ≥10 years). Methods: We conducted a cross-sectional analysis of multiple cycles of the Canadian Health Measures Survey linked to objective measures of walkability (Canadian Active Living Environments [Can-ALE]) and greenness (Normalized Difference Vegetation Index [NDVI]). Accelerometer-measured daily moderate-to-vigorous PA (MVPA) minutes and steps were available for 4674 adults, and VO_2max and grip strength for 3500 adults. Using k-medians clustering of dwelling density, intersection density, points of interest, and greenness, we derived neighbourhood typologies for ~820,000 urban postal codes, yielding three types: high-walkability/low-greenness (HW-LG), moderate-walkability/moderate-greenness (MW-MG), and low-walkability/high-greenness (LW-HG). Survey-weighted linear regression models estimated covariate-adjusted associations of neighbourhood type and immigrant status with PA and fitness outcomes, including interaction terms. Results: Relative to HW-LG neighbourhoods, residents of MW-MG and LW-HG neighbourhoods accumulated 7.2 (95%CI: -11.9, -2.4) and 9.8 (95%CI: -14.8, -4.8) fewer minutes of daily MVPA, with no effect modification by immigrant status. For steps, neighbourhood main effects were null, but immigrant status modified neighbourhood differences: the MW-MG vs HW-LG difference was ~1,960 steps/day larger in recent immigrants than in Canadian-born. Immigrant status also modified neighbourhood-VO_2max associations; among Canadian-born, VO_2max was lower in MW-MG (-1.11 $mL \cdot kg^{-1} \cdot min^{-1}$, 95%CI: -2.09, -0.14) and LW-HG (-1.72 $mL \cdot kg^{-1} \cdot min^{-1}$, 95%CI: -2.53, -0.90) relative to HW-LG neighbourhoods, with no associations evident among immigrants. Conclusions: Walkability and greenness matter for MVPA for everyone, but steps and VO_2max vary by immigrant status, suggesting both population- and place-based strategies may be needed.

Canada

Objective daily steps, step cadence, and quality of life across the breast cancer survivorship trajectory

AUTHORS

Jeff, V.[1], Friedenreich, C.[2], Matthews, C.[3], Wang, Q.[2], Yang, L.[2], McNeely, M.[4], Wagoner, C.[5], Culos-Reed, N.[6], Bell, G.[4], McNeil, J.[7], Dickau, L.[2], Courneya, K.[4]

AFFILIATIONS

[1]*Athabasca University*
[2]*Cancer Care Alberta*
[3]*National Cancer Institute*
[4]*University of Alberta*
[5]*University of Tennessee-Knoxville*
[6]*University of Calgary*
[7]*University of North Carolina at Greensboro*

Background Daily steps and step cadence may influence patient-reported outcomes (PROs) in newly diagnosed breast cancer survivors. Few studies have examined longitudinal associations between device-measured steps and step cadence and PROs in this population. Purpose To examine associations between daily steps and step cadence with health-related quality of life (QoL) and fatigue across three timepoints spanning 3 years post-diagnosis in the Alberta Moving Beyond Breast Cancer (AMBER) cohort. Methods Women newly diagnosed with breast cancer (N = 1,422) completed device-based activity assessments and validated PRO questionnaires at baseline (within 90 days of surgery), year 1, and year 3. Daily steps and step cadence (minutes/day stepping at >100 steps/minute for at least 1 minute) were measured using the activPAL accelerometer. QoL was assessed using the SF-36v2 Physical Component Summary (PCS) and Mental Component Summary (MCS), and fatigue using the FACIT-F. Linear mixed-effects models examined associations between step-based activity and PROs across three timepoints, adjusting for outcome-specific covariates and baseline light-intensity activity and MVPA. Results Participants averaged 7,307, 7,868, and 7,827 steps/day at baseline, year 1, and year 3. After adjustment, each additional 1,000 steps/day was independently associated with better PCS (unstandardized B = 0.36), MCS (B = 0.29), and lower fatigue (B = 0.39; all p's < 0.001). Each additional 10 minutes/day of stepping at >100 steps/minute was associated with better PCS (B = 0.56), MCS (B = 0.28), and lower fatigue (B = 0.51; all p's ≤ 0.01). PCS, MCS, and fatigue all improved significantly from baseline to years 1 and 3. PCS and fatigue continued improving through year 3. Conclusions Device-measured daily steps and step cadence were each independently associated with better QoL and lower fatigue across the 3-year survivorship trajectory starting at diagnosis. Implications for practice Encouraging step-based ambulatory activity represents a practical strategy for improving PROs in women diagnosed with breast cancer.

Australia

Parental Knowledge, Attitudes, and Perceived Usefulness of Australian Screen Time Guidelines for Toddlers and Preschoolers

AUTHORS

Thomas, G.[1], Lau, S.[2], Gomersall, S.[2], Stylianou, M.[2], Bourke, M.[3], Duncombe, S.[2], Vergeer, I.[4], Moraowska, A.[2], Trost, S.[2], Cairney, J.[2], Biddle, S.[4]

AFFILIATIONS

[1]*University of Queensland*
[2]*The University of Queensland*
[3]*Deakin University*
[4]*University of Southern Queensland*

Background: Managing screen use is a major concern for Australian parents of young children. However, little is known about how parents perceive, understand, and appraise national screen time guidelines for children under 5 years. Purpose: This study examined parental knowledge, attitudes, and perceived usefulness of the Australian screen time guidelines and explored associations with sociodemographic factors. Methods: Data were drawn from a cross-sectional online survey of Australian parents (n = 229) of young children aged between 1-5 years. Knowledge of screen time guidelines (multiple-choice item), attitudes (4 items; 5-point scale), and perceived usefulness (3 items; 5-point scale) were examined. Descriptive statistics were calculated for independent variables and regression models estimated to examine sociodemographic factors associated with knowledge, attitudes, and perceived usefulness. Results: Parents of toddlers were 4.45 times ($p < .001$) more likely to know the screen time guidelines than parents of preschoolers. Knowledge was lower among full-time employed and Indigenous parents ($p < .05$). Attitudes did not differ by demographics, but parents of girls rated the guidelines as more useful than parents of boys ($p = .038$). Higher attitude scores ($p = .017$) and greater perceived usefulness ($p = .047$) were associated with correctly identifying the guidelines. Conclusions: Knowledge gaps exist, particularly among parents of preschoolers, full-time employed, and Indigenous parents. Targeted education with diverse parent groups is needed to ensure guidelines are both understood and perceived as useful. Implications for Policy and Practice: Inclusive guidelines, supported by tailored education and implementation strategies for key parent groups, may improve understanding and uptake in realistic family contexts.

Norway

Physical activity and fatigue development in child and adolescent cancer survivors. The PACCS study

AUTHORS

Bratteteig, M.[1], Grydeland, M.[2], Lie, H.[3], Larsen, E.[4], Thorsen, L.[5], Ruud, E.[4], Anderssen, S.[6], Raastad, T.[2], Torsvik, I.[7], Fridh, M.[8], Järvelä, L.[9], Götte, M.[10], Schindera, C.[11], Perrier, F.[12], Rueegg, C.[13]

AFFILIATIONS

[1]*Oslo University Hospital*

[2]*Department of Physical Performance, Norwegian School of Sport Sciences*

[3]*Department of Behavioural Medicine, Institute of Basic Medical Sciences, University of Oslo*

[4]*Department of Pediatric Hematology and Oncology, Oslo University Hospital*

[5]*Department of Clinical Service, Division of Cancer Medicine, Oslo University Hospital*

[6]*Department of Sports Medicine, Norwegian School of Sport Sciences*

[7]*Department of Paediatrics, Haukeland University Hospital*

[8]*Department of Pediatrics and Adolescent Medicine, Copenhagen University Hospital - Rigshospitalet*

[9]*Department of Pediatric and and Adolescent Medicine, Turku University Hospital*

[10]*West German Cancer Center, University Hospital Essen*

[11]*Paediatric Oncology/Haematology, University Children's Hospital Basel*

[12]*Oslo Centre for Biostatistics and Epidemiology, Institute of Basic Medical Sciences, University of Oslo*

[13]*Oslo Centre for Biostatistics and Epidemiology, Oslo University Hospital*

Background Cancer-related fatigue is a common late effect in childhood cancer survivors (CCS). Purpose To describe longitudinal change in fatigue and estimate the association between volume and intensities of device-measured physical activity (PA) and fatigue development in CCS. Methods We included CCS (≥1-year post-treatment) aged 9-16 years from the international Physical Activity in Childhood Cancer Survivors (PACCS) study, who self-reported fatigue (PedsQL–Multidimensional Fatigue Scale) at baseline and follow-up. Total fatigue score (range 0-100) was categorized as low (≥67.2), moderate (≥53.8<67.2) or severe fatigue (<53.8). PA and sedentary time were assessed (ActiGraph GT3X+) at baseline. Fatigue development from baseline to follow-up was described using a Sankey plot. Multilevel multivariable linear regression models were used to examine associations between PA volume (steps) and intensities (minutes in light, moderate, and vigorous) with fatigue development, overall and stratified by levels of fatigue at baseline (low vs. moderate/severe fatigue). Results We included 100 CCS aged on average 12.1±2.0 years at baseline and 14.1±2.5 years at follow-up (mean age at diagnosis 5.1±3.3 years, 50% leukemia). One in four reported deteriorations in fatigue (26%), few improved (7%), whereas the majority remained stable (67%). Replacing 10 min/day of sedentary time with light PA tended to be associated with improved fatigue from baseline to follow-up (β=0.6, 95%CI: -0.0, 1.2, P=0.053).Vigorous PA tended to be associated with a worsening in fatigue among those with moderate/severe fatigue at baseline (β=-3.7, 95%CI: -7.6, 0.3, P=0.073). Conclusions A substantial proportion of CCS experienced worsening fatigue over time. Light PA were tendentially associated with more favorable fatigue development, while vigorous PA showed a potential association with increased fatigue among CCS with moderate/severe fatigue at baseline. Implications for Policy and Practice PA intensity may play a role in fatigue development and highlight the importance of considering baseline fatigue levels when promoting PA in this population.

Brazil

Physical activity in adolescents: does self-report meet objective measures?

AUTHORS

Maccarini Pandolfo, K.C.[1], Pereira Barros, T.V.[2], Carneiro Tura, N.[2], Avila Froehlich, M.[2], Reckelberg Azambuja, C.[2], Lopes dos Santos, D.[2]

AFFILIATIONS

[1]*UFSM*

[2]*Graduate Program in Movement and Rehabilitation Sciences – UFSM, Brazil Exercise Physiology Laboratory (LAFIEX – UFSM)*

Background: It is well stablished that physically active adolescents tend to adopt a more active lifestyle throughout life, presenting better health outcomes. Thus, accurate measurement of physical activity (PA) in adolescents is essential for surveillance and public health planning; however, self-reported instruments are prone to recall and perception bias, whereas device-based methods such as accelerometry provide more objective estimates of physically active and sedentary behaviors. Purpose: To compare self-reported and accelerometer-measured PA levels and sedentary behavior among adolescents from a city in southern Brazil. Methods: This cross-sectional study included 55 adolescents of both sexes (mean age: 16.4 ± 1.06 years) enrolled in state public, federal, and private schools. PA levels were assessed using the short version of the International Physical Activity Questionnaire (IPAQ) and accelerometry (Actigraph GT3X). Statistical analyses included descriptive statistics, Student's t test, and Spearman's correlation ($p<0,05$). Results: Most adolescents did not meet the PA levels recommended by the Brazilian guidelines and spent more time in sedentary behavior than recommended. Significant differences were observed between self-reported and accelerometer-measured time spent in PA and sedentary behavior, indicating overestimation of PA and underestimation of sedentary time in self-reports. Conclusions: Self-reported measures substantially differed from accelerometer-based assessments of PA and sedentary behavior among the studied adolescents. Moreover, most of the group is insufficiently active and spend excessive time in sedentary behavior. Implications for Policy and Practice: Reliance solely on self-reported instruments may lead to misclassification of adolescent PA levels. Incorporating objective measures, when feasible, may improve PA surveillance and support more effective public health strategies targeting youth physical activity and sedentary behavior. Keywords: Physical activity; Accelerometry; Self-report; Measurement; Adolescents; Sedentary behavior

United States

Physical Inactivity, Mental Health, and Social Connectivity: A National Ecological Analysis

AUTHORS

Wende, M.[1], Hughey, S.M.[2], Kaczynski, A.T.[3]

AFFILIATIONS

[1]*University of Florida*
[2]*College of Charleston*
[3]*University of South Carolina*

Background: Connecting physical inactivity to social and emotional outcomes is vital for developing holistic public health interventions that address individual and community mental health. Purpose: This study investigated the association between county-level physical inactivity and mental distress, depression, social isolation, and lack of social support. Methods: This cross-sectional ecological study was conducted among all United States counties (N=3142). Measures were model-based, age-adjusted prevalence (%) among adults from the 2022 CDC Behavioral Risk Factor Surveillance System. Physical inactivity was defined as the percentage of residents reporting no leisure-time physical activity (PA). Mental health outcomes included frequent mental distress (>14 days of poor mental health/month) and diagnosed depression. Social outcomes included the reported prevalence of feeling socially isolated and lacking social/emotional support. General Linear Models analyzed associations between physical inactivity and all four outcomes, adjusting for county rurality (defined by Rural-Urban Continuum Codes) and the CDC Social Vulnerability Index. Results: For every 1% increase in physical inactivity, there was a significant increase in mental distress (β=0.285, p<.0001, R2=0.5103) and prevalence of depression (β=0.183, p<.0001, R2= 0.0802). For social metrics, a 1% increase in physical inactivity corresponded to a significant increase in lack of social or emotional support (β=0.233, p<.0001, R2=0.5185) and in social isolation (β=0.125, p<.0001, R2=0.2911). Conclusion: Physical inactivity was significantly associated with a higher prevalence of poor mental health and social disconnection. Results underscore that PA promotion is not only a physical health priority but also a critical tool for reducing psychological distress and fostering community social connectedness. Implications for Policy and Practice: Interventions to promote PA should be prioritized to address growing public health concerns of social isolation and declining mental well-being. Policymakers should focus on PA infrastructure (e.g., accessible parks) and programs (e.g., walking groups) to facilitate social interaction and support improved mental health.

Canada

Pragmatic evaluation of an e-learning module to increase knowledge and awareness of 24-Hour Movement Guidelines

AUTHORS

Carson, V.[1], Boyd, M.[1], Kern, C.[1], Potter, M.[1], Cornish, S.[2], Duncan, M.[3], Faulkner, G.[4], Giangregorio, L.[5], Harris, S.[5], Jackson, R.[6], Kuzik, N.[1], Ross, R.[7], Tomasone, J.[7], Tucker, T.[8], Vanderloo, L.[3]

AFFILIATIONS

[1]*University of Alberta*
[2]*University of Manitoba*
[3]*ParticipACTION*
[4]*University of British Columbia*
[5]*University of Waterloo*
[6]*Nipissing University*
[7]*Queen's University*
[8]*Western University*

Background: Despite the time and financial investment in developing the Canadian 24-Hour Movement Guidelines (24HRMG), national guideline knowledge and awareness remains low. Future educators and exercise and health professionals may be critical intermediaries in disseminating the 24HRMG to the public. Purpose: A pragmatic evaluation of: 1) usefulness, satisfaction, feasibility, and acceptability of a 24HRMG e-learning module among post-secondary students and key program contacts in education and health- and exercise-related programs in Canada; and 2) knowledge and changes in awareness of the 24HRMG among students completing the module. Methods: An interactive English and French 24HRMG e-learning module was professionally created using content developed by an expert group. Participants included 52 post-secondary students across 14 universities and 20 key program contacts across 16 universities. Post-secondary students completed the module along with a pre- and post-questionnaire. Key program contacts reviewed a module prototype and completed a post-questionnaire. A sub-set of participants completed interviews. Descriptive statistics (i.e., percentages) were calculated and thematic analyses will be conducted. Results: Most students (92-97%) and key program contacts (90-100%) agreed/strongly agreed that the module was useful and that they were satisfied with the experience and content. Most key program contacts agreed/strongly agreed that it would be feasible to promote the module to students (90%) and instructors (80%). Feasibility was higher for voluntary (100% agree/strongly agree) versus mandatory (60%) implementation into programs. On average, 89% of students correctly answered 24HRMG knowledge questions. Awareness of the 24HRMG increased by 58-66%, across age groups. Conclusions: Findings provide preliminary insights regarding implementing the module into post-secondary programs. Future qualitative analyses will explore acceptability. Implications for Policy and Practice: Increasing guideline knowledge and awareness is an important first step in increasing the proportion of Canadians who meet the 24HRMG. Funding: Canadian Society of Exercise Physiology through the Public Health Agency of Canada

Canada

Predictors of One-Year Participation in a Community-Based Fall-Prevention Exercise Program Among Adults aged 50+

AUTHORS

Leadbetter, B.[1], Sibley, K.M.[2], Bouchard, D.R.[1]

AFFILIATIONS

[1]*University of New Brunswick*
[2]*University of Manitoba*

Background: Exercise is the most effective independent strategy for reducing fall risk in aging adults, especially when people exercise year-round for 3+ hours per week and include balance-challenging activities. To help people meet these guidelines, community exercise programs are widely implemented worldwide. However, participation is often inconsistent, which substantially reduces the potential for fall-risk reduction. Identifying factors that predict long-term participation may help organizations better support sustained participant engagement. Purpose: To identify baseline predictors of 1-year participation in a community-based fall-prevention exercise program among adults aged 50+. Methods: Data from 226 participants aged 50+ (average age: 66.4 ± 0.9 years; 94.1% female) newly enrolled in a community fall-prevention exercise program were analyzed. The program was offered in four 10–12-week sessions over 12-months. Logistic regression was used to examine baseline predictors of participation at one year. The main outcome was participation in the exercise program at 1-year follow-up (yes/no). Baseline predictors included demographics, chronic conditions, physical activity, sedentary behaviour, fall history, balance confidence, and health-related quality of life. Results: Out of 226 participants enrolled, 108 (47.8%) remained in the program after one year. Higher baseline sedentary behaviour (10.5±4.7 vs. 9.1±4.3 hours per day) was independently associated with lower odds of participation at one year (OR: 0.93, 95% CI: 0.87-1.00, p=0.04). No other variables were significantly associated with ongoing participation after 1 year. Conclusions: Baseline sedentary behaviour was the primary predictor of long-term participation in a community-based fall-prevention exercise program among adults aged 50+. For each additional hour of sedentary behaviour at baseline, the risk of dropping out of the program by one year decreased by 7%. Implications for Policy and Practice: Community fall-prevention exercise programs may benefit from incorporating targeted strategies to support engagement among highly sedentary individuals.

Funding: Canadian Institutes of Health Research Healthy Cities Implementation Science team grant.

Canada

Radiography on Wheels

AUTHORS

Kent, D.[1], Boucher, H.[1], Donovan, C.[1], McCloskey, R.[2]

AFFILIATIONS

[1]*Loch Lomond Villa*

[2]*Department of Nursing & Health Sciences, University of New Brunswick*

Background: In most Canadian provinces, when diagnostic services are required residents in long-term care (LTC) are transferred to the hospital. Upwards of 80% of LTC residents have cognitive impairments, and hospital transfers can be physically and emotionally challenging. Identifying solutions to decrease hospital transfers and provide care in residents' homes may improve efficiency, resident outcomes, reduce hospital crowding, and lower healthcare costs. Purpose: To examine the impact of a mobile X-ray service on health resource utilization, access to diagnostic services, and resident, family and staff experiences. Methods: The mixed-methods pilot study included 16 participating LTC homes in Southern New Brunswick (NB). The 11-month intervention took place from May 16, 2022, to March 31, 2023. Any resident living at a participating LTC home was eligible if the ordering practitioner deemed the service appropriate. The resident and/or substitute-decision maker could decline the service. Data collection sheets were completed by each participating LTC site. Focus groups were conducted with families, residents, and staff mid- and post-intervention using a deductive thematic approach. Results: Major themes were person-centred care, efficiency, quality of care, and systemic impact. 553 X-ray exams were completed for 378 residents. 94% (n=354) of residents avoided transfers to the hospital after using the mobile X-ray. The most common reasons for requiring the mobile X-ray were falls (n=111, 20.1%), pain (n=97, 17.5%), and change in status (n=60, 10.9%). The cost-minimization analysis indicated that the mobile X-ray service ($461/exam) was more cost-effective than traditional hospital X-ray costs ($2453/exam). Conclusion: The intervention improved access to quality, person-centred care while avoiding the need to transport some residents to hospitals and reducing demand on hospital services. The mobile X-ray service is now offered by the Extra-Mural Program to all LTC home residents in NB. Funding: Public Health Agency of Canada through the Healthy Senior Pilot Grant

United States

Ready to coach? Assessing readiness for participant testing of a large language model-based exercise coach

AUTHORS

Norton, K.[1], Altizer, R.[1], Del Fiol, G.[1], Bai, Y.[1], Githinji, P.[1], Kawamoto, K.[1], Estabrooks, P.[1]

AFFILIATIONS

[1]*University of Utah*

Background While AI-based physical activity interventions are increasingly common, few studies report early-stage testing criteria to determine whether large language model (LLM)-based interventions are sufficiently accurate, safe, and theoretically aligned prior to user-centered design or pilot testing. Purpose To describe expert evaluation of a Virtual Physical Activity Coach (VPAC) and establish a criterion for readiness before testing with participants. Methods The VPAC was designed with ChatGPT 4o using prompt-based instructions grounded in the 2018 PA Guidelines for Americans and the 5As framework for behavior change. Using Social Cognitive Theory, the VPAC takes an interactive, conversational approach to develop a tailored PA action plan. To evaluate readiness for pilot testing, ten experienced health coaches completed two simulated sessions with VPAC while providing concurrent think-aloud feedback. Health coaches rated each session on tone, clarity, program accuracy, domain accuracy, robustness, efficiency, boundaries, and usability on a scale of 1 (unacceptable) to 5 (exceeds expectations). An aggregate quantitative score of ≥4 was the a priori standard for readiness. Results Preliminary findings demonstrated that tone (4.1), clarity (4.1), program accuracy (4.0), robustness (4.1), efficacy (4.3), boundaries (4.4), and usability (4.4) were all acceptable, though domain accuracy (3.9) was under the acceptability threshold. Qualitative feedback indicated that coaches valued VPAC's ability to engage in barrier resolution to increase the likelihood of participant goal achievement. Coaches recommended additional open-ended questions to understand the participants context before providing a physical activity (PA) prescription. Finally, coaches also recommended the VPAC direct participants to resources (e.g., contact information) for health behavior questions outside the boundaries of PA. Conclusion Expert evaluation indicated the VPAC had acceptable accuracy, safety, and behavioral fidelity though additional work on domain accuracy is needed. Implications for Policy and Practice This study outlines a pragmatic readiness framework for evaluating LLM-based PA interventions prior to user testing.

Australia

Seeing the Bigger Picture: Exploring Children's Screen Use and Outcomes through Collaborative Data Analysis

AUTHORS

Sanders, T.[1], Conigrave, J.[2], Noetel, M.[3], Pagano, R.[1], Gordon, C.[1], Booker, B.[1], Lonsdale, C.[1], Werner-Seidler, A.[4], Straker, L.[5], Cliff, D.[6]

AFFILIATIONS

[1]*Australian Catholic University*
[2]*La Trobe University*
[3]*University of Queensland*
[4]*University of New South Wales*
[5]*Curtin University*
[6]*University of Wollongong*

Background Debate continues about whether, when, and for whom children's screen use is harmful or beneficial. Much of the evidence is fragmented, relies on broad "total screen time" measures, and cannot reliably identify dose thresholds or content-specific effects. Purpose To clarify dose-response relationships between disaggregated screen use (by type/content) and children's learning, cognitive abilities, mental health, wellbeing, and behaviour, and to test whether associations vary by child and contextual characteristics. Methods We are conducting an individual participant data (IPD) meta-analysis pooling de-identified data from eligible studies with quantitative, disaggregated screen-use measures and at least one outcome of interest in participants aged <18 years. We identified studies via five targeted database searches (2010 onwards) supplemented with studies from a prior umbrella review. A large-language-model (LLM) workflow supported title/abstract screening, full-text triage, and extraction of study metadata and contact details. After harmonisation, we will apply piecewise regression to estimate potential thresholds where associations shift, examine content/type-specific effects, and test moderation (e.g., age, gender, socioeconomic status, home vs school), controlling multiplicity using a tiered false discovery rate procedure. Results Searches identified 64,722 records; 56,662 were screened and 5,852 full texts assessed, yielding 1,875 studies eligible for extraction. These studies resulted in 1,495 candidate datasets. To date, approximately 600 data custodians have been contacted. We have received IPD from 45 studies, totalling 1,102,255 participants. Conclusions This project is assembling one of the largest IPD resources to date to evaluate screen use and child outcomes, enabling more precise, content-specific and threshold-focused inference than aggregate-study evidence. Implications for Policy and Practice Findings will support clearer, evidence-based guidance that distinguishes screen content/type and identifies practical ranges where risks or benefits may change, helping parents, educators, and policymakers move beyond "one-size-fits-all" limits. Funding (if applicable) NSW Department of Education Screen Fund

Finland

Sitting Time and Healthcare Costs at Midlife in a Finnish Cohort

AUTHORS

Akhavan Rad, S.[1], Torkki, P.[2], Korpelainen, R.[3], patija, K.[4], Kiwanuka, F.[5], Ryynänen, K.[6], Leinonen, A.M.[7], Vaarsmo, M.[8]

AFFILIATIONS

[1]*University of Helsinki*
[2]*Associated professor University of Helsinki*
[3]*Full professor University of Oulu*
[4]*Full professor University of Helsinki*
[5]*Post-doc, University of Eastern Finland*
[6]*health care and physiatry at Oulu University*
[7]*Post-doc, University of Oulu*
[8]*Researcher, University of Oulu*

Purpose: Prolonged sitting is associated with adverse health outcomes, but its economic impact, particularly across different domains, is less well understood. This study examined domain-specific sitting time (work and leisure) and its association with healthcare costs at midlife. Methods: This was a cross-sectional analysis of the Northern Finland Birth Cohort 1966. Participants (n=7147) were Finnish adults aged 46 years, with data collected between 2012 and 2014. Sitting time was self-reported for work and leisure domains. Healthcare costs were estimated from public, private, and occupational primary healthcare visits using unit costs from the Finnish Institute for Health and Welfare. Associations were examined using generalized linear models with a gamma distribution and log link, adjusting for potential confounders. Results: Total sitting time was 7.3 hours/day (SD=3.3), including 4.0 hours/day during leisure and 3.4 hours/day at work. In adjusted analyses, participants in the second quartile of work-related sitting (1.01–3.00 hours/day) had approximately 20% higher annual primary healthcare costs compared with those in the lowest quartile (p=0.025). Leisure-time sitting showed no independent association with healthcare costs. Overweight and poor self-rated health were also associated with higher healthcare costs. Conclusions: Work-related sitting, but not leisure-time sitting, was associated with higher primary healthcare costs at midlife, highlighting the economic impact of occupational sedentary behavior. Implications for Policy and Practice: Workplace strategies targeting reductions in occupational sitting may help lower healthcare costs. Interventions should prioritize reducing sitting time during work hours and promoting active work environments to improve both health and economic outcomes. Funding: Funded by the University of Helsinki and the University of Oulu, Finland.

United States

Structural and Economic Barriers to Physical Activity in Head Start: A Health Promoting Schools Perspective

AUTHORS

Alkakooz, A.[1], Soria, I.[1]

AFFILIATIONS

[1]*Arizona State University*

Background: Phoenix-based headstart programs, find structural and economic barriers promoting PA, including staff training deficiencies, inadequate funding for climate controlled indoor spaces and shaded outdoor play places, and family-level socioeconomic challenges such as the lack of transportation combined with schedule restraints. Purpose: To diagnose resource, delivery, and engagement barriers within an 18-site Head Start network using the Health Promoting Schools (HPS) framework to establish design goals for an inclusive PA model. Methods: This study surveyed 149 participants (70.0% Hispanic/Latino; 54.4% Spanish-speaking) using a mixed-methods approach during pick-up and drop-off times. By applying the HPS framework, the analysis evaluated barriers within the network's organizational environment and physical spaces, its curriculum, and its level of family and community partnerships Results: Although 95.3% of participants agreed and/or strongly agreed PA supports child development, economic hurdles remain. 69.1% of participants cited cost, transportation, and resource scarcity as obstacles to family involvement. On-site, PA delivery was also hampered by schedule conflicts and Phoenix's extreme heat. With only 13.5% of current programming including families, a majority (83.2%) advocated for community partnerships to address essential staffing and equipment shortage. Conclusions: Families do not lack the desire to promote PA but rather lack the resources on the family-level. PA equity can be achieved through targeting the costs of transportation for the family and offering a safe environment for youth active play including climate-control spaces. Additional staff training regarding local barriers including cultural-appropriate practices and heat safety education would also increase PA accessibility. Implications for Policy and Practice: To foster equity, policies should fund heat-safe environments and community-shared resources. Practically, administrators can increase family participation by designing flexible program schedules and employing culturally and linguistically inclusive outreach co-designed with parent leaders. Funding: Supported by the Arizona State University School of Social Work SSW SPARK Seed Grant Program

United States

Subgroup Trends and Disparities in U.S. Youth Movement Behaviors 2016–2023

AUTHORS

Bai, Y.[1], Ryu, S.[2], Jiang, Q.[3], Carlson, J.[2], Grimes, A.[4], Hasson, R.[5], Hanson, B.[6], Hibbing, P.[7], Moon, M.[2], Staiano, A.[8], McKnight, A.[9], Fairbairn, C.[2], Greenberg, J.[10], Fox, A.[2], Dodson, B.[11], Dooley, E.[12], Stanish, H.[13], Haegele, J.A.[14], Spring, K.[8], Webber-Ritchey, K.[15], Serrano, N.[16], Pate, R.[17]

AFFILIATIONS

[1]*University of Utah*
[2]*Children's Mercy Kansas City*
[3]*University of Central Florida*
[4]*University of Missouri-Kansas City*
[5]*University of Michigan*
[6]*University of Kansas Medical Center*
[7]*University of Illinois Chicago*
[8]*Pennington Biomedical Research Center*
[9]*Physical Activity Alliance*
[10]*International Sport and Culture Association*
[11]*Washington University*
[12]*University of Alabama at Birmingham*
[13]*University of Massachusetts Boston*
[14]*jhaegele@odu.edu*
[15]*DePaul University*
[16]*University of North Carolina*
[17]*University of South Carolina*

Background: According to the 2024 U.S. Report Card on Physical Activity (PA) for Children and Youth, national performance across multiple indicators of movement behaviors remains poor. Purpose: Using eight years of National Survey of Children's Health data, this study examined temporal trends in multiple behavior indicators and neighborhood features from 2016 to 2023 and evaluated sex and socioeconomic disparities. Methods: Serial cross-sectional analyses included 217,814 U.S. children and youth aged 6–17 years from a nationally representative sample. Dependent variables were meeting PA, screen time (ST) and sleep guidelines; organized sports participation; and neighborhood determinants including safety, sidewalks/walking paths, and parks/playgrounds. Weighted prevalence and modified Poisson models estimated trends and prevalence ratios (PRs) from 2023 relative to year 2016, adjusting for demographic factors. Sex race/ethnicity, and socioeconomic-stratified analyses were used to assess disparities. Results: Adjusted PA adherence declined from 23.65% in 2016 to 20.35% in 2023 (PR=0.86, 95% CI: 0.81–0.92). ST guideline adherence decreased sharply from 54.79% in 2018 to 50.99% in 2023. Sleep adherence remained relatively stable (66.55-64.88%) with a slight dip in 2022–2023 (PR=0.97, 0.95–1.00). Organized sports participation declined from 58.5% in 2016 to 55.4% in 2023, with the lowest point of 48.4% in 2021. More than 74% parents reporting access to sidewalks or parks and over 94% reporting that their neighborhood felt safe. Youth with lower socioeconomic status had persistently lower PA and sleep. Interaction patterns indicated the largest disadvantages among girls with lower socioeconomic status. Unequal patterns of PA, sleep, and sports participation across racial/ethnic groups were found. Conclusions: From 2016 to 2023, PA and sports participation declined while ST increased, and sleep remained stable. Implications for Policy and Practice: Efforts to increase PA should prioritize multiple sources, reduce barriers to sports participation, and include targeted programming for girls from low socioeconomic status.

United Kingdom

Submaximal exercise test performance to explain variability in QoL scores following an LTC exercise programme

AUTHORS

Price, B.[1], Parmley, J.[2], Marshall, Z.[2], Panayiotis, M.[3], Doherty, P.[4], Yeowell, G.[5], Fatoye, F.[5], Harwood, A.[2], Cable, N.[2], Innes, A.[6], Deniszczy, D.[6], France-Ratcliffe, M.[7]

AFFILIATIONS

[1]*Manchester Metropolitan University*

[2]*Institute of Sport, Manchester Metropolitan University, Manchester, UK*

[3]*Faculty of Health and Education, Manchester Metropolitan University, Manchester, UK ;*

[4]*Department of Health Sciences, University of York, York, UK*

[5]*Faculty of Health and Education, Manchester Metropolitan University, Manchester, UK*

[6]*Nuffield Health, Epsom, Surrey, UK*

[7]*Institute of Sport, Manchester Metropolitan University, Manchester, UK*

Background Long-term health conditions (LTCs) are associated with significant healthcare use and reduced quality of life (QoL). Supervised exercise can improve QoL and may reduce healthcare use for patients with LTCs. However, exercise responses vary among adults with LTCs, and predictors of QoL outcomes remain unclear. As cardiorespiratory fitness is positively associated with QoL, submaximal exercise tests may help explain variability in QoL scores following an exercise programme. Purpose To determine whether the Six Minute Walk Test (6MWT) and a submaximal Modified Bruce Walking Test (BWTT) explain QoL outcomes following a 12-week LTC supervised exercise programme. Methods In a longitudinal observational cohort study design, participants are recruited for a 12-week, twice-weekly, supervised group exercise programme. Submaximal test performance (6MWT [10 or 15 m] or the BWTT) is measured at weeks 0 and 13, whilst QoL scores (EQ-5D) are measured at weeks 0, 13, and 24. Linear mixed models quantify the association between submaximal test performance and changes in EQ-5D, adjusting for age, sex, and the number of LTCs. The explanatory contribution of the submaximal exercise test variability in EQ-5D scores is assessed using marginal R^2 and the Akaike Information Criterion. Results Adults with ≥1 LTC (n = 213), including cardiovascular, metabolic, respiratory and musculoskeletal conditions, were recruited between October and December 2025. Participants completed either a 6MWT (10 m course, n=78; 15 m course, n=67) or a modified Bruce walking treadmill test (BWTT, n=68). Conclusion This study will clarify whether the 6MWT and BWTT can explain changes in QoL following an LTC supervised programme. Implications for Policy and Practice Submaximal exercise testing may explain how QoL responses vary after supervised exercise among adults with LTCs, supporting the redesign of LTC exercise programmes to improve QoL across a whole cohort of patients with LTCs. Funding Manchester Metropolitan University and Nuffield Health Partnership.



Canada

Supporting Transplant Patients through Exercise: Year One Implementation Outcomes from the Transplant Wellness Program

AUTHORS

Sim, J.[1], Low, J.[1], Perinpanayagam, M.[1], Mustata, S.[1], Burak, K.W.[1], Culos-Reed, S.N.[1]

AFFILIATIONS

[1]*University of Calgary*

Background: Exercise interventions are an evidence-based tool which can support patient health and well-being before and after organ transplant. Evaluating implementation can support integration of exercise interventions into clinical practice. This study evaluates the first-year delivery of the Transplant Wellness Program (TWP) hybrid effectiveness-implementation trial. Methods: The TWP is a 12-week exercise intervention delivered primarily pre-transplant, including individual and group-based exercise sessions and behaviour change counselling. Implementation metrics include time to deliver the intervention (consent-to-start time and total time), enrolment proportion, program completion (defined as pre- and post-intervention measurement completion), and exercise session adherence. A-priori targets for enrolment proportion and program completion were 60% and 75%, respectively. Generalized linear models examined the association between consent-to-start time, organ transplant type, and adherence. All models were adjusted for participant age and sex. Results: From January 2024 - 2025, 117 patients were contacted, 60 signed consent (51% enrolment), with n=44 kidney and n=16 liver patients. Program completion was 79% and mean exercise session adherence was 64% (SD=24.4). Consent-to-start time ranged from 7 to 201 days (median=28 days; IQR=30.5), and total intervention time ranged from 85 to 295 days (median=126 days; IQR 47.5). Analyses identified a significant association between organ type and adherence, with liver patients having 23.7% better adherence than kidney ($p = 0.017$). Consent-to-start time was not significantly associated with adherence and did not differ between organ groups. Conclusions: The TWP met the a-priori completion threshold and demonstrated moderate exercise session adherence, however the target enrolment proportion was not met and time to deliver the intervention varied widely. To increase enrolment and adherence, eligibility criteria was expanded to include liver patients within 1-year post-transplant and a mid-intervention behavioural counselling call was added. Ongoing quality improvement will inform future adaptations with full trial implementation evaluation planned for Fall 2026.

United States

Sustained Moderate to Vigorous Physical Activity Episode Patterns in Children

AUTHORS

Han, J.[1], Hughey, S.M.[2], Schipperijn, J.[3], Hipp, J.A.[4]

AFFILIATIONS

[1]*North Carolina State University*

[2]*Department of Health and Human Performance, School of Health Sciences, College of Charleston, Charleston, USA*

[3]*Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark*

[4]*Department of Parks, Recreation and Tourism Management and Center for Geospatial Analytics, North Carolina State University, Raleigh, USA*

Background: To better capture children's active play, we examined consecutive play episodes via count and duration by child and visit characteristics; moving beyond total minutes or average intensity. Play episodes are chains of measured movement across play spaces. Purpose: To quantify MVPA episode patterns (episode count, duration, and total MVPA time) and test how these patterns vary by child and visit characteristics. Methods: We analyzed children's GPS and accelerometer data collected at playgrounds in Charleston, SC, and linked data to guardian surveys. MVPA episodes were ≥5 consecutive 15-sec MVPA epochs (≥1 min; Evenson et al., 2008); outcomes were episode count, mean duration, and total MVPA time by child, and visit characteristics. Results: Of 4,555 epochs, 2,265 (49.7%) were MVPA and 1,263 (55.8%) formed episodes ≥1 min. Episode counts were higher for girls (IRR 1.40, 95% CI 1.10–1.77), ages 9–11 (1.55, 1.10-2.19), and first-time visitors (2.11, 1.68-2.64), lower for visit >once/week (0.56, 0.43-0.73) or monthly (0.63, 0.43-0.92). Episode length did not differ. Total MVPA time was higher for girls (ratio 1.55, 1.11-2.16) and first-time visitors (1.76, 1.17-2.63), but lower for >once/week (0.52, 0.30-0.90) (ref: boys, ages 5–6, repeat visitors, <5 min, daily). Conclusions: MVPA occurred in short bouts, and girls had more episodes and total MVPA time than boys, contrasting with prior work on short bouts (Ussery et al., 2020). GPS and amenity-level data can identify features driving these differences. Implications for Policy and Practice: Episode-based metrics and GPS-linked, amenity-level assessments can guide targeted playground upgrades and equitable investment to support sustained MVPA. Funding: Funding provided by the World Playground Research Institute, supported by Kompan.


Australia

Telehealth physical activity coaching for older adults and disabled people: the PROPOSE implementation-effectiveness trial

AUTHORS

Baldwin, J.[1], Purcell, K.[1], Dawson, J.[1], Savage, R.[1], Hassett, L.[1], Tiedemann, A.[1], Pinheiro, M.[1], Haynes, A.[1], West, K.[2], Sherrington, C.[1]

AFFILIATIONS

[1]*University of Sydney*
[2]*Sydney Children's Hospitals Network*

Background Tailored interventions that address barriers to physical activity (PA) for priority populations are needed. Purpose To investigate the effectiveness of telehealth coaching on PA among older adults and disabled people and explored future implementation. Methods PROPOSE was a type 1 implementation-effectiveness randomised controlled trial. Older adults and adults with disability attending outpatient hospital physiotherapy were randomised to receive telehealth coaching (2-6 sessions) or a PA booklet (control). Telehealth coaching was delivered by physiotherapists trained in health coaching and included an assessment, identifying suitable PA opportunities, goal setting, developing a tailored plan, and health coaching using motivational interviewing. Effectiveness outcomes included steps/day, moderate-vigorous PA (ActiGraph) and self-reported PA, analysed using linear regression. Implementation data included dose delivered, acceptability and satisfaction, collected via study documents, surveys and interviews, and analysed using descriptive statistics and inductive content analysis. Results Thirty-six patients (mean age 64 years, 26 female) were randomised, with recruitment affected by COVID-19. All intervention participants (n=18) received an assessment plus health coaching (mean 4 [SD 1] sessions, 43 [15] minutes). Intervention participants had a higher step count (between group difference 2402.7 [95% CI 146.6 to 4658.9] steps/day) and greater walking activity (2.5 [0.1 to 4.9] hours/week at 3 months. No other differences were detected. Participants valued the physiotherapists' knowledge and interpersonal skills, reporting physical, emotional and social benefits. Themes of supportive accountability, surpassing self-expectations, collaborative tailoring and lifelong change were identified. Conclusions Telehealth coaching increased walking activity, but not moderate-vigorous PA, among older adults and disabled people. Practice points: - Older adults and disabled people face additional barriers to PA participation - Telehealth coaching is a potentially effective and scalable intervention to increase PA among older adults and disabled people Funding Medical Research Future Fund.

United States

Temporal changes in sleep and physical activity among adolescents before, during, and after COVID-19

AUTHORS

Tenorio, C.M.[1], Kpene, G.E.[1], Leao, O.[1], Miranda Tassitano, R.[1]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*

Introduction: Adolescent sleep deprivation is a public health issue linked to health outcomes, and physical activity is known to support better sleep, however, its role across different pandemic periods remains unclear. This study aimed to describe the prevalence of adequate sleep and sufficient physical activity among high school students across three time points and to examine whether the temporal context modified the association between physical activity and adequate sleep. Methods: Data from 8,151 high school students in grades 9–12 from the Illinois Youth Risk Behavior Surveillance System (YRBSS). Three periods were evaluated: pre-COVID (2019), COVID (2021), and post-COVID (2023). PA was defined as ≥60 minutes of activity on at least 5 days/week, and adequate sleep as ≥8 hours/night. Logistic regression models assessed the association between PA and adequate sleep, adjusting for sex, race/ethnicity, and age. Survey weights were applied, and analyses were conducted in R. Results: 19.68% of participants reported adequate sleep (20.06% pre-COVID, 19.34% COVID, 19.63% post-COVID). Most students slept 6–7 hours. More males than females reported adequate sleep (55% vs 45%) across all periods. Students >14 years had lower odds of adequate sleep than those ≤14 years, while sex and race were not significant. 49.3% of students met PA recommendations (51.4% pre-COVID, 47.9% COVID, 48.4% post-COVID). PA was associated with 37.9% higher odds of adequate sleep, strongest during COVID (aOR=1.656; 95% CI: 1.363–2.012) compared to pre-COVID (aOR=1.316; 95% CI: 1.031–1.681) and post-COVID (aOR=1.236; 95% CI: 1.010–1.512). Conclusion: Most high school students did not get enough sleep, with only about 20% reaching 8 hours per night. About half met physical activity recommendations, and males were more likely than females to sleep enough. Older students were less likely to get adequate sleep, and being physically active increased the chances of sleeping enough, especially during COVID.

Canada

Translating iBelongTeens (TiBT): Co-Creating Physical Activity-Focused Micro-Interventions for Adolescents with Obesity in Clinical Care

AUTHORS

Burke, S.[1], Gill, B.[2], Morales, A.[2], Macias, M.[3], Irwin, J.D.[2], Tucker, T.[2], Pearson, E.S.[4], Ybarra, M.[3]

AFFILIATIONS

[1]*Western University*

[2]*Western University, London, Ontario, Canada*

[3]*London Health Sciences Centre, London, Ontario, Canada*

[4]*Lakehead University, Thunder Bay, Ontario, Canada*

Background: Adolescents with obesity experience increased weight-based stigma and discrimination that can intensify social exclusion and undermine wellbeing. Although physical activity (PA) can promote physical and psychosocial health, many adolescents with obesity describe PA settings as judgmental, unsafe, and/or unappealing. To further understand these issues, our team is currently conducting the iBelongTeens study to examine how adolescents with obesity perceive belonging across various contexts, including in PA environments and healthcare settings. Purpose: Informed by emerging insights from iBelongTeens, the follow-up "Translating iBelongTeens" (TiBT) study was designed to: (1) identify PA-related barriers, facilitators, and belonging needs reported by adolescents with obesity; and (2) co-create brief, scalable PA-focused micro-interventions that can be integrated within a clinical obesity care setting. Methods: Phase 1 will consist of a secondary synthesis of qualitative data generated from adolescents with obesity (n = 10-20) in the iBelongTeens study. This will involve identifying actionable PA- and belonging-related challenges, mapping potential clinical delivery "touchpoints", and specifying preliminary design considerations for the micro-interventions. Phase 2 will involve the co-creation of 2-4 brief PA-focused micro-intervention prototypes with clinicians and researchers (n = 6-8) using a facilitated design session. Qualitative data will be analyzed via thematic analysis, and team assessments related to micro-intervention feasibility and acceptability (gathered via surveys) will be summarized descriptively. Results: Qualitative data collection is imminent and will be used to inform the development of micro-interventions. It is anticipated that adolescents with obesity will report PA experiences influenced by belonging and stigma, yielding evidence to guide the design of feasible PA-focused micro-interventions for clinical care. Conclusions & Practical Implications: TiBT will support the development of clinic-ready approaches targeting belonging and PA and will provide the foundation for pilot testing these micro-interventions within adolescent obesity care settings. Funding: Western University Living Lab Demonstration Grant (Faculty of Health Sciences, Western University).

United States

Understanding community-level pedestrian safety concerns in Hawai‘i: Analysis of qualitative responses in statewide survey

AUTHORS

Keliikoa, L.B.[1], Saiki, K.[1], Yanagi, T.[1], Matsunaga, M.[1], McGurk, M.[1]

AFFILIATIONS

[1]*University of Hawaii at Manoa*

Understanding perceptions and attitudes about pedestrian safety is needed to promote walking as a population health strategy. This study aimed to understand pedestrian safety issues at both the state and county levels by engaging Hawai‘i adults participating in an online survey panel (n=1,462). The online survey included two open-ended questions asking about the most important community issue related to pedestrian safety and the most important community changes needed to make it safer to walk. Following a team-based approach to iteratively develop a coding framework, we established interrater reliability and coded all survey responses. Descriptive analysis was conducted to examine state and county level priorities. Overall, the top three pedestrian safety concerns were related to driver behavior (38.3%), lack of sidewalks (20.9%), and pedestrian behavior (18.1%). Differences by county were found for multiple concerns, including lack of sidewalks, fear of crime, lighting, e-bikes, and both driver and pedestrian behavior. Loose dogs, while rarely mentioned as a safety concern, were mostly the concern of one rural county. Although driver and pedestrian behavior were top safety concerns, survey respondents did not point to changing individual-level behavior as the primary solution. Rather, survey respondents identified built environment solutions as the most important to improve pedestrian safety. The top needed changes were improving intersections and crosswalks to make it safer to cross the street (33.9%), creating sidewalks and safe walking paths (27.5%), and improving lighting to increase pedestrian visibility at night (24.8%). Improving intersections/crosswalks was the top priority for the two more urban counties and sidewalks was the top priority for the two more rural counties. Altogether, these findings can be used to prioritize pedestrian safety improvements and address specific resident concerns at the county level. In addition, the qualitative nature of the survey responses yielded interesting and informative perceptions and attitudes around pedestrian safety.

Brazil

Users' Satisfaction Levels With a National Program for Health Promotion

AUTHORS

Lopes dos Santos, D.[1], Moreira de Oliveira, A.[1], Scherer, N.[1], Flores Battistella, L.[1]

AFFILIATIONS

[1]*Federal University of Santa Maria*

Background: In Brazil, there is a set of programs, promoted by the Federal Government and the Unified Health System, aimed at promoting health. Among the programs that directly promote physical activity is the Academia da Saúde (PAS), which has centers throughout the country. It is considered the largest community-based health promotion program ever implemented in Brazil for the practice of physical activities during leisure time. Purpose: To analyze the satisfaction levels of PAS users in a southern state of the country. Methods: The sample included 142 users from nine municipalities of three Regional Development Councils of the state of Rio Grande do Sul. To determine the level of satisfaction with the PAS, 26 questions were systematized regarding the quality of services provided at the Center. The responses were on a scalar type, where 1 corresponds to "totally dissatisfied" and 5 to "totally satisfied". A descriptive analysis, with data means, standard deviations and percentages was performed. Results: High percentages of satisfaction regarding the overall structure of the centers (51.42% for attention aroused/attractiveness, 51.97% for visual appeal of the facilities, 54.26% for the conservation of the facilities, 55.73% for identification elements, 56.88% for the usefulness of the materials and 63.10% for the understanding of these) were observed, with the lowest satisfaction rate (46.15%) for the modernity of the facilities. User satisfaction with the program's operation was also high, with 82.57% total approval for the offered schedules and 83.84% for overall satisfaction with the PAS. Conclusion: The level of user satisfaction with the PAS is high, highlighting the importance of this public policy in Brazil. Implications for Policy and Practice: It can be inferred that the PAS is fulfilling its role in society, although constant evaluation is necessary. In middle-waged countries like Brazil, these policies are very much needed.

Funding: not applicable

United States

Using digital technology to assess youth physical activity: Challenges and recommendations.

AUTHORS

Schneider, M.[1], Woodworth, A.[1], McVicar, J.[2], Thompson, H.R.[3], Lander, N.[4], Maddison, R.[4], Rawstorn, J.[4], Salmon, J.[4]

AFFILIATIONS

[1]*University of California, Irvine*
[2]*Monash University*
[3]*University of California, Berkeley*
[4]*Deakin University*

Background: On a global scale, most children and adolescents fail to engage in a level of physical activity (PA) generally acknowledged to be critical for achieving and maintaining good health. Comprehensive monitoring of PA engagement among youth holds promise for identifying effective interventions for increasing activity and directing resources where they will be most impactful. Digital technology offers a tool for obtaining surveillance data on youth PA. Purpose: To summarize the lessons learned about alternative digital technology tools for monitoring youth PA. Methods: A scoping review of the literature from 2014-2025 was conducted to identify feasibility and/or pilot studies investigating the challenges and benefits of utilizing wearable monitors to assess PA participation among youth. A qualitative analysis of the lessons learned extracted themes and recommendations. Results: 25 publications were identified that reported on feasibility studies using a wearable monitor to assess youth PA. The following themes emerged from the data: positive features of wearable devices; data reliability/validity/accuracy; data issues; data collection issues; recommendations. Conclusions: Wearable pedometers are a reliable, cost-effective tool for assessing overall youth activity levels. Advantages include the intuitive meaning of steps-per-day as a metric of activity and ease of data analysis. Accelerometers require more sophisticated techniques of data analysis, are more expensive, and yield metrics of activity that may be less meaningful to non-scientists (e.g., minutes of moderate-to-vigorous activity; MVPA). However, accelerometers also yield time-stamped data, which enables fine-grained analyses useful for generating recommendations for intervention. Wearable devices in general are acceptable to youth and may also motivate increased activity. Implications for Policy and Practice: On a public-health scale, pedometers are a cost-effective and reliable tool to monitor patterns of youth PA. When resources are available, accelerometers may be preferable, especially if the goal is to carry out research that relates to the timing of PA participation.

POSTERS

8 Oct | Poster Session Day 3

Mexico

Association of physical activity, sedentary behavior, and sleep with the prevalence of diabetes, and estimation

AUTHORS

Macías, N.[1], Monterrubio, E.[1], Campos-Nonato, I.[1], Jauregui, A.[1], Medina-García, C.[2], Aguilar-Salinas, C.[3], González-Villalpando, C.[1], Ramírez-Villalobos, M.[4], Alcalde-Rabanal, J.[1]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*
[2]*Instituto Nacional de Salus Pública*
[3]*Instituto Nacional de Ciencias Médicas y Nutricion*
[4]*Insituto Nacional de Salud Pública*

Introduction. Type 2 diabetes (T2D) is rising in Mexico; healthy movement behaviors (MB) as physical activity (PA), sedentary behavior (SB) and sleeping hours (SH) could prevent cases and reduce health-care costs. Objective. To describe the association between PA, SB, SH, and type 2 diabetes (T2D) prevalence, to estimate the number of preventable cases and avoidable care costs if there were compliance with MB recommendations in adults. Methods. We evaluated the last 24-hour PA, SB data and SH between 9,619 adults aged 20-69 years, and risk factors associated with T2D. We calculated the attributable fraction of preventable cases and the care costs that could be avoided if PA, SB, and sleeping recommendations were achieved. Results. If adults aged 20-69 years were less sedentary, the prevalence of T2D could be reduced (26.2% in men and 24.0% in women). On the other hand, if adults engaged in at least 150 minutes of moderate/vigorous physical activity, the prevalence of T2D would decrease by 2.8% in men and 3.6% in women. Finally, if adults slept 7-9 hours, 125,892 cases of T2D in men and 159,441 cases in women would be prevented. Considering the synergistic effect of these three MB, if the Mexican adult population complied with the three recommendations, more than 2.5 million cases of T2D and approximately $2.724 billion in health-care costs could be prevented. Conclusions. Meeting PA, SB, and sleeping recommendations is associated with lower prevalence and care costs for T2D. Programs that promote adherence to the MB recommendations are needed.

Mexico

Cambios Físicos y Emocionales en Participantes en un Taller de Caminata para Empleados Universitarios.

AUTHORS

PLIEGO RAYAS, A.S.[1], Celis Rivera, R.[2]

AFFILIATIONS

[1]*Instituto Tecnológico y de Estudios Superiores de Occidente*

[2]*Western Technological Institut*

La actividad física regular puede producir cambios tanto a nivel físico como a nivel emocional. La recomendación internacional de actividad física para la salud establece que todo adulto debería acumular por lo menos 150 minutos a la semana de actividad física de intensidad moderada (ejemplificada por la caminata vigorosa), ya sea en forma continua o acumulada. Una de las barreras más frecuentemente mencionadas para no realizar actividad física es el tiempo para llevarla a cabo. Una alternativa para solucionar este inconveniente, puede ser la actividad física en el sitio de trabajo. Objetivo del presente estudio es presentar los cambios en parámetros físicos y en el estado de ánimo de 11 participantes en un taller de caminata, llevado a cabo 2 veces por semana, en sesiones de 45 minutos cada uno de esos días, durante 5 semanas. Material y métodos: El grupo de experimentación constó de 11 participantes (10 mujeres y 1 hombre), entre 30 y 56 años, empleados del Instituto Tecnológico y de Estudios Superiores de Occidente en Guadalajara, México. Resultados: Se presentaron cambios significativos (p=0.5) en el tiempo en la prueba de 1 milla (1609 metros) de caminata, en la disminución de la circunferencia de la cintura y en el estado de ánimo. Palabras clave: Actividad física regular, caminata, beneficios en salud.

Cross-cultural adaptation of the Child Gender Socialization Scale for Brazil

AUTHORS

Camporeze, R.[1], Ricardo, L.[2], Silveira, M.I.[3], Hino, A.[3], Ramos, B.[3], Orsi, J.[4], Wendt, A.[3]

AFFILIATIONS

[1]*Pontifícia Universidade Católica*

[2]*MRC Epidemiology, University of Cambridge, Cambridge, United Kingdom.*

[3]*Research Group on Physical Activity and Quality of Life (GPAQ); Pontifical Catholic University of Paraná (PUCPR), Brazil*

[4]*Pontifical Catholic University of Paraná (PUCPR), Brazil*

Background: Gender socialization is a multidimensional process through which parental figures transmit cultural norms and values associated with gender roles, influencing the behaviors and opportunities of children from early childhood. In the Brazilian context, there is a recognized lack of validated instruments to systematically assess how these parental attitudes impact gender-stereotyped activities. Purpose: The study aims to translate, cross-culturally adapt, and test the reproducibility of the Child Gender Socialization Scale (CGSS) for use in Brazil. Methods: The methodological process includes translation, back-translation, and evaluation by a committee of ten experts to ensure semantic, conceptual, idiomatic, and cultural equivalence. Content validity is analyzed using the Content Validity Index (CVI). Reproducibility will be tested via the test-retest method with 75 caregivers of children aged 7 to 12 years, utilizing the Intraclass Correlation Coefficient (ICC) and Cronbach's alpha. Results: Preliminary results demonstrate a high level of agreement among experts. Specifically, 7 items presented CVI values between 0.60 and 0.70. The item "Playing with G.I. Joes" obtained the lowest index (CVI = 0.60) due to low relevance to the Brazilian sociocultural context, while the remaining 21 items presented CVI scores between 0.8 and 1.0. The final version is expected to demonstrate temporal stability and moderate to excellent reproducibility (ICC ≥ 0.7). Conclusions: The Brazilian version of the CGSS will provide a solid psychometric tool to identify traditional or egalitarian parenting practices, enabling comparison with international scientific evidence. Implications for Policy and Practice: The validated instrument will offer subsidies for the planning of public policies and educational or health interventions aimed at promoting gender equity and the integral development of children. Funding: Supported by CNPq/MCTI/FNDCT Nº 22/2024 - Knowledge Brazil Program - Support for Network Projects with Brazilian Researchers Abroad (444340/2024-6); Supported by CAPES scholarship, Brazil, for graduate studies.

Design and Implementation Protocol of an Intradialytic Exercise Program for Public Hospitals in Jalisco

AUTHORS

García Báez, R.D.C.[1]

AFFILIATIONS

[1]*Universidad de Guadalajara*

Background: Chronic Kidney Disease (CKD) is a critical public health issue in Jalisco, Mexico, disproportionately affecting low-income populations. Despite evidence-based benefits of intradialytic exercise, implementation in public hospitals is hindered by staffing shortages, knowledge gaps in exercise prescription, and budget constraints. This project aims to bridge the equity gap by implementing a tailored exercise program within the operational limits of a resource-constrained public hospital. Program Delivery or Policy Components: The design emphasizes sustainability and practice-based evidence through four pillars: Protocol Design: Evidence-based guidelines for safe intradialytic exercise prescription. Resource Optimization: Use of low-cost equipment (manual cycle ergometers) to ensure financial sustainability without expensive technology. Workflow Integration: Nursing-supervised sessions integrated into routine hemodialysis to avoid increasing staff burden. Inclusivity: Broad participation criteria designed for patients with varying frailty levels, ensuring the program is accessible to the entire public health population regardless of their physical baseline. Evaluation and Impact: As the program is in its launch phase, evaluation focuses on: Feasibility and Acceptability: Using the Dialysis Patient-perceived Exercise Benefits and Barriers Scale (DPEBBS) to develop specific adherence strategies based on patient-reported data. Clinical Monitoring: Assessing physical capacity (Short Physical Performance Battery) and quality of life (KDQOL-36). Projected Economic Impact: Estimating cost-reductions in hospitalizations and blood pressure medication management. Initial DPEBBS results helped tailor the delivery to overcome perceived motivational barriers. Conclusions: This protocol demonstrates that high-quality physical activity interventions are achievable in resource-limited settings. It provides a framework for reducing health inequities and establishing comprehensive renal care as a standard policy in the public sector. Practical implications: This model serves as a scalable roadmap for public hospitals in developing regions. It highlights that implementation success depends on adapting protocols to existing infrastructure rather than relying on expensive technological investments.
Funding: None.



Mexico

Digital educational intervention on physical activity and body composition in women with suspected cancer

AUTHORS

Alvarez, M.T.[1], Alarcón-Rojas, C.A.[2], López-Zavaleta, K.C.[3], Ramírez Colina, Z.[4], Martínez Leal, I.A.[5], Guzmán García, R.E.[6]

AFFILIATIONS

[1]*Veracruz University*

[2]*Universidad Veracruzana, Facultad de Bioanálisis*

[3]*Universidad Veracruzana, Facultad de Nutrición*

[4]*Universidad Veracruzana, Dirección de Actividades Deportivas*

[5]*Hospital de Cardiologia UMAE No. 34 "Dr Alfonso Treviño Treviño" CMNN, del Instituto Mexicano del Seguro SociaL. Monterrey, Nuevo León.*

[6]*Centro de Alta especialidad, Centro de Evaluación Diagnóstica de Cáncer de Mama, Xalapa Veracruz, México*

Background: Excess body weight and physical inactivity are associated with increased risk and poorer outcomes in women with breast cancer. Digital educational interventions represent an accessible strategy for promoting healthy lifestyles at an early stage. Objective: To evaluate the effect of a WhatsApp-mediated digital educational intervention on physical activity, diet, and body composition in women with suspected breast cancer and overweight. Methods: An experimental study was conducted with random allocation to an experimental and a control group. The intervention included an initial workshop and the delivery of motivational messages and audiovisual materials over 16 weeks. Physical activity (MET- min/week), dietary intake, and body composition were assessed before and after the intervention. Results: The experimental group showed a significantly greater reduction in body fat percentage and total body fat, as well as an increase in body water percentage and walking compared with the control group ($p < 0.05$). No significant changes were observed in body mass index or diet. The intervention demonstrated good to excellent usability. Conclusions: The digital educational intervention was effective in improving physical activity and specific body composition parameters. It supports the use of low-cost digital strategies to promote physical activity in women with suspected breast cancer.



Colombia

e-health intervention based on physical activity to reduce fatigue in post-COVID-19 adults

AUTHORS

Ramos-Caballero, D.M.[1], Forero-Nieto, S.[1], Vargas-Pinilla, O.C.[1], García-Laguna, G.[1], Trompretero-González, A.[1], Tordecilla, M.A.[2], Ramos-Caballero, D.M.[1], Camargo, D.[3], Puentes, I.[3], Mancera-Soto, E.M.[3]

AFFILIATIONS

[1]*Universidad del Rosario*
[2]*Universidad de Rosario*
[3]*Universidad Nacional de Colombia*

Fatigue is one of the most prevalent sequelae after COVID-19, affecting both physical and mental health. Evidence supports the use of physical activity and functional exercises as a strategy to reduce fatigue symptoms through digital interventions, improving accessibility. The hypothesis is proposed that an self-managed e-health strategy, based on recommendations and exercises may help to reduce fatigue in adults. A web application was developed to assess fatigue levels in adults who had COVID-19 or related symptoms, using the Chalder Fatigue Scale before and after a 7-week e-health intervention. 145 users were evaluated in the pre-intervention phase, and 99 users completed the post-intervention assessment. Participants were classified into three levels based on fatigue severity: severe, moderate, and mild.The intervention consisted of sending messages via WhatsApp three times per week, including infographics and guided exercise videos. Before the intervention, participants experienced moderate to severe fatigue. After the intervention, fatigue levels significantly decreased, with post-intervention scores indicating mild or no fatigue. The paired Wilcoxon test showed a statistically significant improvement in the perception of physical fatigue, with effect sizes ranging from moderate to large. Significant reductions were observed in symptoms such as exhaustion, need for more rest ($p < 0.001$, ES=0.637), reduced muscle strength ($p < 0.001$, ES=0.786), and weakness ($p < 0.001$, ES=0.667). Regarding cognitive fatigue, significant improvements were also observed, although with smaller effect sizes compared to physical fatigue. Reductions were found in symptoms such as drowsiness ($p < 0.001$, ES=0.531), difficulty concentrating ($p < 0.001$, ES=0.535), speech lapses ($p < 0.001$, ES=0.453) and difficulty finding the right word ($p < 0.005$, ES=0.467). The intervention had a clinically relevant impact on reducing both physical and cognitive fatigue, with a greater effect on fatigue. Findings suggest that an e-health strategy based on guided physical activities and counseling could be a viable option for managing post-COVID fatigue and its sequeales



Fat-free mass index, isometric strength, body composition and arterial pressure in Mexican College Students

AUTHORS

Manjarrez-Montes-de-Oca, R.[1], Silva-Rosas, G.C.[2], Pineda López, L.A.[2], Tlatempa-Sotelo, P.[3], Serrano-Plata, M.D.J.[3]

AFFILIATIONS

[1]*Universidad Autónoma del Estado de México*

[2]*Licenciatura en Cultura Física y Deporte. Universidad Autónoma del Estado de México.*

[3]*Laboratorio de Cultura Física y Deporte. Universidad Autónoma del Estado de México.*

Actually, body mass index (BMI) has lost importance as direct indicator of physical performance because it using total body mass without distinguishing between body fat mass and body fat-free mass. Therefore, it has been necessary to propose other indicators as fat-free mass index (FFMI). FFMI is a height-adjusted assessment of fat-free mass; recently, it has been proposed as an alternative body composition metric to focus on sport performance. The aim of this study was to evaluate use of FFMI has physical fitness and health indicator in male college students and its correlation with isometric strength, body composition and arterial pressure. 150 male college students were recruited from the Autonomous University of Mexico State. All subjects were medically healthy and physically active; they were fully informed of all procedures and signed a consent form prior to the study. We determined: Height; total body mass (BM), body fat percentage (BF%), fat mass (FM) and fat-free mass (FFM) by BIA; (back, leg, and both right and left handgrip isometric strength, total strength; and systolic arterial pressure (SAP) with an automatized sphygmomanometer. Additionally, both BMI and FFMI were calculated and categorized. Kolmogorov-Smirnov normality test was performed to ensure normality in all variables. Bivariate Pearson's correlations were calculated for both BMI and FFMI and the other variables. One hundred and twenty-seven subjects (20.9±1.7yr; 1.69±0.04m, 68.9±9.2kg) were analyzed, finally. There were found statistically significant ($p<.005$) correlations for BMI and SAP($r=.234$); left-handgrip($r=.203$), leg($r=.243$) and back($r=.187$), and total($r=.238$) strength; BM($r=.912$), BF%($r=.818$), FM($r=.891$), and FFM($r=.749$). Also, for FFMI and SAP($r=.157$); left handgrip($r=.215$), both leg($r=.300$) and back($r=.241$), and tota ($r=.291$) strength; BM($r=.826$) BF%($r=.511$), FM($r=.628$), and FFM($r=.828$). Our results suggest that BMI is more related to arterial pressure, FM, BF%; whereas FFMI with isometric strength and FFM. FFMI could be an interesting new indicator of physical fitness and health.

Hemodynamic Responses to Moderate and Vigorous Intensity Resistance Exercises in Sedentary and Active Adults

AUTHORS

Jaime, S.[1], Dobbs, W.[2]

AFFILIATIONS

[1]*Oregon State University*
[2]*University of Wisconsin-La Crosse*

Purpose: Blood pressure and heart rate responses are crucial indicators of disease and predictors of cardiovascular complications. While several studies have noted increased pressures during resistance exercise, limited research explores how varying intensities and exercise modalities acutely affect these responses. Additionally, there is a scarcity of data comparing sedentary and recreationally active adults, or potential sex-differences. This study aimed to assess the acute impact of different intensities during leg press and squat resistance exercises on blood pressure and heart rate responses in sedentary and active men and women. Methods: Twelve sedentary (n=6) and recreationally active (n=6) men (n=8) and women (n=9) participated in six trials, including two sessions to determine one repetition maximum (1RM) for squat and leg press. The four randomized trials involved performing 15 reps at 60% 1RM and 8 reps at 80% on both the leg press at moderate (LPM) and high (LPH) intensities, and back squats at moderate (SqM) and high (SqH) intensity. Systolic (SBP), diastolic (DBP), mean arterial (MAP), and pulse pressure (PP) and heart rate (HR) were measured before and after each exercise session, with additional measurements between sets during the recovery period. A two-way analysis of variance with repeated measures planned contrasts was employed to identify differences within and between interventions at baseline, between sets, and post-exercise timepoints. Results: No significant baseline differences in pressures were observed. Moderate intensity elicited a higher aSBP response compared to high intensity, particularly in the squat exercise, irrespective of exercise volume. Significantly different responses were noted in the sedentary population between LPM/SqM and LPH/SqH ($P<0.05$), notably in the sedentary men. Conclusion: Our data indicates that high-intensity, low-volume resistance exercise results in an augmented pressor response compared to moderate intensity, high-volume resistance exercise, particularly in the squat exercise and in sedentary men.

Implementation Fidelity in a Community Exercise is Medicine Research–Practice Partnership

AUTHORS

Estabrooks, P.[1], Norton, K.[1], Stark, A.[1], Vance, D.[1], Huerta, A.[1], Maxfield, E.[1], Thompson, T.[1], Larkin, E.[1], Locke, A.[1], Hernandez, A.[1]

AFFILIATIONS

[1]*University of Utah*

Background: A co-designed Exercise is Medicine (EIM) strategy delivered through an integrated research–practice partnership previously demonstrated improved physical activity and cardiometabolic outcomes in an underserved community. However, whether high-quality delivery can be sustained across successive cohorts led by different implementers remains unknown. Purpose: To evaluate implementation fidelity and potential mechanisms supporting consistent delivery of a bundled, community-embedded group-dynamics-based and behavior change intervention across three cohorts led by different instructors and serving predominantly Latina/o and low-income adults. Methods: Guided by RE-AIM, we implemented a bundled EIM pathway within a mobile health unit serving low-income community members and linked referrals to a co-located, group-dynamics–based physical activity program. Implementation strategies included cross-sector co-design, structured training of community health workers and student instructors, defined facilitation roles, standardized observation checklists, and iterative audit and feedback across three cohorts (35 exercise sessions). Fidelity was assessed across leadership/facilitation, communication/structure, group dynamics, self-regulation, and overall domains. Scores were averaged across raters (ICC[2,2]=0.86) and analyzed using linear mixed models. Qualitative observer notes were integrated concurrently. Results: Overall fidelity was high (91%). Communication/Structure (98%) and Leadership/Facilitation (95%) were consistently strong. Group Dynamics averaged 88% and improved significantly across sessions ($\beta \approx +0.02$ per session, $p=.047$), indicating increasing proficiency in cohesion-building. Self-Regulation demonstrated lower fidelity (82%) and greater variability. Qualitative findings converged with quantitative patterns. Instructor enthusiasm, structured roles, and environmental configuration supported high implementation quality, while inconsistent goal review and limited time protection explained variability in behavioral self-regulation components. Conclusions: A bundled, community-embedded EIM strategy achieved high fidelity in an underserved population but also experienced domain-specific vulnerabilities and demonstrated adaptive improvement. Implications for Policy and Practice: Embedding EIM within trusted community assets using co-design, structured training, and audit and feedback can support high-quality implementation. Strengthening behavioral self-regulation components may enhance sustainability and access for all in scale-up efforts.

Implementing a Scalable Operational Model for Physical Activity Promotion in Brazilian Primary Health Care

AUTHORS

Paiva-Neto, T.[1], Rosane Bertoldo Benedetti, T.[2], de Almeida Siqueira Junior, J.[2], Ricardo Rech, C.[2], Schwingel, A.[1]

AFFILIATIONS

[1]*University of Illinois Urbana-Champaign*
[2]*Universidade Federal de Santa Catarina*

Background: Translating evidence-based physical activity (PA) strategies into routine primary health care (PHC) remains a major implementation challenge, particularly in low- and middle-income countries (LMICs) with decentralized health systems. In Brazil, despite national policies supporting PA promotion within the Unified Health System, implementation remains heterogeneous and strongly influenced by local context. Purpose: To evaluate the implementation of an operational model designed to support the adoption, fidelity, and sustainment of evidence-based PA promotion strategies across diverse Brazilian PHC settings. Methods: A mixed-methods implementation study was conducted across nine PA initiatives representing all five Brazilian macro-regions. Over eight months, an operational implementation model combined i-PARIHS and RE-AIM frameworks, PDSA cycles, 5W2H planning, regional facilitation teams, implementation workshops, and monitoring visits. Outcomes included pre- and post-implementation successful-practice scores derived from Item Response Theory analyses, fidelity measures, and qualitative analyses of barriers and facilitators. Results: All nine initiatives improved successful-practice scores, with mean scores increasing from 24.9 to 28.9 (+18.1%). Improvements ranged from +4.7% to +42.8%, with the largest gains observed among initiatives with the lowest baseline scores. Implementation strengthened work processes across all eight evidence-based PA strategies, particularly community outreach and dropout monitoring. Partnerships with Community Health Workers emerged as key facilitators. In contrast, management instability, workforce turnover, competing priorities, and socioeconomic constraints were the principal barriers. Fidelity varied across sites but remained feasible under heterogeneous real-world conditions. Conclusions: A structured operational implementation model effectively supported the delivery of evidence-based PA promotion strategies across diverse PHC contexts, demonstrating adaptability and feasibility within a large public health system. Implications for Policy and Practice: This operational model offers a scalable and transferable approach for strengthening evidence-based PA promotion in resource-constrained PHC systems. The findings provide practical guidance for policymakers and implementers seeking to improve implementation quality, scale-up, and long-term sustainability in Brazil and other LMICs.



Colombia

Interrupting sedentary behavior and its effects on cardiovascular risk factors in University Students

AUTHORS

Tordecilla Sanders, M.A.[1], García-Laguna, G.[2], Hernández-Lozano, S.[2], WELLFIT, S.[2]

AFFILIATIONS

[1]*Universidad del Rosario*

[2]*Universidad del Rosario, School of Medicine and Health Sciences, Rehabilitation Science Research Group, Center for the Study of Physical Activity Measurement (CEMA), Semillero WELLFIT, Bogotá, Colombia.*

Background: Cardiovascular diseases are closely associated with health-related and behavioral factors identified by the American Heart Association (AHA), including physical activity (PA) levels and sedentary time (ST), which influence cardiometabolic risk markers (CRF) such as lipid and glucose profiles, blood pressure, and anthropometric indicators. Purpose: To determine changes in CRF following the implementation of strategies to interrupt ST in university students. Methods: Quantitative, quasi-experimental study in 56 physiotherapy students (64.28% women) aged over 18 from Universidad del Rosario (UR). Lifestyle, ST, and PA were assessed using the FANTASTIC, the Sedentary Behaviour (SBQ), and the International Physical Activity (IPAQ) questionnaires, respectively. Heart rate variability (HRV), Pulse wave velocity (PWV), Mean arterial pressure (MAP), Total cholesterol (TC), Triglycerides (TG), and glucose (GL) levels; waist (WC) and neck (NC) circumferences were measured pre-post intervention. Participants completed an eight-week PA breaks intervention consisting of 5-minute classroom-based sessions performed three times per day, three days per week. Pre-post differences were analyzed using the Wilcoxon signed-rank or paired t-test, and effect sizes were calculated using Cohen´s d Hedge correction. Statistical significance was set at p-value <0.05. Results: Baseline values were within healthy ranges. Significant changes were observed in GL (mean change:−7.39mg/dL; 95%CI:−9.80 to−4.98; p< 0.001; d=−0.81, 95%CI:−1.11 to−0.51) and WC (mean change:−1.10cm; 95%CI: −2.15 to−0.05; p=0.04; d=−0.28, 95%CI:−0.54 to−0.01). Trends toward reductions were also observed in ST on weekdays and weekends, TC, MAP, and PWV. Conclusion: Implementing PA breaks may reduce ST and promote favorable trends in CRF among young adults. However, further controlled interventional studies are needed to establish causal relationships. Practical implications: These findings support the integration of short PA breaks into educational and workplace settings as a feasible strategy to reduce ST and promote cardiometabolic health in young adults. Founding Information: This project was funded by the 2022 Research Seedbed call of UR.



Colombia

Introducing the PABC-PH Framework: Physical Activity, Perceived Barriers, and Population Context for Public Health Action

AUTHORS

Guzmán Caicedo, M.U.[1]

AFFILIATIONS

[1]*Universidad del Rosario, Bogotá.*

Title: Introducing the PABC-PH Framework: Physical Activity, Perceived Barriers, and Population Context for Public Health Action Background: Physical activity surveillance has improved the estimation of inactivity prevalence and population trends. However, current systems mainly describe how active populations are, providing limited information about why these patterns occur or how findings can guide public health action. Integrating behavioral outcomes with perceived barriers and contextual factors may strengthen the usefulness of surveillance for decision-making. Objective: To present the PABC-PH Framework, an action-oriented methodological approach that integrates physical activity behavior, perceived barriers, and population context to generate evidence that supports public health planning and decision-making. Methods: The PABC-PH Framework was developed around three complementary dimensions: physical activity behavior, perceived barriers, and population context. Behavior was assessed using the International Physical Activity Questionnaire–Short Form (IPAQ-SF), perceived barriers using the Barriers to Being Active Quiz (BBAQ), and context through relevant sociodemographic variables. The framework was illustrated using data from a community-based cross-sectional study of adults aged 18–64 years in Colombia. Results: The PABC-PH Framework enabled the integrated interpretation of physical activity levels, perceived barriers, and contextual characteristics. This approach facilitated the identification of priority groups, potentially modifiable barriers, and context-specific opportunities for intervention, providing more actionable evidence than prevalence estimates alone. Conclusions: The PABC-PH Framework extends traditional physical activity surveillance by integrating behavior, perceived barriers, and context into a single action-oriented approach, strengthening the translation of surveillance data into evidence-informed public health interventions and policies. Implications for policy and practice: The PABC-PH Framework provides a practical and scalable approach for improving surveillance systems, supporting resource allocation, intervention prioritization, and the design of locally relevant physical activity policies.

Funding: No external funding was received for this study.



Colombia

Movement Behaviors among Children and Adolescents from Santander de Quilichao, Colombia: Baseline for policy monitoring

AUTHORS

Benavides-Castro, J.K.[1], González, S.A.[2], Aldana Gómez, L.S.[2], Peñarette Peñarete, J.D.[2], Sánchez, S.[2], Moreno López, S.M.[2], Reina Fernández, M.[3], Vargas, S.[3], Ramos, O.A.[4], Sarmiento Dueñas, O.L.[2]

AFFILIATIONS

[1]*School of Medicine - Universidad de los Andes*

[2]*School of Medicine, Universidad de los Andes*

[3]*Local Health Secretariat, Santander de Quilichao Town Hall*

[4]*Human Body Movement and Quality of Life Research Group, Physical Therapy Program, Universidad del Cauca*

Background: Movement behaviors such as physical activity (PA), sedentary behavior (SB), and sleep, are critical determinants of child health. Their balance across the 24-hour cycle is increasingly studied, yet evidence from the Global South remains limited sensitive strategies to improve movement behaviors Purpose: This study aimed to provide a baseline to monitor movement behaviors within the implementation of the Municipal Plan for the Promotion of PA 2022–2032 in Santander de Quilichao, Colombia. Methods: A cross-sectional study was conducted in 12 urban and rural schools, including 1,871 students aged 5–17 years. PA, SB, and sleep were self-reported and evaluated against international guidelines. Prevalence and prevalence ratios were estimated using Poisson regression with robust variance, stratified by age group. Multivariate models incorporate individual, home, environmental, and community factors. Results: Only 10.0% of children and 5.3% of adolescents met all three recommendations simultaneously. For PA, 37.6% of children and 35.2% of adolescents complied. SB guidelines were met by 47.2% of children and 27.9% of adolescents. Sleep recommendations were achieved by 63.3% of children and 45.4% of adolescents. Female sex was negatively associated with PA compliance, while urban residence and participation in school sports were positive correlates. TV and videogames availability in the bedroom were negative correlates of meeting SB guidelines, while daily consumption of fruits and vegetables was a positive correlation. Excessive screen time was linked to lower sleep compliance. Conclusions: The low prevalence of combined compliance highlights the urgent need for integrated, multisectoral interventions. Implications for policy and practice: Findings provide a baseline for evaluating local public policy and support the design of context-sensitive strategies to promote healthy movement behaviors in a diverse and vulnerable municipality of the Global South.

Moving Together/Juntos en Movimiento/Juntos em Movimento Highlight

Colombia

Muévete Bogotá: An evidence-based physical activity program with the potential to reduce inequalities

AUTHORS

Giowanny Morales Gamboa, E.[1], Gonzalez Cifuentes, S.A.[2], Pérez Rubio, K.X.[2], Vivas, A.[3], López Serpa, A.C.[2], Espinosa Vargas, J.C.[2], Dominguez-Sanchez, M.A.[4], Herrera Villarraga, H.[1]

AFFILIATIONS

[1]*IDRD*

[2]*Instituto Distrital de Recreación y Deporte (IDRD)*

[3]*Instituto Distrital de Recreación y Deporte (IDRD), Escuela Colombiana de Rehabilitación (ECR)*

[4]*Instituto Distrital de Recreación y Deporte (IDRD), Universidad Nacional de Colombia (UNAL)*

Background: Women from low middle-income countries face social and cultural barriers that limit their involvement in physical activity (PA). In this context, Muevete Bogota program has a counseling component that addresses the importance of regular PA and its benefits, with a focus on reducing gender inequalities. Program Delivery or Policy Components: Muévete Bogotá is an evidence-based PA promotion program aimed at increasing active living in Bogota. It is led by the District Institute of Recreation and Sports (IDRD) and includes a PA counseling component based on the 5As approach (assess, advise, agree, assist and arrange) to encourage healthy choices by the community. It measures PA levels, sedentary behaviors, stages of behavioral change, PA domains and BMI. Evaluation and impact: In 2025, 2377 program users were assessed as part of the routinary monitoring of the program. PA levels, sedentary behaviors and body composition were analyzed. For the current analysis we focused on the female population which account for 67% of the participants. In terms of behaviors, 63.8% of the women had moderate-high PA levels, while 75.3% spent less than 8 hours sitting. In addition 55.3% of the female participants had overweight. Conclusions: A high percentage of women had moderate-high PA levels and reported less sitting time, suggesting the potential of the program to close gaps in active and healthy living. The high prevalence of overweight highlights the opportunity to strengthen strategies to promote healthy weight maintenance. Practical implications: Muévete Bogotá counseling primarily benefits women, closing participation gaps in PA programs and potentially contributing to reduce gender inequalities. Future actions should focus on promoting healthy weight and creating opportunities to partner with other IDRD programs that lead to behavioral changes. Funding: This research is supported by the IDRD in Bogotá as part of the Muévete Bogotá program.


Colombia

Perceptions of community social sport as a strategy for promoting coexistence in commune 1 of

AUTHORS

Rojas Cano, L.E.[1], Santos, J.F.[2], Caceres Melo, J.S.[3], Diaz Rincon, J.S.[3], Ballesteros Iza, D.A.[3]

AFFILIATIONS

[1]*Universidad de Santander; Universidad de Boyacá*
[2]*Fundación Universitaria María Cano*
[3]*Universidad de Santander*

Background: According to the WHO, violence as a visible problem impacts an entire community, altering its coexistence and social cohesion. In contexts of vulnerability, community-based social sport emerges as a tool that improves mental health, promotes community ties, and contributes to local development. In the case of Bucaramanga (Colombia), specifically in Commune 1, sport has become an opportunity to attract at-risk youth and supports the implementation of strategies that promote conflict resolution and life skills. Therefore, it is crucial to understand its subjective dimensions and practical implications from the perspective of each stakeholder involved. Objective: To analyze the perceptions and experiences attributed to community social sport as a strategy for promoting coexistence in Commune 1 of Bucaramanga, Colombia. Methods: This was a qualitative study with a phenomenological design, involving 49 participants in the community sports program (children, families, coaches, and local managers) selected through purposive sampling. Data were collected through focus groups and semi-structured interviews, and analyzed using thematic content analysis, following criteria described by Bardin. Results: The perceptions and experiences of the participants show community-based social sport as a meeting place that fosters cooperation, inclusion, conflict resolution, and the strengthening of interpersonal relationships. Contributions to personal development, opportunities, learning, health, and well-being were identified, with benefits extending to the community. Conclusions: Social sport is perceived positively in promoting coexistence and social well-being in vulnerable urban contexts, exerting a great influence on the different actors. Implications for policy and practice: A framework is provided for building public policies and intervening in vulnerable communities through community social sport. Funding: There was no external funding.



Colombia

Physical Activity and Cardiovascular Health in Guatemala's Dry Corridor

AUTHORS

Mejía-Grueso, J.[1], Rivera Pinzón, D.C.[2], Urbina Moreno, L.A.[2], García Sierra, A.M.[2], Pinzón Ortiz, J.D.[2], Pinilla, M.J.[2], Ortiz, L.[3], Melgar, M.[3], Ramírez Varela, A.[4]

AFFILIATIONS

[1]*Global Observatory for Physical Activity - GoPA!*

[2]*EpiDriver, Panama City, Panama.*

[3]*Pediatric Infectious Diseases, Centro de Estudios Clínicos Salud Avanzada (CECLISA), Guatemala.*

[4]*Department of Epidemiology, School of Public Health; Department of Pediatrics, McGovern Medical School; Center for Health Promotion and Prevention Research; Institute for Implementation Science, The University of Texas Health Science Center at Houston (UTHealth Houston), Houston, TX, USA.*

Background: Guatemala's Dry Corridor faces chronic drought, food insecurity, and limited health infrastructure. Data on physical activity (PA) and cardiovascular health (CVH) in this climate-vulnerable region are scarce. Purpose: To assess PA scores and cardiovascular health using Life's Essential 8 (LE8) and compare municipalities with high and lower drought exposure in Guatemala's Dry Corridor. Methods: We conducted a cross-sectional study in Huité (high exposure) and Tecpán (lower exposure) using a two-stage probability sample. Surveys and clinical measurements were collected. CVH was assessed using LE8, which generates a 0-100 score as the mean of eight components. PA was assessed using NHANES moderate and vigorous activity items; weekly minutes were calculated and converted to a 0-100 score according to LE8 thresholds (≥150 minutes/week = 100 points). Survey-weighted analyses compared overall LE8 and PA scores between municipalities and examined factors associated with meeting PA guidelines. Results: A total of 1,648 participants were enrolled and 1,072 adults had complete data. Mean adult CVH score was 67.4 (95%CI:66.8-68.0). Scores were lower in Huité than Tecpán (60.3 vs 68.6, $p<0.001$). The largest difference was in PA score (15.1 vs 49.3, $p<0.001$), indicating lower self-reported PA in the high drought setting. Overall, 26.9% (95%CI: 24.3-29.7) of adults met PA guidelines. Prevalence was significantly lower in Huité (19.9%, 95%CI: 16.6-23.6) than Tecpán (33.5%, 95%CI: 29.6-37.6). In adjusted analyses, meeting PA guidelines was more likely among men and higher-income individuals, and less likely among those with depressive symptoms, asthma, moderate food insecurity, and greater social vulnerability. Conclusions: Adults in Huité had lower PA and overall CVH, suggesting environmental vulnerability may constrain movement behaviors and increase cardiovascular risk. Implications for Policy and Practice: Climate-vulnerable regions may face structural barriers to PA and compounded cardiovascular risk. Integrating PA promotion and local health strategies may help reduce emerging inequities. Funding: EpiDriver.



Colombia

Physical Activity and Perceived Barriers Among Adults in Málaga, Colombia: A Cross-Sectional Study

AUTHORS

Guzmán Caicedo, M.U.[1], Ramos Caballero, D.M.[2], Mendoza, D.[2]

AFFILIATIONS

[1]*Universidad del Rosario, Bogotá.*
[2]*Universidad del Rosario*

Title Physical Activity and Perceived Barriers Among Adults in Málaga, Colombia: A Cross-Sectional Study Background Globally, 31.3% of adults were insufficiently active in 2022. Physical inactivity is a major modifiable risk factor for noncommunicable diseases, and participation is shaped by individual, social, and environmental barriers. No population-based studies examining physical activity and perceived barriers were identified in Málaga, limiting evidence-based local interventions. Objective To determine the association between perceived barriers and physical activity levels among adults aged 18–64 years residing in Málaga, Santander, Colombia. Preliminary descriptive results are presented. Methods A cross-sectional study was conducted with 781 adults aged 18–64 years. Physical activity was assessed using the International Physical Activity Questionnaire–Short Form (IPAQ-SF), and perceived barriers using the BBAQ-21. Given the documented risk of overestimating self-reported physical activity with the IPAQ-SF, this preliminary descriptive analysis used only the walking domain. Weekly volume, calculated using 3.3 METs, and frequency were combined, with at least 600 MET-min/week accumulated over five or more days defined as the operational criterion. Frequencies, percentages, means, and standard deviations were calculated. Results Mean age was 35.72 ± 12.39 years; 65.7% were men and 85.9% lived in urban areas. Based on weekly walking volume, 30.3% had a low level, 54.7% a moderate level, and 15.0% a high level. After incorporating frequency, the corresponding proportions were 54.4%, 32.4%, and 13.2%. The highest barrier scores were observed for lack of free time (4.61 ± 2.68), lack of willpower (4.41 ± 2.66), lack of resources (3.67 ± 2.38), and social influence (3.57 ± 2.39). Conclusions After weekly frequency was incorporated, low walking-based physical activity predominated. Lack of free time and willpower had the highest barrier scores. These preliminary findings provide the basis for the subsequent analysis of the association between perceived barriers and physical activity levels.

Physical Activity–Oriented Neurorehabilitation After Stroke

AUTHORS

Montes Monroy, C.A.[1]

AFFILIATIONS

[1]*CRIT*

Background Stroke remains a leading cause of long-term disability worldwide, imposing substantial personal, social, and economic burden. Physical inactivity after stroke contributes to secondary complications, reduced participation, and diminished quality of life. Although rehabilitation and physical activity are central to recovery, structured outpatient programs integrating functional training, aerobic exercise, and self-management education remain inconsistently implemented across middle-income countries. Objective To evaluate the effects of a structured, physical activity–based rehabilitation program on functional mobility, walking capacity, and disability in adults after stroke, and to explore correlations between clinical outcomes, adherence, and baseline functional status. Methods A prospective, quasi-experimental study was conducted in an outpatient neurorehabilitation clinic. Thirty adults with subacute or chronic ischemic or hemorrhagic stroke were enrolled. Participants completed a twelve-week intervention combining moderate-intensity aerobic exercise, task-oriented functional training, balance exercises, progressive strengthening of upper and lower limbs, and education focused on physical activity participation and self-management. Aerobic exercise was prescribed at moderate intensity, progressing according to perceived exertion and functional tolerance. Primary outcomes included functional mobility assessed by the Timed Up and Go test, walking capacity measured using the Six-Minute Walk Test, and disability evaluated with the Modified Rankin Scale. Correlation analyses examined associations between outcome changes and baseline characteristics. Results Following the intervention, participants demonstrated significant improvements in functional mobility, walking capacity, and disability scores. Greater baseline disability was moderately associated with larger functional gains. Higher adherence rates were positively correlated with improvements in walking capacity and functional independence. Time since stroke showed no significant association with outcome magnitude. Conclusion A structured, physical activity–based rehabilitation program produced meaningful improvements in mobility, walking capacity, and disability after stroke. Individualized prescription, early engagement, and adherence appear critical for optimizing recovery. These findings support integrating rehabilitation and physical activity promotion into routine post-stroke care within middle-income health systems and sustainability outcomes.


Mexico

Physical Intervention Program Through Soccer to Improve Physical and Cognitive Capacities in Adolescents in Morelos

AUTHORS

Sotelo Salazar, L.[1], Gomez Miranda, S.[1]

AFFILIATIONS

[1]*Universidad Autónoma del Estado de Morelos*

Background: Adolescence is a developmental stage characterized by high neuromuscular plasticity and the maturation of executive and physical functions. However, sedentary behavior and physical inactivity hinder the optimal development of these capacities. Objective: To quantitatively evaluate the impact of a soccer initiation program on conditional physical capacities and cognitive abilities in 7th- and 8th-grade students in Morelos after a 12-week period consisting of three weekly sessions of 60 minutes each. Methods: This study followed a quasi-experimental, longitudinal pretest–posttest cohort design. Thirty students aged 12–13 years from Colegio Monte Albán were evaluated. The program included activities focused on coordination, agility, endurance, and motor control. Standardized assessments were used: the Stroop Test to measure inhibition, sustained attention, and cognitive flexibility; the Course Navette test, 10 × 5 shuttle run, flexibility test, and standing long jump for physical performance. Results: After administering physical and cognitive tests to 10 girls and 20 boys, Shapiro–Wilk normality tests showed both normal and non-normal distributions. Subsequently, mean comparison tests (Student's t-test) were applied, revealing a statistically significant relationship between physical and cognitive variables. Significant improvements were found in aerobic endurance, strength, speed, inhibition, and selective attention ($p = 0.005$). Conclusions: Soccer serves as an integrative sports tool that supports daily functioning, contributing both to improved academic performance in the classroom and to personal development outside school. Implications for Policy and Practice: Findings support the implementation of structured school-based physical activity programs to promote holistic development and cognitive performance in adolescents. Funding: No external funding was received.



Pilot Implementation of the GAC PAQ App in Rural and Urban Bogotá, Colombia

AUTHORS

Benavides-Castro, J.K.[1], Benavides-Castro, J.K.[2], Sarmiento Dueñas, O.L.[2], Romero Parra, P.F.[2], Espinel Barragán, G.[2], Larouche, R.[3]

AFFILIATIONS

[1]*School of Medicine - Universidad de los Andes*
[2]*School of Medicine, Universidad de los Andes*
[3]*University of Lethbridge*

Background: Accurate and culturally adaptable tools for assessing physical activity (PA) among children are essential for global surveillance and intervention planning. The Global Physical Activity Questionnaire for Children and Adolescents (GAC PAQ) mobile application aims to standardize PA measurement for youth aged 8–17 across diverse international settings. This work presents findings from a pilot study conducted in rural and urban schools in Bogotá, Colombia, focusing on feasibility, comprehensibility, and user experience. Methods: Between January and February 2025, 35 child–caregiver dyads participated in this pilot. The GAC-PAQ app was administered using tablets and included a satisfaction module and open-ended feedback. Qualitative responses and technical issues encountered during administration were systematically documented to inform refinement of the instrument prior to large-scale deployment. Results: Participants reported high levels of satisfaction with the comprehensensibility and structure of the questionnaire. Overall, 69.5% of respondents indicated being satisfied or very satisfied with the questionnaire's comprehensibility, 1.2% reported a neutral opinion, and 29.3% did not provide a response. When excluding missing values, the satisfaction rate increased to 98.3%. Most participants described the instructions, examples, and activity categories as easy to understand. Feedback also identified areas requiring further clarification, particularly distinctions between similar activity types and descriptions of effort levels. Technical issues included offline autosave failures, mismatches between audio and text prompts, and minor orthographic inconsistencies. Children emphasized the usefulness of visual supports and suggested incorporating more familiar examples of activities at school, during transportation, and at home. Caregivers appreciated the app's simplicity but recommended refining terminology for chores and structured activities. Conclusions: The GAC-PAQ app showed strong acceptability and feasibility in Bogotá schools. Feedback highlighted the need to improve linguistic clarity, contextual examples, and technical stability. These refinements were implemented before the ongoing main study assessing the tool's reliability and validity.


Honduras

Sarcopenia, Handgrip Strength, and Physical Activity in Older Adults from a Honduran Community

AUTHORS

Hernández-Santana, A.[1], Maradiaga, A.[1]

AFFILIATIONS

[1]*Universidad Zamorano*

Background: Sarcopenia risk in older adults from rural Central American communities remains understudied, despite growing evidence linking low muscle strength, physical inactivity, and adverse nutritional status in this population. Purpose: To describe sarcopenia risk, handgrip strength, and physical activity level, and their association with nutritional status, in older adults from a rural Honduran community. Methods: Cross-sectional study in 60 community-dwelling adults aged 60 years and older in San Antonio de Oriente, Honduras. Body mass index (BMI) was used to assess nutritional status, sarcopenia risk was screened with SARC-F (score ≥4), handgrip strength was measured with a Jamar dynamometer, and physical activity was assessed with the IPAQ. Normality tests were applied. Group comparisons by sarcopenia risk used Student's t-test or the Mann-Whitney U test, and the chi-square or Fisher's exact test. Results: Overweight and obesity were identified in 31.7% and 25.0% of participants, respectively. Sarcopenia risk affected 35.0% (n=21) of participants overall, with a higher prevalence in women (40.0%, n=18) than in men (20.0%, n=3). Handgrip strength was significantly lower among participants at sarcopenia risk than those without (17.31 vs. 22.21 kg; p=0.012). Weekly physical activity minutes were lower in the at-risk group, though the difference did not reach statistical significance (p=0.081); on average, neither group met WHO physical activity recommendations. Conclusions: Handgrip strength confirmed muscular dysfunction, revealing latent sarcopenic obesity given the high coexistence of overweight/obesity in this population. Implications for Policy and Practice: These findings support incorporating low-cost handgrip dynamometry alongside SARC-F screening in rural primary care settings and prioritizing structured physical activity programs for older adults in under-resourced Central American communities.



Mexico

Sedentary behavior, physical activity, and cardiometabolic risk: a cross-sectional study on postmenopausal Mexican women

AUTHORS

Macías, N.[1], Espinosa-Montero, J.[1], Flores, M.E.[1], Aguilar-Salinas, C.A.[2], Jauregui, A.[3], Salmerón, J.[4], Gallegos-Carrillo, K.[5], Macías, N.[1]

AFFILIATIONS

[1]*Instituto Nacional de Salud Pública*

[2]*Instituto Nacional de Ciencias Médicas y Nutrición*

[3]*Instituto Nacional de Salus Pública*

[4]*Universidad Nacional Autónoma de México*

[5]*Instituto Mexicano del Seguro Social*

Background.Postmenopausal women with overweight or obesity present high cardiometabolic risk, which may be worsened by sedentary behavior (SED) and insufficient physical activity, but the lack of consensus on accelerometer cut-points for SED and light physical activity (LPA) complicates interpretation of these associations. Objective.This study examined how different SED/LPA cut-points relate to adiposity and metabolic biomarkers in Mexican postmenopausal women. Methods.In a secondary cross-sectional analysis of baseline data from a vitamin D supplementation trial, 89 women aged 45–65 years (BMI ≥25 kg/m²) without hormone therapy wore RT3 accelerometers for seven days; SED and LPA were defined using Vanhelst (SED 0–40 counts per minute [CPM], LPA 41–951 CPM) and Freedson (SED 0–100 CPM, LPA 101–951 CPM) thresholds. Total and truncal fat were measured by DXA, and fasting glucose, insulin, HOMA-IR, and leptin were assessed. Linear and logistic regression models, adjusted for age, years since menopause, energy intake, BMI, accelerometer wear time, and time in other intensities, evaluated associations between SED/LPA (minutes and percent of wear time) and cardiometabolic indicators, including interactions by age group. Results. Participants showed high adiposity and insulin resistance, with median BMI 31.9 kg/m² and HOMA-IR 3.92. Using 0–40 CPM, higher SED percentage was positively associated with total and truncal fat, insulin, HOMA-IR, and leptin, whereas LPA was inversely associated with these markers, even at intensities often classified as SED. Similar but attenuated patterns appeared with 0–100 CPM, particularly for adiposity. Dose–response trends across SED tertiles and age interactions suggested greater vulnerability in younger postmenopausal women. Conclusion. Overall, even small reallocations of time from SED to LPA were linked to more favorable cardiometabolic profiles, in postmenopausal women who are in higher risk of cardiovascular events.

Sex differences in integrated movement behaviors among first-year Mexican university students

AUTHORS

Arellano Gómez, L.P.[1], Nuño Anguiano, K.J.[2], Ramos García, C.O.[3], Mendivil Rangel, E.J.[4], Ruiz Valenzuela, R.E.[5], Alcaraz Mejía, M.I.[2]

AFFILIATIONS

[1]*ITESO, Jesuit University of Guadalajara*

[2]*ITESO, Jesuit University of Guadalajara, Mexico*

[3]*Health Science University Center, University of Guadalajara, Mexico*

[4]*Iberoamerican University, Mexico City, Mexico*

[5]*Iberoamerican University, Tijuana, Mexico*

Background: University transition alters movement patterns, but evidence on sex differences in movement behaviors among Latin American students is limited. Purpose: To compare physical activity (PA) and movement behavior compliance between male and female first-year public university students in Mexico. Methods: Cross-sectional data were collected online from census of first-year students aged 17–24.9 years at a Mexican public university. Validated instruments were used (IPAQ, ELCSA, HWISE, GAD-7, CESD-7). PA was categorized as low, moderate, or high; movement behaviors as yes/no compliance. Ordered logistic regression examined sex differences in PA levels. Poisson regression with robust variance estimated adjusted prevalence ratios for compliance with PA, sleep, sedentary behaviour, and combined movement recommendations. Models were adjusted for age, socioeconomic status, BMI, food and water insecurity, sleep quality, and mental health. Results: Among 1,543 participants (55.8% women), women had lower odds of higher PA levels than men ($\beta = -0.67$, $p<0.001$). Predicted probabilities indicated a greater likelihood of low activity (19.5% vs 11.1%) and a lower likelihood of high activity (38.2% vs 54.4%) among women. Women were less likely to meet WHO physical activity recommendations (PR≈0.74, $p<0.001$) and combined movement guidelines (PR≈0.72, $p<0.001$). No significant sex differences were observed for sleep or sedentary behaviour compliance. Severe water insecurity was negatively associated with PA compliance, while higher socioeconomic status was positively associated. Poor sleep quality was associated with lower compliance with sleep and combined recommendations. Conclusions: Sex differences were concentrated in PA rather than sleep or sedentary behaviour, suggesting that disparities in integrated movement profiles are driven by activity intensity and adherence. Implications for Policy and Practice: Efforts to improve movement behaviors in university settings should prioritize removing barriers to PA among young women and support access to opportunities for higher-intensity activity.
Funding: Supported by the University of Guadalajara and the Jesuit University System in Mexico.

Student Retention in Higher Education: The Role of Physical, Cultural, and Leisure Activities in Promoting

AUTHORS

Ferreira da Silva dos Santos, S.[1], Claudino Momesso, T.[1]

AFFILIATIONS

[1]*UNESP*

Introduction The expansion of access to higher education in Brazil, driven by policies such as the Quota Law and the National Student Assistance Policy, has intensified challenges related to student retention and graduation. Socioeconomically vulnerable students often face academic, financial, psychological, and social barriers that increase dropout risk. Physical, sports, cultural, and leisure activities have been highlighted as strategies to enhance well-being, mental health, institutional belonging, and engagement. Nevertheless, limited evidence exists on how these factors interact and how institutional policies can effectively support student persistence. Objectives To analyze the association between physical activity, sports, cultural and leisure practices and student retention at a public university in the state of São Paulo, considering the role of institutional policies and affirmative actions. Methods This is a cross-sectional using a mixed-methods approach. Initially, a survey will be carried out with undergraduate students enrolled in on-campus programs at a university campus, with an estimated sample of 546 participants calculated for a finite population and obtained through cluster sampling. Data will be collected through a structured online questionnaire including sociodemographic, academic, and lifestyle variables. Levels of physical activity, cultural participation, leisure habits, institutional engagement, and perceptions of infrastructure and support will be assessed. Quantitative analysis will include descriptive statistics, association tests, and binary logistic regression to identify factors associated with student retention. The qualitative phase will employ the Group Concept Mapping (GCM) method, involving workshops with brainstorming, statement sorting and rating by participants, non-metric multidimensional scaling, and hierarchical cluster analysis, producing conceptual maps validated through consensus groups. Expected Results The study is expected to identify individual and institutional factors associated with student retention, highlight the role of physical and sociocultural activities in fostering belonging, and generate evidence-based recommendations for integrated university policies on health, culture, and student assistance, contributing to reduced dropout rates and



Brazil

University extension activities: equity and inclusion to promote physical activity and health

AUTHORS

Trapé, Á.[1], Costa, G.P.[2], Oliveira, J.C.S.[3], Ramos, J.F.D.S.[3], Bandeira, R.O.M.[3], Colombari, A.V.[3], Develey, L.D.[3], Carrijo, G.M.L.[3], Silva, A.P.D.[4], Moreira, M.M.[4], Rosa, J.L.[3], Moraes, C.D.[4]

AFFILIATIONS

[1]*University of Sao Paulo*

[2]*Research and Studies Group in Physical Education and Collective Health. School of Physical Education and Sport of Ribeirão Preto, University of São Paulo.*

[3]*Research and Studies Group in Physical Education and Collective Health. School of Physical Education and Sport of Ribeirão Preto, University of São Paulo*

[4]*Study and Research Group on Physical Exercise for Special Health Conditions. School of Physical Education and Sport of Ribeirão Preto, University of São Paulo*

Background University extension is essential for promoting health by connecting the university to the community and integrating teaching, research, and extension. Projects focused on physical activity (PA) enhance access to the university, allowing students to apply their knowledge while promoting equity, inclusion, and community engagement. Purpose To present university extension activities, based on equity and inclusion, to promote the health of the population of Ribeirão Preto, Brazil. Methods This essay outlines actions taken since 2022, including: (I) In-person activities at the University of São Paulo through the Integrated Training Program for Adults; (II) Hybrid health counseling in the Health+ Program; (III) Extramural actions promoting and advising PA on health services and in community spaces such as squares and schools. Results The results correspond to the actions outlined in the methods section: I) The in-person project maintained 110 free places with improvements in health indicators (e.g., Cohen's d≥ 0.5 in strength, agility, and vigorous PA after six months), in addition to the adoption of affirmative action with reserved places for black and mixed people; (II) The Health+ Program had 36 participants in monthly in-person meetings and bi-weekly interactions via mobile app, promoting advances in health care and PA practice; (III) The extramural actions took place monthly in the communities, serving approximately 500 people per year, with high satisfaction, and promoting experiences in the communities for the students. Conclusions The projects combine scientific and popular knowledge to expand free access to healthcare and PA for the population while simultaneously strengthening student leadership. In addition to in-person outreach, these extramural initiatives bring the university directly into communities, broadening its social reach. Implications for Practice Universities can expand equitable access to health promotion by integrating community-based physical activity, hybrid counseling, and affirmative actions into extension programs, strengthening student leadership while addressing local health needs.



Ecuador

What matters in public open spaces for adolescents? Frequency of use and importance of park

AUTHORS

Molina Cando, M.J.[1]

AFFILIATIONS

[1]*UGhent/UCuenca*

Background: Public open spaces (POS) play a critical role in promoting adolescents' physical activity and well-being. However, evidence on which attributes are important for adolescents in POS, particularly in low- and middle-income countries, remains limited. The aim of this study was to associate the importance of specific park attributes with regular POS use. Methodology: A cross-sectional study was conducted among adolescents aged 12–17 years in Cuenca, Ecuador (October 2025–February 2026). An online questionnaire assessed POS visit frequency and the perceived importance of 42 park attributes (characteristics, features, and amenities) using a 7-point Likert scale (1 = not important; 7 = very important). POS use frequency was dichotomized into regular use (>2 times per month) and non-regular use (≤1 time per month). Bivariate analyses were performed with regular park use as the dependent variable. Features and amenities showing statistical significance at $p < 0.01$ were entered into a multivariable logistic regression model. Sex and age were included as confounders. Results: A total of 393 adolescents participated (54.9% girls), with a mean age of 14.4 years (SD = 1.65). Most adolescents reported regular use of POS (73.8%), while 26.2% reported infrequent use (once a month or less). A higher perceived importance of the presence of hills/stairs in POS was positively associated with regular POS use (OR = 1.30; 95% CI: 1.09–1.55; $p = 0.004$). In contrast, perceiving the presence of loose dogs as a relevant concern was negatively associated with regular POS use (OR = 0.86; 95% CI: 0.75–0.98; $p = 0.022$). Other park attributes were not significantly associated with regular POS use. Conclusion: Specific park attributes were significantly associated with adolescents' regular use of POS, underscoring their importance in promoting park engagement among adolescents. The online questionnaire represents a useful tool for identifying relevant park characteristics and features in other settings with comparable socio-urban contexts.

GoPA!

Burkina Faso

Results from Burkina Faso's 2025 GoPE! Country Card

AUTHORS

Ouedraogo, O.[1], Sawadogo, A.[2], Cristão, R.[3], Martins, J.[4]

AFFILIATIONS

[1]*Ecole Normale supérieure*

[2]*Institut des Sciences du Sport et du Développement Humain (ISSDH), Université Joseph Ki- Zerbo, Burkina Faso*

[3]*Faculty of Human Kinetics, University of Lisbon*

[4]*Centro de Estudos em Educação, Faculdade de Motricidade Humana e UIDEF, Instituto de Educação, Universidade de Lisboa, Lisboa, Portugal*

Background: Since the late 1980s, Burkina Faso has considered physical education (PE) as one of the means to achieve the general objectives of education. To this end, it has been integrated into schooling from preschool to high school. Since then, it has always been regarded as a teaching subject, and its content has evolved in line with ongoing educational reforms. The Global Observatory for Physical Education (GoPE!) offers a standardized framework to assess the place of PSE in education systems and its role in public health. Methods: The GoPE! Country Card for Burkina Faso was developed based on indicators adopted by GoPE!, including the presence of official PE programs, the existence of policies mandating PE to be taught and minimum required instruction time, monitoring of policy implementation, and scientific output on school-based interventions. Data was first collected by GoPE! researchers and then validated by local experts. Results: There is no available data on the prevalence of PA estimates among adolescents. The official guidelines relating to PE (1987, 2020, 2022) demonstrate its institutional recognition and the existence of a curriculum. Subsequent complementary regulations have established a regulatory framework. Moreover, no national system monitors the implementation of PE policies. Finally, scientific production on school-based interventions is almost non-existent in Burkina-Faso. Discussion: These results reveal a paradox marked by the existence of regulatory texts and curricula but the absence of monitoring mechanisms. Added to this are limited research capacity and a lack of data on adolescent's' physical activity participation, which restricts the ability to assess the effectiveness of existing policies. Nevertheless, the presence of recent decrees and orientation programs provides a solid foundation for developing a coherent national strategy. Conclusion: To strengthen PE, implementation must be extended to all school levels, along with the establishment of a national monitoring system.

GoPA!

Germany

The GoPA! Country Card as a Catalyst for Physical Activity Policy and Practice in Germany

AUTHORS

Siefken, K.[1], Manz, K.[2]

AFFILIATIONS

[1]*MSH Medical School Hamburg*
[2]*Robert Koch Institute*

Background: The third edition of the Global Observatory for Physical Activity (GoPA!) Country Cards provides an updated overview of physical activity (PA) surveillance, research, and policy across 186 countries. For Germany, the Country Card offers an opportunity to assess national strengths and gaps in PA promotion and to identify pathways for evidence-informed, cross-sectoral policy action. Methods: The 2025 GoPA! Country Card compiles data from validated national and international sources, including the European Health Interview Survey (EHIS-PAQ), national surveillance systems, and policy databases. Indicators capture PA prevalence, gender and socioeconomic disparities, research productivity, and policy implementation. Results: Germany demonstrates strong surveillance systems, regular monitoring, and high research productivity across universities and public health institutes. Despite this evidence base, more than half of the population remain insufficiently active, with persistent gender and socioeconomic disparities. The Country Card also highlights Germany's decentralized governance structure, with responsibilities for PA promotion distributed across federal, state, and municipal levels and spanning sectors such as health, education, sport, transport, and urban planning. Key opportunities include integrating PA indicators into national policy processes, strengthening multisector partnerships, and linking national initiatives to enhance coherence and population-level impact. Discussion: The German Country Card shows both progress and persistent gaps in PA promotion. High-quality surveillance and research provide a strong foundation, but translation into coordinated policy action is hindered by decentralized governance and limited dissemination to key decision-makers. Bridging the policy-to-practice gap requires more systematic communication across sectors and government levels, as well as mechanisms that support intersectoral collaboration. Conclusion: The Germany Country Card should be seen not as an endpoint but as a catalyst for strengthening governance, prioritizing interventions, and reducing inequities in PA participation. When strategically used it can enhance evidence-informed decision-making and support coherent, equitable and sustainable PA promotion at national and local levels.

United States

A Qualitative Study of Multilevel Determinants of Park-Based Physical Activity in Community Settings

AUTHORS

Craig, D.[1], Lee, M.[2], Walker, T.[2], Pfledderer, C.[2], Boyce, L.[2], Schein, E.[2], Tijerina, J.[2], Phung, K.[2], Gardiner, H.[3]

AFFILIATIONS

[1]*University of Texas Health Science Center at Houston*
[2]*UTHealth Houston School of Public Health*
[3]*University of Texas MD Anderson Cancer Center*

Background: Parks are important community assets for promoting physical activity globally, yet their use remains uneven. Understanding context-specific determinants is critical for informing equitable interventions. Place-based, community-led initiatives may offer a promising approach to improving access and use, but evidence on how local context shapes park use remains limited. Purpose: To explore multilevel determinants of park use and physical activity among community members in two cities – Baytown and Beaumont, Texas, United States. Methods: This qualitative study was conducted as part of the Be Well Communities initiative, a place-based, multi-sector effort to promote health and prevent cancer. Semi-structured interviews were conducted with adult park users and community members (n=18). Interviews examined perceptions of park access, safety, amenities, social influences, and broader environmental and policy factors. Data were analyzed using rapid qualitative procedures, guided by a socioecological framework. Results: Findings from 40 group and individual interviews revealed barriers and facilitators across multiple levels. At the intrapersonal level, participants described parks as spaces for both physical activity and mental restoration, alongside competing time demands. Interpersonal influences emphasized the importance of child and family engagement, with parks serving as key settings for social interaction and family-centered activities. Environmental determinants—such as park maintenance, availability of amenities, shade, and safety—were among the most salient influences on use, with safety concerns extending beyond crime to include supervision of children and overall comfort. Participants also highlighted broader structural and policy-level factors, including neighborhood investment and resource allocation, as shaping park quality and accessibility. Conclusions: Park use and physical activity are shaped by interacting determinants across socioecological levels, with environmental and structural factors playing a particularly prominent role in economically disadvantaged communities. Implications for Research and Practice: Findings support multilevel, equity-focused strategies that address park quality, safety, and resource allocation alongside individual-level factors. Investments in maintenance and amenities

Brazil

A Simplified Non-Invasive Model to Strengthen Cardiometabolic Risk Surveillance Systems in Community and Primary Care

AUTHORS

Maccarini Pandolfo, K.C.[1], Reckelberg Azambuja, C.[2], Vicente Pereira Barros, T.[2], Avila Froehlich, M.[3], Lopes dos Santos, D.[3]

AFFILIATIONS

[1]*UFSM*

[2]*Federal University of Santa Maria*

[3]*Graduate Program in Movement and Rehabilitation Sciences – UFSM, Brazil Exercise Physiology Laboratory (LAFIEX – UFSM)*

Background: Metabolic syndrome (MetS) is a major global public health challenge and a strong predictor of type 2 diabetes and cardiovascular disease. Its diagnosis depends largely on laboratory testing, limiting early risk identification in low-resource and community settings. Scalable, low-cost screening strategies are needed to strengthen cardiometabolic risk surveillance systems. Methods: A cross-sectional study included 430 adults (350 women; 80 men) diagnosed with MetS according to NCEP-ATP III criteria. Anthropometric (waist and hip circumference, body mass, height) and hemodynamic (systolic and diastolic blood pressure) measures were assessed. Multiple linear regression models were developed to estimate the Lipid Accumulation Product (LAP), a validated marker of cardiometabolic risk, using non-invasive predictors. Stepwise and enter methods were applied to identify the most parsimonious model. Results: The most explanatory model included waist circumference, diastolic blood pressure, and hip circumference ($R^2 = 0.42$; $p < 0.001$). A simplified two-variable model including waist circumference and diastolic blood pressure showed comparable performance ($R^2 = 0.39$; $p < 0.001$). Each 1 cm increase in waist circumference was associated with an approximately 1.9-unit increase in LAP, and each 1 mmHg increase in diastolic blood pressure corresponded to a 0.54-unit increase. Conclusions: A screening model based solely on waist circumference and diastolic blood pressure offers a feasible, low-cost, and scalable strategy for cardiometabolic risk identification. This approach may enhance early detection and referral while supporting the integration of non-invasive indicators into routine surveillance frameworks in community and primary healthcare contexts. Implications for Policy and Practice: Integrating simple anthropometric and blood pressure measures into routine assessments may strengthen cardiometabolic risk surveillance and improve the quality and reach of population-level monitoring systems. This model can support early identification and referral without increasing reliance on laboratory infrastructure, particularly in resource-constrained settings.

Finland

A Workplace Intervention to Reduce Prolonged Sitting and Increase Sit-to-Stand Transitions

AUTHORS

Akhavan Rad, S.[1], Torkki, P.[2], Korpelainen, R.[3], patija, K.[4], Kiwanuka, F.[5], Ryynänen, K.[6]

AFFILIATIONS

[1]*University of Helsinki*
[2]*Associated professor University of Helsinki*
[3]*Full professor University of Oulu*
[4]*Full professor University of Helsinki*
[5]*Post-doc, University of Eastern Finland*
[6]*health care and physiatry at Oulu University*

background: Prolonged sitting is associated with increased risk of chronic disease and adverse health outcomes. Workplace interventions have been proposed to reduce sedentary behaviour; however, their effectiveness remains uncertain. Purpose: To evaluate the effects of a workplace-based intervention on sitting time, sit-to-stand transitions, and work-related outcomes among office workers. Methods: A randomised controlled trial was conducted among 101 office-based workers (51 intervention, 50 control). The intervention included computer-based prompting software to interrupt sitting every 30 minutes and accelerometers to assess sitting time and physical activity. Outcomes included total and occupational sitting time, sit-to-stand transitions, work ability, and presenteeism. Results: Total and occupational sitting time did not change significantly following the intervention. However, sit-to-stand transitions during the workday increased significantly ($p < 0.01$). No significant changes were observed in work ability or presenteeism. At baseline, occupational and leisure-time sitting were moderately correlated ($\rho = 0.45$, $p = 0.001$). Conclusions: The intervention was effective in increasing breaks in sedentary behaviour but did not reduce overall sitting time or improve work-related outcomes. Implications for Policy and Practice: Workplace interventions that prompt regular movement may help reduce prolonged uninterrupted sitting. However, additional strategies may be needed to reduce total sitting time and improve work-related outcomes. Funding : This study was supported by the University of Helsinki and the Finnish Work Environment Fund (TSR).


Australia

Active yet sedentary: Social patterning of physical activity and sitting time across 27 European Union

AUTHORS

Memon, A.R.[1]

AFFILIATIONS

[1]*Victoria University, Melbourne*

Introduction: Physical activity and sedentary behaviour independently influence health and often coexist. People may be physically active yet spend prolonged periods sitting, and physical activity does not fully offset sitting-related health risks. Few studies have examined both behaviours simultaneously, particularly across the European Union (EU). Aim: To examine the sociodemographic correlates of physical activity and sedentary behaviour, separately and jointly, among EU adults. Methods: We analysed Special Eurobarometer 97.3 data from 25,141 adults aged ≥18 years across 27 EU countries. Physical activity was classified as weekly versus less than weekly, and daily sitting time as high (>7.5 hours/day) versus lower. Weighted multilevel logistic regression models were fitted for each behaviour, and multinomial logistic regression for the four joint behaviour profiles. Results: Overall, 49.4% were physically active weekly and 18.0% reported high sitting. Weekly activity was less common among women (odds ratio [OR]: 0.79, 95% confidence interval [CI]: 0.74–0.83), older adults (0.76, 0.69–0.83), married participants (0.87, 0.81–0.94), and large-town residents (0.70, 0.65–0.75), but more common among tertiary-educated adults (up to 1.60, 1.45–1.76), those of higher socioeconomic status (1.33, 1.18–1.49), and larger households (up to 1.72, 1.55–1.91). High sitting showed a partly contrasting pattern, being more common among tertiary-educated (1.83, 1.64–2.04) and urban residents (1.24, 1.14–1.36), but less common among older adults (0.71, 0.64–0.79) and larger households (0.60, 0.53–0.68). Overall, 7.8% were physically active yet highly sedentary, particularly those with tertiary education (relative risk ratio: 2.28, 1.98–2.63) and higher socioeconomic status. Conclusions: Physical activity and sedentary behaviour show partly contrasting social patterns. Promoting activity alone is unlikely to reduce sedentary time, highlighting the need for complementary strategies targeting groups at risk for each behaviour.

United States

Adapting Physical Activity to Extreme Weather: Community Experiences from Hurricanes Helene and Milton

AUTHORS

Wende, M.[1], Frank, D.[1], Aytur, S.[2], Stroope, J.[3], Gustat, J.[4], Umstattd Meyer, M.R.[5], Valentine Goins, K.[6], Wende, M.E.[1]

AFFILIATIONS

[1]*University of Florida*
[2]*University of New Hampshire*
[3]*Louisiana State University*
[4]*Tulane University*
[5]*Baylor University*
[6]*University of Massachusetts Chan Medical School*

Background: As the frequency and intensity of extreme weather events increase, communities face growing threats to infrastructure that supports physical activity (PA). Hurricanes Helene and Milton caused extensive flooding and infrastructure damage across the southeastern United States in 2024, yet little is known about how these disasters disrupted PA or the community resources that support recovery. Purpose: This study conducted in-depth interviews with individuals affected by Hurricanes Helene and Milton to explore how PA routines were affected by extreme weather and identify strategies for maintaining PA after hurricanes. Methods: Community members (n=11) living in North Carolina, South Carolina, and Florida who were affected by Hurricanes Milton and Helene in 2024 completed English-language interviews conducted by a trained facilitator. Audio recordings were transcribed verbatim. A coding framework was created based on the CDC's Building Resilience Against Climate Effects framework. Inductive and deductive approaches directed thematic analysis. Coding included two researchers, with intercoder agreement set at 80% on 95% of codes. Results: Participants noted environmental barriers to PA, including damage to natural environments (e.g., fallen branches, debris), recreational environments (e.g., closed trails, parks, and indoor facilities), and pedestrian environments (e.g., blocked sidewalks, fallen wires). Property damage also led to prolonged mental health symptoms and disruptions to PA routines. Accessible neighborhood spaces, such as food distribution sites, were identified as socially significant locations for PA. Participants noted that community support and social connection directly and indirectly fostered PA, especially in the immediate aftermath of hurricanes. Participants reported that children, older adults, and those living in rural areas were especially vulnerable to PA disruptions. Conclusion: Community-based programs that leverage existing social connections and essential community spaces, such as programming at food distribution sites, may support recovery efforts and community resilience in the aftermath of extreme weather.

Italy

Affective and social responses to different exercise formats: an exploratory study in psychiatric day-care settings.

AUTHORS

Duina, M.[1], Corretti, G.[2], Carraro, A.[1]

AFFILIATIONS

[1]*Faculty of Education, Free University of Bozen-Bolzano, Italy*

[2]*Department of Mental Health, ASL Toscana Nord-Ovest, Italy*

Background: Physical exercise is increasingly integrated into mental health care (Schuch et al.,2021;Tew et al.,2025). However, little is known about how different exercise formats are experienced in psychiatric day-care settings. Purpose: This exploratory study examined affective and social responses to three exercise formats: individual, in pairs, and team-based. Methods: A three-week intervention was conducted in three day-care centers, in which participants completed the activity formats in different weekly orders. Pre- and post-activity measures included the Feeling Scale (FS; Hardy & Rejeski,1989) and the Felt Arousal Scale (FAS; Svebak & Murgatroyd,1985). Post-activity assessments included the Physical Activity Enjoyment Scale (PACES; Carraro et al.,2008), the Inclusion of Other in the Self Scale (IOS; Aron et al.,1992), and the Rating of Perceived Exertion (RPE;Borg,1998), along with willingness to repeat the activity. Non-parametric and descriptive analyses were conducted. Results: Analyses focused on the 15 participants (aged M=43.8±14.6 years, 12 males) who completed all sessions. Small positive pre-post changes were observed in FS and FAS across all formats, with slightly stronger affective responses during in pairs activities (FS and FAS: $Z = -1.73$, $p = .083$, $r = .45$). No statistically significant differences emerged between individual, in pairs, and team-based activities in PACES, RPE, IOS, or willingness to repeat. Nevertheless, descriptive analyses showed that PACES and willingness to repeat were consistently high across all formats (M=4.33/5 and 8.28/10, respectively), and team-based activities were associated with higher IOS (M=5/7). Exploratory analyses suggested that older participants showed greater IOS during in pairs activities ($Z = -1.71$, $p = .087$, $r = .44$) and higher RPE during individual activities ($Z = -1.93$, $p = .054$, $r = .50$). Conclusions: These findings suggest that different exercise formats may elicit distinct affective and relational responses in mental health day-care settings. Implications for Policy and Practice: Further research involving larger samples is needed to better understand individual responses and guide future physical exercise-based interventions in mental health care.

Canada

An evaluation of enrollment, adherence, and physical fitness in a community-based exercise program

AUTHORS

ONeill, C.[1], Bodnar, I.[1], Hausen, M.[1], Fowles, J.[1]

AFFILIATIONS

[1]*Acadia University*

Background: After cardiac rehabilitation (CR), patients are encouraged to maintain lifestyle changes such as regular exercise. However, many lack the confidence or skills to exercise independently. A supervised rural community-based exercise program was developed for CR graduates to support their transition from hospital-based to independent or community exercise through trainee-led personal training. This study evaluated program enrollment, attendance, and physical fitness outcomes. Methods: Recent CR graduates (<1 year) from a rural hospital were eligible for a 10-week exercise program, offered for up to four academic semesters (2 years). At the end of each session, participants were asked if they wished to re-enroll. Fitness assessments were conducted pre- and post-program and included the 6-minute walk test (6MWT), chair sit-to-stand, timed up-and-go, and bicep curl. Sessions occurred three times weekly for 50 minutes, including interval-based aerobic training twice per week and strength training once per week. Results: Twenty participants (age 47–86 years; mean 65.3) completed one session (83% attendance). Nine (45%) enrolled in a second session (76.6% attendance). Among those who discontinued (n=11), reasons included poor winter weather (n=4), confidence to exercise independently (n=4), early class time (n=2), and travel (n=1). Of those continuing, 6 (30%) and 5 (25%) enrolled in third and fourth sessions, respectively. All who continued beyond the second session reported confidence in independent exercise. Significant improvements were observed across all fitness outcomes after the first session (e.g., 6MWT: 503.4 ± 82.3 m to 566.9 ± 89.9 m, $p<0.01$), with continued gains in subsequent sessions. Conclusions: Nearly half of participants continued beyond the initial program. Many who discontinued felt confident exercising independently, suggesting the program supports long-term self-management. The program also produced significant and sustained improvements in functional fitness.

Sweden

Associations Between 24-Hour Blood Pressure and Daily Health-Related Ratings in Workers with Physically Demanding Jobs

AUTHORS

Olsson, K.[1], Ekblom-Bak, E.[1], Lind, J.[1], Spetz, L.[1], Södergård, O.[1], Larsen, F.[1], Väisänen, D.[1]

AFFILIATIONS

[1]*The Swedish School of Sport and Health Sciences*

Background Workers with physically demanding jobs have been associated with impaired cardiovascular health. Elevated 24-hour blood pressure (BP) is considered a major contributing factor. Daily variations in health- and lifestyle-related factors, such as physical workload and musculoskeletal symptoms, could be associated with deviations in 24-hour BP in this population, but studies examining these associations remain limited. Purpose To examine associations between daily health-related ratings and deviations in 24-hour BP among workers with physically demanding jobs. Methods Seventeen workers from the Swedish industry (mean age 41, SD±9 years; women n=5) who self-reported their jobs as physically demanding were observed for 8 weeks. Using a 0–10 scale, participants completed 16 daily health-related ratings, including yesterday's physical workload, training load, work-related mental stress, food and fluid intake, alcohol consumption, previous sleep, and current status of muscle fatigue, injury, illness, pain, non-work-related mental stress, mood, and recovery/energy levels. During 10 days, 24-hour ambulatory BP was monitored using the Corsano Cardiowatch 287-2B bracelet. Mixed-effects models were used to estimate associations between daily ratings and deviations in mean arterial pressure (MAP) over the 10-day monitoring period. Results Higher physical workload, alcohol consumption, and muscle fatigue were associated with higher MAP relative to the 10-day average (estimates [95% CI]: 0.34 [0.07–0.60], 0.65 [0.30–1.01], and 0.56 [0.13–1.00], respectively). Higher illness status was associated with lower MAP (-0.87 [-1.47–-0.26]). Other ratings showed no significant associations. Conclusions Daily self-reported health ratings were associated with deviations in 24-hour BP among workers with physically demanding jobs. Further longitudinal studies are warranted to clarify these associations. Implications for Policy and Practice Given that 24-hour BP is an important but difficult-to-measure health indicator, daily health-related ratings may offer a complementary approach for monitoring cardiovascular health in workers with physically demanding jobs.

Funding Forte, Dnr 2024-00865

Norway

Associations between adolescent physical activity intensity spectra and mental health: a multivariate pattern analysis

AUTHORS

Vedøy, I.B.[1], Skulberg, K.R.[1], Aadland, E.[2]

AFFILIATIONS

[1]*Inland Norway University*
[2]*Western Norway University of Applied Sciences*

Background: Traditionally, relationships between physical activity [PA] and mental health have been analysed using linear regression analyses. This is problematic because of the strong multicollinearity among the intensity variables constituting the PA intensity spectrum. Furthermore, the cut-points used to define these intensities vary among studies, potentially confusing interpretation and comparison of findings. Multivariate pattern analysis can handle multicollinear data through latent-variable modelling. Purpose: To gain a detailed understanding of the cross-sectional and longitudinal relationships between PA and mental health by exploring the associations between high-resolution PA intensity spectra and mental health problems [MHP] (internalizing and externalizing problems) and mental wellbeing [MWB] among adolescents. Methods: Data from a three-year longitudinal study of 599 adolescents (54.4 % female; aged 12/13-15 years) from Norway were analysed using a high-resolution PA intensity descriptor constituting 17 intensity variables: time spent in 0-99, 100-999, (…), ≥15.000 cpm. To increase the stability of cross-sectional data, mean PA variables across the three waves of data collection were created. Multivariate pattern analyses were used to explore relationships. Results: Significant associations between PA signatures and internalizing- and externalizing problems were found for sedentary time (0-99 cpm) (positive association) and high intensity PA (8000-9999 cpm) (negative association) in crude models. These associations disappeared when adjusting for covariates. For MWB, positive associations were found for light to moderate PA (100-3999 cpm) in both crude and adjusted models. For the longitudinal data, no significant associations were found. Conclusions: No clear evidence of a relationship between PA and MHP was found. For MWB, lower-intensity PA was significantly associated. PA may therefore influence adolescents' MWB levels to a greater extent than their MHP. Implications for Policy and Practice: Multivariate pattern analyses may provide more detailed information about the PA-mental health relationship than traditional analyses. Funding: Funded by the Research Council of Norway (238212/F60).

Canada

Associations Between Daily Physical Activity and Mood in Youth at Risk for Depression

AUTHORS

Ames, M.[1], Sihoe, C.E.[1], Grant, G.[1], Styba-Nelson, K.[1], Tremblett, J.[1], Buckler, E.J.[1]

AFFILIATIONS

[1]*University of Victoria*

Background: Depression is common among youth, with approximately 6.5% of Canadian youth experiencing major depression each year. There is robust evidence that physical activity can be a protective factor for the development of depression among youth; however, how physical activity influences mood at a daily level is less clear. Additionally, there is little understanding of how the presence of significant depressive symptoms may moderate the association between physical activity and mood. Purpose: Compare daily physical activity engagement among youth who are at risk of depression to those not at risk, and examine the moderating effects of baseline depressive symptoms on the daily association between physical activity and mood. Methods: Using an intensive longitudinal design, teens (N=171; Mage=15.06, SD=1.39; 63.7% girls, 5.3% gender diverse) completed baseline measures assessing their risk for depression (CES-D) and then answered daily surveys on their mood for 7 days. Physical activity was objectively measured using accelerometer. Results: Almost half (47.4%) of our sample reported at-risk symptoms for depression. Preliminary analyses show a small, negative correlation between depressive symptoms and daily steps, r=-0.15, p=0.049; however, youth at-risk for depression (M=9631, SD=3568) did not differ from youth not at-risk (M=10327, SD=3472) on daily steps. The potential moderating impact of symptoms on daily associations between steps and mood will be examined using multi-level structural equation modelling. Conclusion: Preliminary analyses suggest that depressive symptoms are associated with lower daily step counts, but youth at risk for depression do not differ in step counts to those not at risk. Implications for Policy and Practice: Interventions targeting youth experiencing depressive symptoms may be necessary to promote engagement in physical activity and its mental health benefits. Funding: Social Sciences and Humanities Research Council of Canada Insight Development Grant (#430-2022- 00031, PI Buckler) and Insight Grant (#435-2024-1420, PI Ames).

United States

Associations Between Whole-of-School Physical Activity Opportunities and Academic Achievement in U.S. Elementary Schools

AUTHORS

Craig, D.[1], Lanza, K.[2], Pfledderer, C.[2], Onadeko, K.[2], Lee, M.[2], Pavlovic, A.[3], DeFina, L.[3], Walker, T.[2]

AFFILIATIONS

[1]*University of Texas Health Science Center at Houston*

[2]*UTHealth Houston School of Public Health*

[3]*Kenneth H. Cooper Institute at Texas Tech University Health Sciences Center*

Background: A whole-of-school approach to physical activity (PA) is recommended to support students' health and academic achievement. However, most research examines the association between individual school-based PA practices (e.g., physical education (PE) alone) and academic outcomes in isolation, with limited attention to evaluating the combined influence of multiple PA opportunities. Purpose: To evaluate how whole-of-school PA approaches relate to standardized academic achievement outcomes in U.S. elementary schools. Methods: We analyzed cross-sectional data from U.S. elementary schools participating in the NFL PLAY60 FitnessGram Project during the 2022-23 school year. From surveys administered to school staff, we created a WOS Index (WOSI) ranging from 0 (low) to 12 (high) for: PE, recess, before-school programs, after-school programs, classroom-based approaches, and active transportation. We collected data on the percentage of students in a school performing at or above proficiency levels in English/language arts and math from state education agencies. Multilevel linear models examined how PA practices—separately and together—associate with academic achievement, controlling for state clustering and school-level characteristics (e.g., location, student composition, student enrollment). Results: Among 152 elementary schools from 19 states, the mean WOSI score was 6.3 and the average English/language arts and math proficiency was 38% and 36%, respectively. We found no significant association between WOSI scores and English/language arts in unadjusted (β=1.14, p=0.75) or adjusted models (β=0.27, p=0.55). WOSI scores were associated with math in unadjusted models (β=1.28, p=0.03), but was not significant after adjustment (β=0.56, p=0.21). Schools offering ≥150 min/week of PE had significantly higher math achievement (β=8.70, p=0.018) than those offering <75 min/week. Conclusions: Although the WOSI was not associated with academic achievement after adjustment, schools providing ≥150 minutes of PE weekly demonstrated higher math proficiency. Implications for Policy & Practice: As education systems worldwide face increasing academic accountability, these findings underscore the importance of providing adequate PE time.

Norway

Barriers to physical activity in adolescent childhood cancer survivors: A PACCS study

AUTHORS

Grydeland, M.[1], Bratteteig, M.[2], Rueegg, C.S.[3], Lie, H.C.[4], Larsen, E.H.[5], Torsvik, I.K.[6], Schindera, C.[7], Götte, M.[8], Lähteenmäki, P.M.[9], Larsen, H.B.[10], Anderssen, S.A.[11], Ruud, E.[5], Thorsen, L.[12]

AFFILIATIONS

[1]Norwegian School of Sports Sciences

[2]2 Department of Sports Medicine, Norwegian School of Sport Sciences, Oslo, Norway, 3 Oslo Centre for Biostatistics and Epidemiology, Oslo University Hospital, Oslo, Norway

[3]3 Oslo Centre for Biostatistics and Epidemiology, Oslo University Hospital, Oslo, Norway 4 Epidemiology, Biostatistics and Prevention Institute, University of Zurich, Zurich, Switzerland

[4]5 Department of Behavioural Medicine, Faculty of Medicine, University of Oslo, Oslo, Norway

[5]5 Department of Behavioural Medicine, Faculty of Medicine, University of Oslo, Oslo, Norway 6 Department of Pediatric Hematology and Oncology, Oslo University Hospital, Oslo, Norway

[6]7 Department of Paediatrics, Haukeland University Hospital, Bergen, Norway

[7]8 University Children's Hospital Basel, Basel, Switzerland 9 Institute of Social and Preventive Medicine, University of Bern, Bern, Switzerland

[8]10 West German Cancer Center, University Hospital Essen, Essen, Germany

[9]11 Department of Pediatric and Adolescent Hematology/Oncology, Turku University Hospital, University of Turku, Turku, Finland

[10]12 Department of Pediatrics and Adolescent Medicine, Copenhagen University Hospital Rigshospitalet, Copenhagen, Denmark

[11]2 Department of Sports Medicine, Norwegian School of Sport Sciences, Oslo, Norway

[12]13 Unit on Late Effects after Cancer Treatment, Department of Oncology, Oslo University Hospital, Oslo, Norway. 14 Department of Clinical Service, Division of Cancer Medicine, Oslo University Hospital, Oslo, Norway

BACKGROUND/PURPOSE A physically active lifestyle may reduce the risk of cancer- and treatment-induced late-effects in childhood cancer survivors (CCS). However, few young CCS meet the physical activity (PA) guidelines (≥60 min/day of moderate-to-vigorous PA). This study investigated self-reported barriers to PA in adolescent CCS in relation to their PA level. METHODS CCS ≥1-year post-treatment and aged 9–16 years were recruited from 5 European countries within the Physical Activity in Childhood Cancer Survivors (PACCS) study. Barriers to PA were assessed by rating 15 statements reflecting PA barriers identified by adolescent CCS on a 5-point Likert scale (1=totally disagree, 5=totally agree). PA was assessed by ActiGraph GT3X+ accelerometers for 7 days. Mixed ordinal regression models provided odds ratios (OR) and 95% confidence intervals (CI) to compare reported barriers to PA between survivors meeting and not meeting the PA guidelines. RESULTS In total, 418 survivors (mean age 12.2±2.2 years; 53% male; 47% leukemia) provided valid data. Ten out of 15 cancer-related barriers were associated with PA level. CCS reporting barriers had significantly lower odds of meeting the PA guidelines, than CCS not reporting these barriers, i.e.: "I can't keep up like I used to" (OR: 0.27, 95%CI: 0.17, 0.65, "It's hard to get started" (OR: 0.30, 95%CI: 0.20, 0.47), "I'm too tired" (OR: 0.39, 95%CI 0.26-0.57), "I'm not as good at it as before" (OR: 0.41, 95%CI: 0.26, 0.64), "I'm in bad physical shape" (OR: 0.43, 95%CI: 0.28, 0.65), all $p<0.001$. Barriers such as pain, depression, protective parents, or time were not associated with PA level. CONCLUSIONS Perceived barriers of PA were associated with PA level for adolescent CCS, indicating that cancer and cancer treatment influence PA at an early age. IMPLICATIONS Cancer care should include tailored interventions to address and lower PA barriers in young CCS to facilitate PA.

Switzerland

Beyond the ‘Gym User’: Distinct exercise types and intersectional associations among 57,000 Swiss fitness-center members

AUTHORS

Lenze, L.[1], Frahsa, A.[1]

AFFILIATIONS

[1]*University of Bern*

Background: Fitness centers, or gyms, have recently become one of the most popular physical activity settings in Europe. However, surprisingly little is known about how people actually use gyms and how the usage relates to socioeconomic characteristics. Purpose: This study identifies distinct exercise patterns across six training modalities (cardio, strength machines, freeweights, functional training, group fitness, and wellness/spa) and examines how these patterns are associated with intersectional socioeconomic factors among a large, diverse sample. Methods: We draw on cross-sectional survey data from 57’150 gym members aged 16-90 of one of Switzerland’s largest gym providers. Using latent class analyses, we identified distinct exercise patterns based on the six modalities. We then applied latent class regressions to examine how classes relate to gender, socioeconomic status (SES), age, and their interactions. Results: Four distinct classes were identified, robust across multiple checks and genders. “Cardio and strength machine users”, the largest class, include more members with low SES, and are particularly common among older men and younger women. “Free-weight-dominant exercisers” have above-average SES and are male-dominated, particularly at ages 30-44, though young women also cluster here. “Group-fitness-only users” are predominantly women over 30, in particular those aged 30-64. “Wellness-oriented members”, the smallest class, grow more common among women with increasing age, particularly with above-average SES. Conclusions: Distinct exercise patterns characterise this emerging setting. Intersectional analyses provide detailed insights into how socioeconomic status shapes exercise patterns, moving beyond generic usage categories to understand gyms as complex spaces of socioeconomic stratification. Implications for Policy and Practice: Because gym use is stratified by SES, gender, and age, generic membership models risk reinforcing existing inequalities. Providers and policymakers can use these patterns to design targeted programming, pricing, and outreach that broaden access to underrepresented groups and make gyms more equitable settings for health promotion. Funding: Lindenhof Foundation Bern.

Canada

Beyond the Chair: National Patterns of Sedentary Behaviour in Canada

AUTHORS

Riopel-Meunier, J.[1], Anassour Laouan Sidi, E.[1], Poirier, P.[2], Piché, M.E.[2]

AFFILIATIONS

[1]*Institut national de santé publique du Québec*
[2]*Institut universitaire de cardiologie et de pneumologie de Québec*

Background Sedentary behaviour is an established risk factor for cardiometabolic disease. However, population-level differences in screen time (ST), total sedentary time (TST), and adherence to Canadian sedentary behaviour recommendations remain insufficiently characterized. Purpose To examine differences in ST and adherence to combined Canadian sedentary behaviour recommendations according to age, education, body mass index (BMI), and waist circumference (WC) among Canadian adults. Methods Cross-sectional analyses were conducted using nationally representative data from adults aged ≥18 years participating in the 2018-2019 Canadian Health Measures Survey (n=5,797). TST was accelerometer-measured and ST self-reported. Participants were classified as meeting recommendations only if both thresholds were achieved (<9 h/day regarding TST and <3 h/day regarding recreational ST). Weighted proportions with 95% CI were calculated. Results Adults with high WC (≥102 cm men; ≥88 cm women) had higher daily ST than those below threshold (3.8 vs. 3.3 h/day). ST was higher among adults 18–34 y (4.2 h/day) and ≥65 y (4.4 h/day) vs. adults 35–64 y (3.3 h/day). Individuals with high school diploma (grade 12) reported higher ST than those with postsecondary education (4.2 vs. 3.6 h/day). Overall, only 17% met both recommendations. Adherence was lowest in adults ≥65 y (10.1%) and similar in adults 18–34 y (17.7%) and 35–64 y (17.9%). Differences by BMI categories were modest (15.5–17.3%), and adherence did not differ by sex (16.9 vs. 16.4%) and WC (16.9 vs. 16.7%). Combining ST and TST attenuated disparities, suggesting TST may act as a cross-cutting behaviour. Conclusion Fewer than one in six Canadian adults meet combined sedentary behaviour recommendations. While sedentary time varies by age, education, and waist circumference, overall adherence remains low, particularly among older adults. These findings support the need for population-wide strategies, with targeted efforts toward older and less educated groups.

Colombia

Bogota Activa: Physical activity and recreation programs promoting active lifestyles and wellbeing in community-settings

AUTHORS

Vivas, A.[1], Molina Gaitan, C.Y.[2], Candela Garcia, A.G.[3], González, S.A.[3], Domínguez-Sanchéz, M.A.[3], Garcia cañon, D.[3], Morales Caicedo, I.D.[3], Combariza Pulido, L.J.[4]

AFFILIATIONS

[1]*Escuela Colombiana de Rehabilitación and IDRD and Federal University of Rio Grande do Norte*

[2]*Instituto Distrital de Recreación y Deporte IDRD*

[3]*Instituto Distrital de Recreación y Deporte*

[4]*Instituto Distrital de Recreacion y Deporte*

Background: The District Institute of Recreation and Sports (IDRD) offers public and free community-based programs that promote active lifestyles through recreational and physical activities developed in urban settings, such as parks, public spaces and Happiness Centers. However, evidence on the relationship between the length of participation in these programs and associated behavioral outcomes remains limited. Purpose: To evaluate the association between the length of participation in community recreation and physical activity (PA) programs of the IDRD with compliance of PA guidelines and satisfaction with life (SWL) in adult users. Methods: A cross-sectional assessment of Bogota Activa participants was conducted in 2025. The sample comprised 2.849 participants. PA was measured with the International Questionnaire of PA, and SWL was assessed with the SWL Scale. Logistic regression was used to evaluate the association with compliance with PA guidelines and linear regression for satisfaction with life (SWLS), adjusting for age, sex and socioeconomic status Results: Participants who attended the programs for more than a year had higher probabilities of meeting PA guidelines compared to recent users (OR=1.78; 95% CI 1.44–2.20). No differences were observed in the 6–12 month group. SWL showed a marginally positive association with longer participation time (β=0.55; p=0.052). Conclusions: A longer stay in IDRD community programs is associated with a greater probability of meeting PA recommendations, suggesting behavioral benefits of public and free initiatives accessible to the population. Implications for policy and practice Strengthening strategies to improve adherence to community-based PA and recreation programs can enhance population effects on health and well-being. Funding: This research is supported by the District Institute of Recreation and Sport (IDRD) in Bogotá.

United States

Cardiovascular health and future risk of cardiovascular events: the Tulsa Heart Study

AUTHORS

Wickel, E.[1], Atilano, O.[1], Hoover, A.[1], Krishnan, B.[1], Smucker, E.[1], Tefft, M.[1]

AFFILIATIONS

[1]*University of Tulsa*

Background: Cardiovascular disease (CVD) remains a leading cause of morbidity and mortality, with significant geographic and social disparities. Health behaviors and factors are critical to cardiovascular health (CVH) and CVD risk assessment. Purpose: This project describes findings from an on-going study assessing CVH and CVD risk estimates among adults without known CVD. Methods: Participants completed questionnaires assessing demographic characteristics and health behaviors, including MVPA, nicotine, sleep, and diet. Health factors, including BMI, non-HDL cholesterol, blood glucose, and blood pressure, were obtained from electronic medical records. Individual-level social risk was assessed using a questionnaire evaluating social connections, health literacy, finances, transportation, food insecurity, safety, and housing (no individual risk vs ≥ 1 positive response), whereas participants' residential zip codes were used to determine neighborhood-level social deprivation index (SDI) deciles (low risk = SDI deciles ≤ 5; high risk = SDI deciles ≥ 6). CVH scores and CVD risk estimates were calculated using Life's Essential 8 metrics and PREVENT equations, respectively, and associations were examined across combined individual- and neighborhood-level risk categories (reference: low individual/neighborhood risk). Results: Among 104 participants (56% female, 80% White; mean age 47.2 years), mean CVH scores were lower in the high individual/low neighborhood risk group than in the reference group (62.0 vs 69.7; difference = 7.7, 95% CI: 1.6-13.7). The high individual/high neighborhood risk group also had higher 10-year risks for CVD (difference = 2.6, 95% CI: 0.4-4.8) and heart failure (difference = 2.9, 95% CI: 0.9-4.8), but not atherosclerotic CVD, using PREVENT base models. Conclusions: Social risk was associated with less favorable CVH and relatively higher risk of future CVD events. Implications for Policy and Practice: Routine evaluation of social risk factors may improve risk stratification and inform CVD prevention strategies. Funding: This work was supported by American Heart Association grant #25AIREA1365312 / Wickel / 2025.



Netherlands

Characterising Physical Activity Counselling Interactions in Adults with Osteoarthritis or Total Joint Prosthesis

AUTHORS

Wildekamp, M.[1], Te Loo, L.M.[2], Jelsma, J.G.[2], Van Dijk, M.L.[2], Schumacher, C.C.[3], Vrijsen, J.[3], Van den Akker-Scheek, I.[3], Hoekstra, F.[4]

AFFILIATIONS

[1]*University Medical Center Groningen*

[2]*Amsterdam UMC, location Vrije Universiteit Amsterdam, Department of Public and Occupational Health, Amsterdam, The Netherlands*

[3]*University of Groningen, University Medical Center Groningen, Department of Orthopaedics, Groningen, The Netherlands;*

[4]*The University of British Columbia, Centre for Chronic Disease Prevention and Management, Kelowna, BC, Canada;*

Background: Physical activity (PA) levels are low among adults with osteoarthritis (OA) or a total joint prosthesis (TJP). Counselling interventions show promise in increasing PA, but little is known about how PA-related behaviour change techniques (BCTs) are delivered and received. Purpose: To characterise counselling sessions with clients with OA or TJP by examining interaction durations of BCT delivery and receipt. Methods: We analysed intake counselling sessions from a subgroup of the Dutch multicentre Lifestyle Front Office for Integrating Lifestyle Medicine in the Treatment of patients (LOFIT) trial. Clients with OA or TJP, referred by a hospital medical specialist, received counselling from lifestyle coaches to determine referral to community-based lifestyle initiatives. Transcripts were independently coded by two researchers using a coding manual including PA-related BCTs delivered by coaches and received by clients, with consensus discussions. State Space Grid (SSG) analyses examined interaction durations. Results: Sixteen transcripts involving five lifestyle coaches (80%female) and sixteen clients (mean age 60±11.8 years, 50%female) were analysed. Sessions lasted 57±10.5 minutes on average. The top three PA-related interaction states were: 1) coaches providing information about referral options while clients listened (5.5±4.0 min), 2) clients discussing barriers and facilitators related to physical capability while coaches listened (2.1±2.1 min), and 3) clients discussing their needs and preferences for referral options while coaches listened (1.9±1.7 min). Interaction durations varied considerably within and between sessions. Conclusions: PA counselling for adults with OA or TJP is highly interactive. Clients actively discuss barriers and needs, while coaches provide referral information. Variability in interaction states suggests sessions are tailored to individual client priorities. Implications for Policy and Practice: SSG analyses can inform coach training and the design of client-centred counselling interventions to enhance PA engagement and referral success. Funding (if applicable): LOFIT is funded by the Netherlands Organization for Health Research and Development (no.555003208).

United States

Childhood Adversity and Device-Based Physical Activity in Adolescence: Evidence from the ABCD Study

AUTHORS

Hunt, E.[1], Brazendale, K.[2], Pfledderer, C.[3]

AFFILIATIONS

[1]*UTHealth*
[2]*University of Central Florida*
[3]*UTHealth-Austin*

Background: Childhood adversity has been linked to poorer cardiometabolic and behavioral health outcomes; however, less is known about its relationship with objectively measured physical activity during adolescence. Purpose: Using wearable device data, we examined whether adverse childhood experiences were associated with daily moderate-to-vigorous physical activity (MVPA) and step counts across early adolescence. Methods: Data were drawn from 7,477 adolescents participating in the Adolescent Brain Cognitive Development (ABCD) Study who provided valid Fitbit data at Year 2 and/or Year 4 follow-up. Valid wear days were defined using established wearable quality-control procedures, including exclusion of implausible MVPA values (>600 min/day) and inclusion of weekend days. Multilevel mixed-effects models with random participant intercepts were used to examine associations between adversity (≥2 and ≥4 experiences) and daily MVPA minutes and step counts. Models adjusted for wave, sex, race/ethnicity, and parent education. Results: Across 186,492 valid wear days, adolescents accumulated a mean of 30.2 (SD=46.4) minutes of MVPA per day. Youth with ≥2 adverse experiences accumulated 2.8 fewer minutes of MVPA per day (coef.= −2.76, 95%CI −4.01, −1.51) and 338 fewer steps per day (coef.= −338, 95%CI −491, −185) compared with peers reporting fewer adversities. Those with ≥4 adversities accumulated 1.4 fewer MVPA minutes per day (coef.= −1.39, 95%CI −2.54 to −0.24) and 283 fewer steps per day (coef.= −283, 95%CI −424 to −143). Conclusions: Greater exposure to childhood adversity is associated with lower device-based measured physical activity during adolescence. Although daily differences were modest, persistent reductions in MVPA and step accumulation may contribute to long-term cardiometabolic disparities. Interventions targeting physical activity promotion among youth exposed to adversity may mitigate downstream health risk.

United Kingdom

Community-Led Street Initiatives Accelerating Active Transport and Sustainable Neighbourhood Transitions

AUTHORS

Harrington, D.[1], Herring, E.[2], Cory, K.[3], Williams, E.[4], Bonner, J.[1]

AFFILIATIONS

[1]*University of Strathclyde*
[2]*Glasgow School of Art*
[3]*Women on Wheels*
[4]*Crown Connects*

Background Local initiatives can accelerate community visions to create more physically active, sustainable neighbourhoods. Small-scale, community-led initiatives can overcome slow progress in implementing active transport and active urban design policies through action. We identified three increasingly popular initiatives that enable people to be more physically active while also allowing them to envisage something different for their neighbourhoods. Program Delivery Bike Buses (children and responsible adults cycling as a group to school on a set route), Kidical Mass (a free organised bike ride designed for children to cycle together on public roads) and Play Streets (temporarily closing roads to vehicle traffic creating safe spaces in front of homes) are three community-led initiatives growing in popularity in Scotland and internationally. Evaluation and Impact A transdisciplinary research and practice network across cities including Glasgow, Barcelona, Lisbon and Worcester are examining these interventions individually and collectively. Mixed and innovative evaluation methods including interviews, document reviews, photography, sound recordings, postcarding and in-person observations are being used. An evaluation lens drawn from systems and sociological-orientated sustainability highlights how the initiatives are interconnected and influence one another. Their collective voice and acknowledgement of their alignments and tensions can help deal with car dominance, how streets are used and reclaim streets as shared social and physically active spaces. Conclusions Collectively, Bike Buses, Kidical Mass and Play Streets contribute to transitions toward healthier, inclusive and socially sustainable. Practical Implications This work aligns with national and international green transition policy and funding (e.g. Horizon Europe), highlighting the co-benefits of these physical activity initiatives. Consistent funding, legislation, accelerating current policies or simply reducing bureaucratic barriers for these initiatives offers practical pathways to healthier and more sustainable communities. Knowledge from different disciplines open-up new ideas and support such shifts. Funding: RSE Williamson Trust, Paths for All Smarter Choices Smarter Places, EPSRC-aligned IAA.

Canada

Correlates of Muscle and Bone Strengthening Guideline Adherence in Children and Adolescents: GAC-PAQ Pilot Study

AUTHORS

Rostami Haji Abadi, M.[1], Jauregui, A.[2], Baghestani, A.[3], Widyastari, A.[4], Khadilkar, A.[5], Delisle Nyström, C.[6], Santos Silva, D.A.[7], Argumedo Garcia, G.[2], Brazo-Sayavera, J.[8], Richards, J.[9], Löf, M.[6], Kuntembwe, M.[10], Smith, M.[11], Subedi, N.[12], Sarmiento, O.L.[13], Akwaboah, P.[14], McRae, R.[15], Sepulveda, R.Y.[16], Mandlik, R.[5], Aubert, S.[17], Neves de Oliveira, S.[18], Manyanga, T.[19], Mwase-Vuma, T.W.[10], Loney, T.[3], Hamrik, Z.[20], Tremblay, M.S.[15], Zavala Crichton, J.P.[16], Oyeyemi, A.[21], Larouche, R.[14]

AFFILIATIONS

[1]*University of Lethbridge*
[2]*Instituto Nacional de Salud Pública, Cuernavaca, Mexico*
[3]*Mohammed Bin Rashid University Of Medicine and Health Sciences, Dubai, United Arab Emirates*
[4]*Mahidol University, Bangkok, Thailand*
[5]*Hirabai Cowasji Jehangir Medical Research Institute, Pune, India*
[6]*Karolinska Institutet, Huddinge, Sweden*
[7]*Federal University of Santa Catarina, Florianópolis, Brazil*
[8]*Universidad Pablo de Olavide, Seville, Spain*
[9]*Victoria University of Wellington, Wellington, New Zealand*
[10]*University of Malawi, Zomba, Malawi*
[11]*University of Auckland, Auckland, New Zealand*
[12]*Nepal Development Society, Kathmandu, Nepal*
[13]*Universidad de los Andes, Bogota, Colombia*
[14]*University of Lethbridge, Lethbridge, Canada*
[15]*CHEO Research Institute, Ottawa, Canada*
[16]*Universidad Andrés Bello,Santiago, Chile*
[17]*Active Healthy Kids Global Alliance, Avignon, France*
[18]*Ambrose University, Calgary, Canada*
[19]*University of Northern British Columbia, Prince George, Canada*
[20]*Palacký University Olomouc, Olomouc, Czech Republic,*
[21]*Arizona State University, Phoenix, USA*

Purpose: Muscle and bone strengthening activities (MBSA) are an essential part of physical activity (PA) for children/adolescents. No study has compared MBSA with a consistent measure across low- and middle-income (LMICs) and high-income (HICs) countries. We explored sociodemographic correlates of child- and parent-reported MBSA among 8- to 17-year-old participants in the Global Adolescent and Child Physical Activity Questionnaire (GAC-PAQ) pilot study. Methods: We recruited child-caregiver dyads, stratified by urbanicity and child sex/gender, across 17 countries. Participants and one caregiver completed the app-based GAC-PAQ, which includes a single item assessing past-week MBSA frequency. We categorized responses as ≥3 vs. <3 days/week of MBSA consistent with the World Health Organization's PA guidelines. We categorized countries as LMICs or HICs based on the World Bank classification. We used generalized linear mixed models to examine associations between sociodemographic characteristics (difficulties/disability status, ethnicity, parent education, income adequacy) and child- and caregiver-reported MBSA, adjusting for child age, child gender (child-reported) or sex (caregiver-reported), and country income classification. Results: A total of 593 children/adolescents (51% girls; 50% females) and 589 caregivers completed the questionnaire. Less than half (48%) of children/adolescents reported engaging in ≥3 days/week of MBSA (42% in LMICs and 56% in HICs). Based on caregiver report, 49% of participants met the guidelines (49% and 50%). Odds of engaging in ≥3 days/week of MBSA were higher among boys/males versus girls/females in the children/adolescents-reported model (OR=1.90; 95% CI=1.35-2.68) and the caregiver-reported model (1.95; 1.35–2.81). In children/adolescents-reported models, participants from families reporting income difficulties (0.45; 0.25-0.80) or neither income difficulties nor ease (0.54; 0.34-0.86) had lower odds of meeting the MBSA guidelines than those from families reporting ease with income ($p<0.05$). Conclusion: Fewer than half of children/adolescents engage in sufficient MBSA, highlighting the need to promote MBSA, especially among girls and families reporting low income adequacy.

United States

Culturally-Tailored, Family-Based Physical Activity Intervention for Urban Black Girls with Asthma in Chicago, Illinois, U.S.

AUTHORS

Nyenhuis, S.[1], Cavalier, A.[2], Wright, B.[3], Luna, J.[3], Langer, S.[4], Salvo, D.[5], Volerman, A.[6], Min, H.[1], Spadoni, N.[1]

AFFILIATIONS

[1]*The University of Chicago*
[2]*University of Chicago, Department of Pediatrics*
[3]*The University of Chicago, Department of Pediatrics*
[4]*Arizona State University*
[5]*University of Texas-Austin*
[6]*The University of Chicago, Department of Medicine*

Background: Physical inactivity is associated with poor asthma outcomes. In the US, Black girls are disproportionately affected by both physical inactivity and asthma morbidity. Family-based approaches to physical activity are effective, yet, family-based physical activity interventions for urban Black girls with asthma are lacking. Purpose: Describe a novel, culturally-tailored, family-based physical activity intervention for urban Black girls with asthma and baseline levels of asthma control and physical activity among study participants. Methods: We adapted and are pilot-testing a culturally-tailored, family-based lifestyle physical activity intervention, informed by the COM-B model. Black girls (8-12 years) with asthma and their mothers (dyads) were recruited through an urban academic health system in Chicago, Illinois. Baseline assessments included demographics, asthma control test (c-ACT/ACT), Physical Activity Questionnaire-Child (PAQ-C), exhaled nitric oxide, and accelerometry (Actigraphs). Results: A multi-component intervention was developed, including: wearable physical activity tracker; individualized step goals delivered via text messaging; and six group sessions providing asthma education, strategies to overcome barriers to physical activity for girls living with asthma, and supervised engagement in age-appropriate and culturally-sensitive activities. Thirty mother-daughter dyads enrolled in the pilot. At baseline, mothers were on average 40.1 years (SD=7.1); 87% had at least some college education, 46% worked full-time, and 33% reported a low household income. Girls were on average 9.9 years old (SD=1.6) and at baseline had uncontrolled asthma (c-ACT/ACT: 17.5±5.11) and low physical activity levels (PAQ-C: 2.69±0.76). Conclusions: Urban Black girls with asthma in our pilot study demonstrated poor asthma control and low activity, highlighting need for effective interventions. Ongoing evaluation will assess preliminary efficacy of this culturally-tailored, family-based lifestyle physical activity intervention. Importance for Global Policy and Practice: Physical activity remains underutilized for asthma management globally. Culturally-tailored, family-based interventions for socially- and clinically-vulnerable youth and families can help reduce physical inactivity and health disparities. Funding: NIH/NIMHD R21MD019333

United States

Designing a Culturally Tailored mHealth Muscle-Strengthening Intervention for Black Women with Obesity: A Qualitative Inquiry

AUTHORS

Joseph, R.P.[1], Peterson, S.[2], Gaesser, G.[3]

AFFILIATIONS

[1]*Arizona State University*

[2]*Edson College of Nursing and Health Innovation, Arizona State University*

[3]*College of Health Solutions, Arizona State University*

Background: Only approximately 28% of Black women in the United States meet national guidelines for muscle-strengthening activities (MSA), despite MSA benefits for reducing cardiometabolic disease risk and improving quality of life. This qualitative study conducted formative research to inform the design of a culturally tailored, mobile health (mHealth)-delivered MSA intervention for Black women with obesity. Methods: Semi-structured interviews were conducted with 18 participants recruited from an ongoing mHealth intervention designed to promote moderate-to-vigorous physical activity (MVPA) among insufficiently active Black women with obesity. Participants completed a brief survey assessing demographic characteristics and current MVPA and MSA participation, followed by a Zoom video interview. Interviews were recorded, transcribed verbatim, and analyzed using deductive content analysis. A priori codes, developed from the interview guide, were used to examine three key domains: (1) interest in an mHealth MSA intervention, (2) preferred MSA modalities, and (3) preferences for intervention delivery. Results: Participants, on average, were 49.1 ± 12.1 years old, had a BMI of 36.7 ± 6.3 kg/m², and reported 90.1 ± 53.9 minutes/week of MVPA. Eleven participants (61.1%) reported regularly performing MSA, averaging 2.2 ± 1.1 days/week. All participants expressed interest in an mHealth MSA intervention. Preferred MSA modalities included bodyweight exercises and resistance bands due to convenience, low cost, and minimal equipment needs. Preferences varied regarding whether MSA activities should be promoted as a stand-alone activity or integrated with MVPA. Participants preferred video-based intervention delivery, including live and pre-recorded workouts, led by Black women representing diverse body shapes and skin tones, with sessions that could be tailored by session duration and skill level. Conclusions: Findings suggest that Black women with obesity who were previously insufficiently active and enrolled in an MVPA intervention are interested in participating in MSA. The results highlight participant preferences and practical strategies for designing and delivering culturally tailored mHealth.

United Kingdom

Designing Equity-Oriented National Data Infrastructure for Sport and Physical Activity

AUTHORS

Mann, S.[1], McReynolds, S.[2]

AFFILIATIONS

[1]*4GLOBAL*
[2]*Canadian Tire Jumpstart Charities*

Background Persistent inequities in sport and physical activity participation in Canada are shaped by structural barriers related to access, affordability, facility provision, and programme availability. Addressing these challenges requires system-level intelligence and the convening of multiple sectors around shared evidence, standards, and objectives to support coordinated, equity-oriented decision-making. Purpose To describe the design and governance of a Canadian national, equity-oriented data infrastructure for sport and physical activity, and to examine how multi-partner measurement systems can support system coordination, transparency, and equitable resource allocation. Methods We describe the development of a national data infrastructure governed through a cross-sector partnership convening national sport bodies (including the Canadian Olympic Committee and Canadian Paralympic Committee), charitable funders and delivery organisations (including Canadian Tire Jumpstart Charities), community organisations (Community Foundations of Canada), and academic partners. The system is underpinned by shared data standards, secure data governance, and equity-focused measurement principles, informed by international best practice in national physical activity surveillance. Results The resulting infrastructure provides a unified national evidence environment that reveals disparities in participation, access, affordability, and opportunity across demographic and geographic groups. Key capabilities include national benchmarking, geospatial analysis of infrastructure and access, local area profiling, and the development of a Canadian children and young people social value model to quantify health and wellbeing outcomes. A defined value-exchange model enables partners to contribute data in return for shared intelligence, strengthening collective learning, accountability, and trust. Conclusions Equity-oriented national data infrastructures developed through multi-partner governance can strengthen system coherence, improve visibility of participation inequities, and enhance accountability in national sport and physical activity systems. Implications for Policy and Practice Such infrastructures provide policymakers and system leaders with a shared evidence base to guide equitable planning, improve coordination, and support transparent, evidence-informed allocation of resources. Funding Canadian Tire Jumpstart Charities



Switzerland

Different activity types, different stories: Insights from multiple interview studies on adolescents' experiences and well-being

AUTHORS

Lenze, L.[1], Glauser, L.[1], Zurfluh, L.[1], Frahsa, A.[1]

AFFILIATIONS

[1]*University of Bern*

Background: In physical activity (PA) research, the "dose" (frequency, intensity, duration) is often the primary focus when investigating health outcomes. However, emerging evidence suggests that the context – including social, environmental, and setting-specific dimensions – is equally crucial, particularly for mental health and well-being. The PA type is one aspect that combines various contextual factors, yet research is limited in its investigation of adolescents' subjective experiences and well-being across different PA types. Purpose: This study explores how different PA types, characterized by varying contextual factors (e.g., indoor vs. outdoor, individual vs. team-based, organized vs. unorganized), are experienced by adolescents and shape their well-being. Methods: The research draws on data from multiple qualitative interview studies with Swiss adolescents, comprising semi-structured one-to-one interviews (total n = 26 interviews). Using reflexive thematic analysis, we contrast four distinct activity types with varying contextual profiles: Yoga (restorative, indoor; n = 6), Mountain Biking (nature-based, self-initiated; n = 7), Fitness (individualized, body-focused; n = 7), and Ice Hockey (organized, team-based; n = 6). Results: Ongoing analysis suggests that each PA type shapes well-being through different "contextual stories": depending on the activity type, different perceptions and experiences are reported. For example, mountain bikers report the relief of being outdoors and the motivating challenge of mastering a trail, while yoga practitioners report the importance of being in the moment facilitated through focused breathing. The full results from the finalized comparative analysis across all four activity types, including the role of contextual factors, will be presented at the conference. Conclusions: Contrasting distinct PA types demonstrates that adolescents' experiences and well-being are shaped by contextual configurations beyond traditional dose aspects of activity. Implications for Policy and Practice: Understanding the specific benefits of different PA types enables policymakers and practitioners to refine programs that align with adolescents' perspectives for targeted mental health promotion. Funding: Lindenhof Foundation Bern.

Brazil

Drowning Prevalence and Risk Profiles in a Coastal Region of Southern Brazil (2017–2025)

AUTHORS

Martins, C.[1], Martins, C.[2], Dos Santos, L.[3], Ribeiro, E.[2]

AFFILIATIONS

[1]*Universidade Federal do Paraná (UFPR)*
[2]*UFPR*
[3]*IFPR*

Background: Drowning is the process of experiencing respiratory impairment due to submersion or immersion in liquid. It is the third leading cause of unintentional injury deaths worldwide (7%), with 236,000 fatalities annually, according to the WHO. The high incidence in coastal regions is linked to aquatic and recreational activities. Understanding drowning-related factors is crucial for effective prevention strategies in the context of physical activity and health promotion. Purpose: To analyze the prevalence of drowning incidents and identify risk profiles in a coastal zone in southern Brazil. Methods: This descriptive study used secondary data from the official records of the Paraná Coast Fire Department in Brazil. We analyzed summer-season data (December–March) for 2017–2025. Variables included the number of drowning cases, degree of drowning, age, sex, swimming ability, and recreational physical activity at the time of the incident. Results: There were 9,540 drowning cases (64.4% were male), with a mean age of 24.6 ± 14.6 years (range: 1–82). By degree of drowning, 91.6% were classified as "Rescue only," 4.3% as "Mild," 1.4% as "Moderate," 1.3% as "Severe," and 1.4% as "Fatality." Swimming ability was assessed, with 60.5% classified as "Non-swimmers," 5.5% as "Basic knowledge," and 34.0% as "Regular swimmers." Regarding recreational physical activity, 88.8% were bathing only; 9.4% were engaged in water sports (e.g., board sports, kayaking, swimming, fishing), and 1.8% were unclassified. Conclusions: The study identified a significant number of drowning incidents (approximately 1,200 annually), predominantly rescues. However, severe and fatal cases remain concerning. Non-swimmers and skilled swimmers, who may exhibit overconfidence, are at heightened risk. Implications for Policy and Practice: These findings underscore the importance of lifeguard presence, swimming education, and ocean safety awareness initiatives to mitigate drowning risks in coastal areas.


Australia

Early Screen Time and Later Cardiometabolic Risk in Australian Children

AUTHORS

Booker, B.[1], Parr, E.[1], Conigrave, J.[2], Sherson, J.[1], Lonsdale, C.[1], Sanders, T.[1]

AFFILIATIONS

[1]*Australian Catholic University*
[2]*La Trobe University*

Background Screen time is a predominant sedentary behaviour in childhood and has been linked to adverse health outcomes, including cardiometabolic risk factors. However, evidence for these associations remains inconsistent. Understanding if these associations remain after adjusting for overall sedentary behaviour and moderate-to-vigorous physical activity is essential to inform early intervention strategies. The aim of this study was to examine associations between screen time trajectories in early childhood and health outcomes in late childhood, and see if associations are weakened by sedentary time and moderate-to-vigorous physical activity. Methods Data were drawn from Waves 3–6 (2008–2014) of the infant cohort and the Child Health CheckPoint (2015–2016) of the Longitudinal Study of Australian Children. Screen time was measured from ages 4-5 to 10-11 years every two years. Health outcomes, including cardiorespiratory fitness (VO2max), waist circumference, body mass index (BMI), and total body fat percentage, were measured at ages 11-12 years. Movement behaviors included actigraphy-measured sedentary time and moderate-to-vigorous physical activity. Results Among 1,825 children (49% female; mean age 12.0 [SD = 0.4]), higher screen time at 4-5 years was associated with lower cardiorespiratory fitness (B = -3.21, 95% CI -4.38 to -2.04), and higher waist circumference (B = 1.18, 95% CI 0.40-1.96), BMI (z-score; B = 0.16, 95% CI 0.06-0.26), and body fat percentage (B = 2.04, 95% CI 1.19-2.88). These associations remained after adjusting for sedentary time and moderate-to-vigorous-activity. No significant associations were observed between screen time and cardiometabolic biomarkers after adjusting for sedentary time and moderate-to-vigorous-activity. Conclusions Higher screen time in early childhood was associated with poorer fitness and greater adiposity in late childhood, independent of moderate-to-vigorous-activity and overall sedentary time. These findings highlight the importance of reducing sedentary screen time alongside promoting physical activity to support children’s long-term health.

South Africa

Exploring Community-Based Physical Activity Strategies for Non-Communicable Disease Prevention and Management in South Africa

AUTHORS

Simamane, M.[1], Mathunjwa, M.[2]

AFFILIATIONS

[1]*University of the Witwatersrand*
[2]*University of Zululand*

Non-communicable diseases (NCDs) remain a major global public health challenge, accounting for approximately 74% of all deaths worldwide, with South Africa experiencing a substantial burden where NCDs contribute to nearly 59% of total mortality. This burden is largely driven by modifiable behavioural risk factors, including physical inactivity, unhealthy dietary practices, and sedentary lifestyles. In response, community-based physical activity interventions have emerged as accessible and sustainable strategies for promoting health-enhancing behaviour change and reducing NCD risk. This narrative review critically synthesises evidence on the mechanisms, implementation strategies, and contextual determinants influencing the effectiveness of such interventions for NCD prevention and management in South Africa. Guided by the narrative synthesis approach of Popay et al. (2006) and informed by the "Embracing Emergence" framework, literature published between January 2006 and January 2026 was systematically identified from PubMed/MEDLINE, Scopus, Web of Science, and the Cochrane Library. The Social-Ecological Model was applied to analyse determinants and outcomes across individual, interpersonal, community, and policy levels. The findings demonstrate that community-based interventions, including structured exercise programmes, health education initiatives, and community health worker–led activities, improve physical activity participation and reduce key NCD risk factors. Their effectiveness is enhanced by strong social support, cultural relevance, and integration with primary healthcare services, while challenges such as socio-economic constraints, inadequate infrastructure, and limited health literacy continue to hinder optimal implementation and sustainability.


Australia

Feasibility of implementing a hospital-based physical activity program for children with chronic conditions

AUTHORS

Davey, E.[1], Willis, C.[2], Sivaramakrishnan, H.[3], Wood, F.[4], Valentine, J.[5], Walwyn, T.[6], Graciet, J.[7], Long, T.[8], Davis, E.[9]

AFFILIATIONS

[1]*Child and Adolescent Health Service*

[2]*The Kids Research Institute Australia*

[3]*Curtin University*

[4]*Perth Children's Hospital, Fiona Wood Foundation,6Burns Service of Western Australia, Murdoch, Australia 5School of Human Sciences, University of Western Australia,*

[5]*Perth Children's Hospital, The Kids Research Institute Australia, 3School of Medicine, University of Western Australia, Crawley, Australia*

[6]*School of Medicine, University of Western Australia, Crawley, Australia, Paediatric Department, Women's and Children's Services, Royal Hobart Hospital, Hobart, Tasmania, Australia*

[7]*Perth Children's Hospital*

[8]*Perth Children's Hospital, School of Biomedical Sciences, University of Western Australia, Crawley, Australia*

[9]*Perth Children's Hospital; The Kids Research Institute Australia, School of Medicine, University of Western Australia, Crawley, Australia*

Background: Chronic health conditions comprise a major proportion of childhood disease burden worldwide. Despite strong evidence for its benefits, physical activity is rarely integrated within paediatric health settings and remains underutilised as part of routine care. Purpose: This study aimed to evaluate the feasibility of implementing Move to Improve (M2I), an 8-week individualised physical activity intervention, in a paediatric tertiary health centre. Methods: A single-arm, pragmatic feasibility trial was conducted. The intervention was co-designed with children (cancer; cerebral palsy; post-burn injury; type 1 diabetes) and caregivers, and delivered by a multi-disciplinary allied health team in hospital and community settings. The RE-AIM framework was used to assess reach, effectiveness, adoption, implementation and maintenance outcomes. Results: Of the 118 children enrolled to date (52% females; 11.55 ± 3.17 y), 98 have completed M2I. Participants were referred from four participating departments, including Oncology (40%), Endocrinology (26%), Kids Rehab (23%), and Burns (11%). Participants attended 97% of weekly sessions and no adverse events were reported. 86% of parents reported M2I had helped their child move more, and 78% would recommend M2I to other families. Clinicians perceived family and community engagement as requirements to sustain program outcomes and delivery. Conclusions: Preliminary data suggests that implementing M2I is feasible, with considerations related to maintenance. The intervention is acceptable to children, families, and clinicians. Analysis of preliminary effectiveness and additional implementation data is forthcoming. Implications for Policy and Practice: Scale up of M2I across a further 8 departments is planned for 2026. This model of care may act as a blueprint for incorporating physical activity within paediatric healthcare settings nationally and internationally. Funding (if applicable): M2I has been made possible through funding from the Stan Perron Charitable Foundation and the Perth Children's Hospital Foundation.

Canada

Flipping the script: Examining the prevalence of youth who participate in no sports using COMPASS

AUTHORS

Szczepanowski, M.[1], Leatherdale, S.T.[1]

AFFILIATIONS

[1]*University of Waterloo*

Background Regular physical activity (PA) for youth is an essential movement behaviour. While there are multiple avenues for PA attainment, sport participation is one of the more predominant for youth. Evidence highlighting those who are not participating in sport at school and in the community is sparse. Purpose The objective of this study was to examine which youth are participating in no sports (intramural, varsity, and community) and how this impacts their attainment of the 24-Hour movement PA recommendation of 60 minutes of moderate-to-vigorous physical activity (MVPA) per day. Methods Youth data across Canada from the 2021/22 to 2024/25 school years collected in the COMPASS study were used. The prevalence of youth participating in no sport and at least one sport was examined in each year by sociodemographic characteristics. Generalized estimating equations were used to model the association between sport participation and meeting the PA recommendation. Results The prevalence of no sport participation ranged from 38.0% to 45.25% across all 4 years and was consistently higher among females, racialized, and gender-diverse youth. Logistic regression models demonstrated that youth who participated in no sport had significantly lower odds of meeting the PA recommendations. Significant interactions between sex and no sport and gender and no sport also emerged. Conclusions This study elucidates that while there are other modes of attaining daily MVPA, sports make a crucial contribution to meeting PA recommendations. Further, disparities amongst marginalized groups highlight the need for more inclusive sporting opportunities. Implications for Policy and Practice School boards and community sport organizations should prioritize the development of inclusive and low-barrier sport programming to reduce inequities in sport participation. This may include targeted outreach, culturally sensitive programming, and gender-affirming environments to improve attainment of PA recommendations. Funding Full details for COMPASS Study funding can be found online (https://uwaterloo.ca/compass-system/information-researchers).

Canada

Frailty and COVID-19 Infection Among Older Adults with Cardiovascular Disease: A Prospective Cohort Study

AUTHORS

Reed, J.[1], Hausen, M.[2]

AFFILIATIONS

[1]*University of Ottawa Heart Institute*
[2]*Acadia University*

Background: Frailty is common among older adults with cardiovascular disease (CVD) and is associated with increased vulnerability to infection and adverse health outcomes. However, the prognostic value of frailty for COVID-19 infection in this population remains unclear. Purpose: This study investigated the association between frailty and COVID-19 infection in older adults with CVD. Methods: This prospective cohort study included older adults with CVD from a large tertiary cardiovascular centre. Participants completed web-based surveys at baseline and monthly for 5 months. Frailty was assessed using the Tilburg Frailty Indicator (TFI), with scores ≥5 classified as frail. Surveys assessed demographics, cardiovascular diagnoses, and COVID-19 infection status. Descriptive statistics characterized participant characteristics, recruitment, and retention. Generalized estimating equations examined associations between frailty and COVID-19 infection across follow-up, adjusting for relevant demographic and clinical covariates. Results: Overall, 804 participants provided consent, and 790 (98%) completed the baseline survey. Mean age was 74.4±6.1 years, 35.3% were women, and 31.7% were frail. Common cardiovascular diagnoses included atrial fibrillation (42%), myocardial infarction (34%), and coronary artery disease (27%). Retention rates were 54% (month 1), 56% (month 2), 46% (month 3), 42% (month 4), and 46% (month 5). Among those without COVID-19 at baseline, 33 (4.4%) participants reported a confirmed COVID-19 infection during follow-up. In unadjusted analyses, frailty was not associated with COVID-19 infection (OR=0.75, 95% CI 0.49–1.12; p=0.161). Following adjustment for sex, cardiovascular diagnoses and comorbidities, and days since lockdown, frailty was independently associated with a 55% lower odds of COVID-19 infection (OR=0.36, 95% CI 0.16–0.81; p=0.01). Conclusions: In this cohort of older adults with CVD, frailty was independently associated with lower odds of COVID-19 infection after accounting for demographic and clinical characteristics. This unexpected finding warrants further investigation and may reflect differences in exposure patterns, protective behaviours, vaccination status, or other unmeasured factors.

Canada

From Intention to Implementation: Evaluating a Primary-Focused Physically Active Learning Workshop for Educators

AUTHORS

Pearson, E.[1], Marcotte, P.[1], Burke, S.M.[2]

AFFILIATIONS

[1]*Lakehead University*
[2]*Western University*

Background: Schools represent a critical setting for promoting physical activity (PA) and physical literacy during childhood. While Physically Active Learning (PAL) has demonstrated benefits for increasing in-school movement among children, less research has focused on educator-level mechanisms influencing implementation. Purpose: Drawing on validated behavioural theories, this study evaluates whether a single-session workshop can enhance primary teachers' behavioural intentions and self-efficacy to integrate PAL into classroom curriculum. Methods: This mixed-methods study uses a single-group pre-post design. Approximately 12 primary teachers will participate in a Professional Development (PD) Day hosted by a Northwestern Ontario school board. Workshop content was developed by Sport for Life, a Canadian organization dedicated to advancing physical literacy and lifelong PA participation. The session includes a 15-minute educational overview followed by 45 minutes of hands-on PAL activities designed for teachers to integrate into classroom settings. Although Sport for Life has delivered PAL workshops nationally, this is the first time this format has been formally evaluated. Questionnaires assessing teachers' behavioural intentions and physical literacy self-efficacy will be completed immediately before and after the workshop. Post-session surveys will include open-ended questions exploring perceived value, feasibility, and implementation intentions. Descriptive statistics and paired samples t-tests will examine changes across time; thematic analysis will be used for qualitative responses. Results: Recruitment is ongoing and data collection is scheduled for late February. It is anticipated that participants will demonstrate increased behavioural intentions and physical literacy self-efficacy immediately post-workshop, alongside qualitative reports of enhanced confidence and perceived feasibility. Conclusions: This study addresses a research gap by examining educator-level change processes within a real-world PD context while providing the first formal evaluation of a nationally disseminated PAL workshop. Implications for Policy and Practice: Findings will inform scalable professional learning models and efforts to embed movement within academic classrooms to support lifelong PA.

Colombia

Gender-sensitive public health strategies to promote active leisure time among university students: evidence from Bogotá

AUTHORS

Castro Jimenez, L.E.[1], Pinzón Porras, B.D.[2]

AFFILIATIONS

[1]*Universidad Pedagógica Nacional, Escuela Colombiana de Rehabilitación*

[2]*Escuela Colombiana de Rehabilitación*

Background: University students experience significant academic and social demands that limit leisure time and influence physical activity behaviours. Evidence suggests that gender differences may shape how leisure time is experienced, potentially contributing to inequalities in health outcomes. Understanding these disparities is essential for developing public health policies that promote active lifestyles in higher education settings. Objective: To analyse gender differences in leisure time use and physical activity among university students and propose evidence-informed public health strategies to support equitable health promotion policies in university populations. Methods: A cross-sectional quantitative study was conducted with 1,015 university students aged 18–26 years in Bogotá, Colombia. Data were collected using the Healthy Lifestyle Questionnaire (CEVS), focusing on leisure time and physical activity indicators. Bivariate analyses using odds ratios and Chi-square tests examined gender-based differences. Policy implications were explored from a public health and health promotion perspective. Results: Men reported greater enjoyment of leisure time (OR=1.85; $p<0.001$) and higher participation in leisure-time physical activity (OR=1.72; $p<0.001$) compared to women. Social recreational participation showed no significant gender differences. Findings highlight structural and sociocultural barriers that may restrict women's engagement in active leisure. Although physical activity was present, it was not perceived as a priority for most students, suggesting gaps in institutional and public health strategies targeting young adults. Policy implications: Results support the development of gender-responsive university and municipal policies that integrate active leisure into student wellbeing programmes. Potential strategies include: gender-inclusive access to recreational infrastructure, flexible scheduling policies addressing academic load, social-based physical activity initiatives, and integration of health promotion frameworks within higher education governance. These actions align with global physical activity promotion agendas and can contribute to reducing health inequalities in young adult populations. Conclusion: Gender differences in leisure time and physical activity among university students indicate the need for multisectoral public

Finland

Has the physical activity tracker market saturated among Finnish adolescents?

AUTHORS

Ng, K.[1], Hämylä, R.[2], Kokko, S.[2]

AFFILIATIONS

[1]*University of Limerick & University of Turku & Lithuanian Sports University*

[2]*University of Jyväskylä*

Background: Physical activity trackers (PAT) can be devices that record movement data. Ownership of PAT gives individuals a range of benefits, such as, behavioural prompts, results on activities, individual trends, sharing results with peers, amongst others. During adolescence, self-tracking may be an attractive product to own and use. Purpose: To analyse the trends of ownership of PAT among Finnish adolescents aged 11y, 13y, and 15y, between 2016 to 2024, and its association with PA. Methods: Repeated cross-sectional data from the Finnish School-age Physical Activity (F-SPA) biennial study in 2016 to 2024 were conducted on rates of ownership of PATs (mobile apps, smart watches). Binominal logistic regression analyses (reference = no ownership) were performed with study year and PA as independent variable, after controlling for gender, age, disability status, and family affluence. Results: There were increases in ownership of all PATs from 2016 (apps = 52%; watches = 27%) to 2024 (apps = 65%; OR = 1.2, CI =1.1-1.3; watches = 43%; OR = 1.9, CI = 1.7-2.1). Simply having PAT was associated positively with increased PA from 0-2 days to 3-4days (Apps: OR=1.6, CI = 1.5-1.8; watches: OR = 1.7, CI = 1.5-1.8). Conclusions: Although weekly use of apps continues to increase since 2016, weekly use of watches has not changed between 2022 and 2024 among Finnish adolescents. The market may have reached a saturation point for wearables, although apps ownership continues to grow. Implications for Policy and Practice: Regulations on mobile phone restrictions during school times limits the accuracy of the data from apps, which may increase the interest in wearables linked with apps. Alternatively, less use of apps for PAT may occur as the phone's sensor are not allowed to measure activity for a large portion of the day (i.e. school time). Investigations on PAT use are warranted.

United States

Influencing public attitudes around traffic crashes involving pedestrians: An experimental study using media framing

AUTHORS

Keliikoa, L.B.[1], Matsunaga, M.[1], Irvin, L.[2], Hansen Smith, H.[2], Menina, J.[2], McGurk, M.[1]

AFFILIATIONS

[1]*University of Hawaii at Manoa*
[2]*Hawaii State Department of Health*

Local media coverage of traffic crashes involving pedestrians is typically framed in a way that may bias reader perceptions and attitudes so that pedestrians are often blamed for their own deaths. This experimental study builds on previous research showing that variations in news story framing patterns shifted readers' assignment of blame for the crash and their preferred solutions for improving road safety. In an online survey of adult Hawai'i residents, participants (n=1,473) were randomly assigned to read one of four fictitious news articles [2 (crash scenario A or B) x 2 (typical or improved framing) design]. Participants then were asked to assign blame for the traffic crash and rate their support for several solutions to improve pedestrian safety. Differences in blame and support for solutions were examined using univariate analysis with post-hoc comparisons. Results show that both the crash scenario and type of framing mattered. For the scenario involving an older pedestrian in a marked crosswalk, blame for the crash did not significantly differ by framing condition. However, for the scenario involving a younger pedestrian crossing a rural highway not in a marked crosswalk, blame from the crash significantly differed based on framing condition: 52% blamed the pedestrian in the typical frame while 40% blamed the pedestrian in the improved frame ($p=0.01$). Participants strongly supported built environment solutions to improve pedestrian safety, but support was lowest among those assigned the younger pedestrian/typical frame story [$F(3, 804.23)=2.70$, $p=0.045$]. These findings confirm that media coverage has the power to influence how blame is assigned to pedestrians involved in traffic crashes and increase support for built environment solutions to improve pedestrian safety. In addition, findings suggest that media coverage exerts a stronger influence in specific types of crash conditions. Emphasizing the vulnerability of pedestrians may increase public support for safe systems improvements.

Netherlands

Lessons learned from a pilot single-case EMA study of real-time lifestyle determinants in multimorbid individuals

AUTHORS

Brummel, B.[1], Hoedjes, M.[1], Soedamah-Muthu, S.[1], Habibovic, M.[1]

AFFILIATIONS

[1]*Tilburg University, Medical and Clinical Psychology*

Background Promoting a healthy lifestyle, including physical activity, in individuals with chronic diseases may be more effective when tailored to the individual. This is particularly relevant for people with multiple chronic diseases, where personalized lifestyle approaches are more warranted. Understanding how lifestyle behaviors, including physical activity, are shaped by interacting determinants in real time within individuals may help identify which factors are most important for personalized lifestyle promotion. Purpose To explore the experiences and feasibility of a single-case pilot study exploring the real-time interrelation and relative importance of determinants of lifestyle behaviors in multimorbid individuals. Methods A pilot single-case design using ecological momentary assessment (EMA) and longitudinal real-time assessment (LRTA) will be conducted in three purposively sampled individuals with multimorbidity (cancer, cardiovascular disease, and/or type 2 diabetes). Over 14 consecutive days, physical activity and sleep will be continuously monitored using a smartwatch/accelerometer, with sleep cross-validated using the Consensus Sleep Diary, and dietary intake assessed using a 3-day food diary. Six random daily EMA-prompts will be sent via the m-Path smartphone application assessing determinants such as self-efficacy, physical limitations (e.g., fatigue), and the social and physical environment. Results Results will consist of feasibility and process indicators, including accelerometer wear-time, EMA response rate, experiences with frequency and duration of EMA and timing of nature and prompts. Key lessons learned from this pilot study will be presented. Conclusions This pilot study will provide insight into the feasibility and practical applicability of combining EMA and LRTA to study within-person determinants of lifestyle behaviors in individuals with multimorbidity. The lessons learned will inform future single-case study designs and support the development of personalized lifestyle interventions for this population. Implications for Policy and Practice Results will be incorporated in future study designs. Funding (if applicable) Not applicable

Brazil

Living Near Blue Spaces Modifies Associations Between Port Area Proximity and Heart Rate Variability

AUTHORS

Ostolin, T.[1], Oliveira de Jesus, M.[2], Zuniga Dourado, V.[2]

AFFILIATIONS

[1]*BP - A Beneficência Portuguesa de São Paulo*
[2]*Federal University of São Paulo*

Background: Residential environments influence cardiovascular health through harmful and health-promoting exposures. While port-area proximity has been associated with adverse environmental conditions, blue spaces may exert restorative effects on cardiovascular regulation. We investigated whether living near blue spaces modifies associations between port-area proximity and heart rate variability (HRV). Methods: This cross-sectional study included 855 asymptomatic adults (43±14 years; 60% women) from Santos, Brazil. Residential addresses were geocoded, and distances to the coastline and port area were calculated using Geographic Information Systems. Participants were classified into four groups according to median residential proximity to blue spaces and the port area: near blue spaces/far from port, near both, far from blue spaces/near port, and far from both (reference). HRV was assessed from 5-minute resting recordings using the natural logarithm of the root mean square of successive RR interval differences (lnRMSSD). Models were adjusted for age, sex, body mass index, accelerometer-based moderate-to-vigorous physical activity, smoking, hypertension, diabetes, education, and socioeconomic status. Results: Compared with the reference group, participants living near blue spaces and far from the port had higher HRV (B = 0.788; p = 0.003). Those living near both blue spaces and the port also showed higher HRV (B = 0.554; p = 0.047). Higher HRV also tended to occur among participants living far from blue spaces but near the port (B = 0.517; p = 0.058). Age and BMI were inversely associated with HRV, and a significant interaction between age and environmental group (p = 0.035) indicated that blue-space benefits declined with age. Conclusions: Living near blue spaces was associated with higher HRV regardless of residential port-area proximity, supporting the hypothesis that blue spaces modify the relationship between port-area environments and cardiac autonomic function. These findings highlight the contribution of blue spaces to cardiovascular health and support their incorporation into urban planning.

Brazil

Longitudinal Effects of a Physical Exercise Program for Older Adults: From 2019 to 2025

AUTHORS

Aparecida Calderão Spósito, L.[1], Neres da Silva, P.H.[1], Trapé, Á.A.[2], Kokubun, E.[1]

AFFILIATIONS

[1]*Department of Physical Education of Rio Claro at the São Paulo State University (UNESP), Brazil.*

[2]*School of Physical Education and Sport of Ribeirao Preto at the University of Sao Paulo (USP), Brazil.*

Introduction: Regular physical exercise has numerous health benefits, especially for the elderly population. However, few studies can follow the same participants in an intervention over long periods. Objective: To analyze and compare the results of physical capacity assessments in a physical exercise program for elderly individuals over a five-year period. Methods: Thirty-six elderly individuals participating in a university extension program in Brazil were selected. The participants had a mean age of 73.75 years (SD=6.04), 89% of whom were female. They participated in a physical exercise program with twice-weekly, 60-minute classes and had completed at least one of the four annual physical tests by the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD). The classes were generalized, offering participants the opportunity to perform exercises that work on different physical capacities, such as strength training in a gym or elsewhere and rhythmic activities. The data analyzed are from the period of 2019 (pre-pandemic), 2022, 2023, 2024 to 2025, using the ANOVA test for repeated measures in SPSS. 26, adopting $p<0.05$ for significance. Results: Over the five years, regarding flexibility capacity, the average results of the assessments varied consecutively in 56.83 (SD=9.3), 59.03* (SD=10.38), 57.65 (SD=10.18), 56.27 (SD=9.93) and 57.08 (SD=10.28) centimeters; (p=0.002); Coordination times ranged from 10.23* (SD=1.93), 8.95 (SD=1.81), 8.55 (SD=1.04), 8.76 (SD=1.59) and 8.61 (SD=1.12) seconds; (p=0.000); agility capacity ranged from 20.09* (SD=4.15), 22.39 (SD=3.41), 24.38 (SD=3.63), 24.05 (SD=4.15) and 23.44 (SD=4.26) seconds; (p=0.000) and aerobic endurance of 449.76 (SD=146.72), 461.65 (SD=195.56), 475.83 (SD=203.98), 508.77 (SD=168.22) and 464.54 (SD=242.25) seconds; (p=0.448); and strength levels between 31.88 (SD=4.83), 29.93 (SD=4.87), 31.80 (SD=4.86), 35.31* (SD=5.30) and 32.14 (SD=8.31) repetitions per minute; (p=0.000). Conclusion: The results indicated maintenance and/or improvement of the physical capacities of the elderly people participating in the community physical exercise program over the last five years.

Canada

Occupational fitness trends from 2007 to 2019 using the Canadian Health Measures Survey

AUTHORS

Prince, S.[1], Biswas, A.[2], Lang, J.[1]

AFFILIATIONS

[1]*Public Health Agency of Canada*
[2]*Institute for Work & Health*

Background: Physical activity (PA) benefits health partly through improved cardiorespiratory and musculoskeletal fitness, both strong predictors of morbidity and lifespan. Leisure-time PA is consistently linked to higher fitness, whereas evidence for occupational PA is mixed, with some studies reporting adverse associations. Given that fitness strongly influences health and work capacity, examining fitness trends across worker groups is essential to determine whether levels have changed over time, differ by occupation, and align with physical job demands. Purpose: To describe trends in fitness over time among workers in Canada. Methods: This study pooled six cycles of Canadian Health Measures Survey data (CHMS; 2007-2019) to assess trends in objectively measured fitness among working adults (N=9007; 18+ years; ≥30 hours/week). Handgrip strength (using a hand dynamometer), estimated cardiorespiratory fitness (using a submaximal Modified Canadian Aerobic Fitness Test) and sit-and-reach flexibility were collected. Linear regression examined crude trends in continuous fitness measures across cycles by age and sex. Results: In the most recent cycle of the CHMS (2017-2019), the majority of working adults had fitness levels associated with a lower health-benefit rating (handgrip strength=56.8%, cardiorespiratory fitness=64.9%, flexibility=64.3%). Across all age groups, over time, grip strength and flexibility remained relatively stable. Cardiorespiratory fitness declined over time among younger males aged 18-34 years (β = -0.05, p=0.0243), but remained stable in males 35+ years and females. Conclusions: Fitness levels among most working adults in Canada have remained relatively stable, yet they remain below levels associated with optimal health. Upcoming analyses will examine differences based on occupation and job-related physical demands. Implications for Policy and Practice: These findings offer important insight into the current fitness levels of Canadian workers, helping determine whether they are sufficient to meet the physical demands of work. This evidence can guide policies and workplace practices aimed at improving worker fitness and long-term health outcomes.

Canada

On the margins of movement: Physical activity participation in affectionate and gender minority adolescents

AUTHORS

Buckler, J.[1], Buckler, J.[1], Grant, G.[1], Sihoe, E.[1], Tremblett, J.[1], Styba-Nelson, K.[1], Ames, M.[1]

AFFILIATIONS

[1]*University of Victoria*

Background: Adolescent physical activity rates are at an all-time low, despite clear evidence of the mental and physical health benefits. Little research has examined how equity-deserving adolescents, particularly affectionate and gender minority (AGM) adolescents, engage in physical activity on a daily basis. Purpose: The purpose of this study was to compare the total and daily rates of physical activity participation of AGM and non-AGM adolescents. Methods: We employed an intensive longitudinal design, collecting daily physical activity via Fitbit Inspire 3, and daily surveys to determine influencing factors on physical activity behaviour over 14 days with adolescents aged 13-17 in Victoria, BC, Canada. We purposefully recruited one-third of our sample from the AGM community. Steps per day were compared between AGM and non-AGM adolescents using ANCOVA, controlling for age. Intensity differences and within-person daily variations will be compared using multi-level structural equation modelling. Results: Average steps per day were significantly higher (p=<0.001 in participants that did not identify as AGM (n=103, mean=10629, sd=3750) than participants that identified as AGM (n=64, mean=8992, sd=2877). Activity intensity differences and within-person daily variations of physical activity are in preparation. Conclusions: AGM adolescents are less likely to receive the health benefits of physical activity participation than their peers and may benefit from targeted physical activity interventions. Implications for Policy and Practice: Intervention development and programmatic changes may require input from AGM adolescents to increase uptake. Funding): Social Sciences and Humanities Research Council of Canada Insight Development Grant (#430-2022- 00031, PI Buckler) and Insight Grant (#435-2024-1420, PI Ames)

United Kingdom

Once Active, Always Active? A Meta-Analysis of Physical Activity Tracking across the lifespan

AUTHORS

Runacres, A.[1], Oldfield, S.[1], Franklin, Z.[1], Marshall, Z.[1]

AFFILIATIONS

[1]*Manchester Metropolitan University*

Background: Physical activity (PA) is a cornerstone of global public health initiatives, with policies designed on the assumption that active children become active adults. Whilst this belief is theoretically strong, empirical support remains limited. Purpose: This meta-analysis aimed to examine PA trajectories and stability across the lifespan. Methods: Five databases were searched using predefined criteria: (1) studies measured PA at least twice over a minimum one-year interval; (2) were published in English, and (3) reported PA in minutes·day-1 or provided correlation coefficients. All meta-analytical statistics were performed in R, with change in total PA, moderate-to-vigorous PA (MVPA), and daily steps calculated using weighted mean differences (WMD) and tracking assessed using correlation coefficients. Results: 148 unique studies including 144,645 participants were included. Total PA showed moderate tracking across the lifespan (R^2 = 0.32-0.40) decreasing annually by an average of -7.8 mins·day-1 (95% CI: -15.1 to -0.5). The weakest association was between childhood-adulthood (R^2 = 0.32). MVPA tracking was weaker, particularly from childhood to adulthood (R^2 = 0.21), and consistently declined annually by an average of -2.0 mins·day-1 (95%CI: -3.2 to -0.8). Step-count data revealed weak tracking from youth to adulthood (R^2 = -0.01) but moderate tracking in adulthood (R^2 = 0.52). No sex differences were apparent for any PA behaviour. Conclusion: With poor-to-moderate tracking from youth to adulthood and consistent declines in PA and MVPA, the findings highlight the limitations of early-life interventions alone and highlight the need for sustained, age-spanning strategies to effectively promote PA across the lifespan. Implications for Policy and Practice: These findings emphasise the need for policies which prioritise continuous, lifespan-oriented support systems, community infrastructure, and targeted interventions to maintain activity levels and mitigate against age-related declines in physical activity. Funding: None declared.

United Kingdom

Participant-reported outcomes of a national community-based exercise and education rehabilitation programme for joint pain

AUTHORS

Parmley, J.[1], France-Ratcliffe, M.[1], Michael, P.[2], Price, B.[1], Cable, N.T.[1], Doherty, P.[3], Yeowell, G.[4], Harwood, A.[1], Fatoye, F.[4], Heaton, S.[1], Innes, A.Q.[5], Deniszczyc, D.[5], Chandgothia, M.[5], Marshall, Z.A.[1]

AFFILIATIONS

[1]Institute of Sport, Manchester Metropolitan University, Manchester, UK

[2]Faculty of Health and Education, Manchester Metropolitan University, Manchester, UK; Nuffield Health, Epsom, Surrey, United Kingdom

[3]Department of Health Sciences, University of York, York, UK

[4]Department of Health Professions, Manchester Metropolitan University, Manchester, UK

[5]Nuffield Health, Epsom, Surrey, United Kingdom

Background Joint pain is a prevalent cause of reduced quality of life, and functional limitations. Exercise-based rehabilitation may be beneficial for people experiencing joint pain, yet limited large-scale evidence on outcomes exists. Purpose Describe changes in participant-reported outcome measures (PROMs) among people experiencing joint pain, participating in a national exercise rehabilitation programme, with and without a formal condition diagnosis. Methods An observational repeated-measures design was used to examine changes in PROMs collected at baseline and Weeks-12, 24, and 52. Measures included EuroQoL EQ-5D-5L, Musculoskeletal-Health Questionnaire (MSK-HQ), and Duke Activity Status Index (DASI). The intervention consisted of 12-week supervised (40-minutes exercise plus 20-minutes education twice weekly) followed by 12-weeks of independent exercise. Linear mixed-effects modelling assessed temporal changes and effects of diagnosis status. Results Data from 5,808 participants (age 64.6 ± 10.1 years; 81.6% female) across 114 sites were analysed; 82% had a formal diagnosis. Improvements were observed after 12-weeks of supervised exercise: EQ-5D-5L increased from 0.606 to 0.686 (ES=0.72 [95% CI=0.67-0.77]), MSK-HQ from 31.75 to 39.96 (ES=1.35 [95% CI=1.30-1.39]), and DASI from 32.80 to 37.89 (ES=0.70 [95% CI=0.65-0.75]). Improvements were largely maintained at 24-weeks (week 12 vs 24 ES range = -0.03-0.06), some regression was noted at 52-weeks (week 24 vs 52 ES range = -0.19- -0.10), though overall benefits remained. Participants without a diagnosis had higher baseline scores and showed greater improvements in MSK-HQ (0-24 weeks) (mean difference=0.80 [95% CI = 0.07-1.54]) and DASI (0-12 weeks) (mean difference=1.72 [95% CI=0.83-2.62]). Site location accounted for 3-5% of PROM variance. Conclusions Sustained improvements in PROMs were observed in participants, with greater gains among those without a formal diagnosis. Implications for Policy and Practice Nationally standardised exercise-based pathways can support people with joint pain at scale, with minimal variation between locations. Funding Jointly funded by Manchester Metropolitan University and Nuffield Health UK

Canada

Patient perspectives on the facilitators and barriers to physical activity promotion in primary care

AUTHORS

Nikolopoulos, R.[1], Bélanger-Gravel, A.[2], Nugus, P.[3], Gauthier, A.[4], Carver, T.[5], Filip, C.[6], Barnett, T.[7]

AFFILIATIONS

[1]*McGill University*

[2]*Department of Information and Communication, Faculty of Arts and Humanities, Université Laval*

[3]*Department of Family Medicine and Department of Oncology, Faculty of Medicine and Health Sciences, McGill University*

[4]*St. Mary's University Family Medicine Group*

[5]*Institute of Health Sciences Education, Faculty of Medicine and Health Sciences, McGill University*

[6]*Jardins-Roussillon University Family Medicine Group*

[7]*Department of Family Medicine, Faculty of Medicine and Health Sciences, McGill University*

Background Over half of Canadians do not meet physical activity (PA) guidelines. Primary care (PC) represents a key setting for PA promotion, as four in five Canadian adults report having a regular PC provider. Only one third of patients report receiving PA counseling, despite the availability of effective counselling interventions. Purpose To identify patient-reported barriers and facilitators to promoting PA within the context of PC. Methods This qualitative study included 14 physically inactive patients with or at risk of cardiometabolic disease, recruited from two University Family Medicine Groups in Quebec, Canada. Semi-structured interviews were conducted via videoconference. Interviews were recorded, transcribed verbatim, and analyzed using an inductive thematic analysis supported by NVivo. Preliminary Results Key individual, interpersonal and organizational factors influencing PA counselling in PC were identified. Barriers included reduced frequency of PC visits following the COVID-19 pandemic, competing priorities within time-limited appointments, limited access to and opportunities for PA, reluctance by patients to discuss PA, and gaps in knowledge regarding its health benefits. Facilitators included routine assessment of PA during PC visits and trust in family physicians as credible sources of guidance on healthy behaviours and benefits of PA. Conclusion Findings underline patients' perception of personal and systemic barriers to the integration of PA assessment and counselling in PC. Implementation efforts should focus on reducing barriers such as time constraints and improving patient engagement and knowledge about the health benefits of PA. Implications for Policy and Practice This study is foundational for the design and piloting of a PC intervention to promote PA tailored to patients' unique circumstances, which will contribute to the ongoing efforts to decrease the burden of noncommunicable diseases globally.

Funding This study was supported by the Canadian Institute of Health Research, as well as a Doctoral Training Scholarship from the Fonds de recherche du Québec.

United States

Physical Activity and Sedentary Behavior in Current and Recently Retired College Athletes Versus Nonathlete Controls

AUTHORS

Capin, J.[1], Wojcicki, B.[1], Acklie, P.[1], Larson, A.[1], Lennon, S.[2], Farquhar, W.[2], Smith, C.[1], Hunter, S.[3], Street, J.[1]

AFFILIATIONS

[1]*Marquette University*
[2]*University of Delaware*
[3]*University of Michigan*

BACKGROUND: Midlife former college athletes may have worse body composition, function, and other health outcomes than nonathletes, yet potentially mediating physical activity (PA) trajectories are not well quantified. PURPOSE: Compare PA and sedentary behavior (SB) in current and recently retired former college varsity athletes and nonathlete controls. METHODS: Participants (age 18-25 years; mean=21.4±1.8 years) were trichotomized: current college athletes (N=66; 38 Female, 28 Male); former college athletes (N=70; 37 Female, 33 Male); and nonathlete controls (N=64; 36 Female, 28 Male). All participants completed 14-day, continuous (24hr/day) activity monitoring using an activPAL4 accelerometer. Outcomes included step counts, activity score (metabolic equivalents of task [METs]), total SB, prolonged (>1hr bouts) SB, secondary lying, and seated transport; daily means were compared using ANOVA. RESULTS: Step counts differed across all groups with former athletes taking the fewest steps (current athlete: 11,541±2,800; former athlete: 9,180±2,415; control: 10,481±3,157; overall $p<0.001$). Former athletes also had the lowest activity scores (current athlete: 35.0±1.1; former athlete: 34.2±1.0; control: 34.7±1.3 METs; $p<0.001$). Current and former athletes had more secondary lying than controls (current athlete: 57±37; former athlete: 52±42; control: 38±31 minutes; $p=0.018$). There was a sex*group interaction($p=0.020$) for total SB: female athletes had 36.0 (95%CI: 2.2,69.8) minutes more total SB than male athletes($p=0.037$), and male former athletes had 44.2 (95%CI: 9.3,79.0) minutes more total SB than male current athletes($p=0.013$). Regardless of group, females had 16.6 (6.4,26.7) minutes more secondary lying($p=0.002$) and 17.5 (1.0,33.9) minutes less seated transport($p=0.037$) than males. No other interaction effects or sex differences existed. CONCLUSIONS: Former college varsity athletes were significantly less active than current athletes and nonathlete controls while continuing to engage in greater secondary lying than controls and high SB (~10hr/day). IMPLICATIONS: Substantial PA declines without concomitant changes to other lifestyle behaviors may place former college athletes at risk for long-term health challenges. FUNDING: NIH-DP5-OD031833


Sweden

Physical activity in girls with abdominal pain: Findings from an eight-month dance and yoga intervention

AUTHORS

Folkesson, M.[1], Särnblad, S.[2], Philipson, A.[3], Duberg, A.[3]

AFFILIATIONS

[1]*Division of Sport Science, School of Health Sciences, Örebro University, Sweden*

[2]*Department of Pediatrics, Faculty of Medicine and Health, Örebro University, Örebro, Sweden,*

[3]*Health Care Research Centre, Faculty of Medicine and Health, Örebro University, Örebro, Sweden*

Background: Functional abdominal pain disorders (FAPDs) are common in young girls, and are associated with depression, anxiety, and reduced quality of life. Physical activity (PA) represents a promising approach to managing FAPDs. Purpose: This study aimed to assess changes in daily physical activity (PA) and its interaction with pain in girls with FAPDs participating in a dance and yoga intervention shown effective in reducing pain. A secondary aim was to examine associations between abdominal pain and PA, and to describe PA levels and patterns in this group. Methods: In this randomized controlled study including girls 9–13 years old (n = 121), PA was assessed using accelerometers at baseline and at 8-month follow-up. Pain was assessed using a pain diary based on the Faces Pain Scale—Revised. Results: Daily PA was reduced at 8-month compared to baseline (effect of time: $p=0.008$), but with no significant difference between intervention and control groups (time x group: $p=0.3$). Changes in pain were not correlated to changes in PA. At baseline, significant associations were found between abdominal pain and time as sedentary ($r=0.31$, $p< 0.001$), time in light PA ($r=-0.21$, $p=0.03$) and total physical activity level (counts per minute) ($r=-0.20$, $p=0.04$), but not between pain and time in moderate to vigorous PA ($p\geq0.05$). Also, girls engaged in leisure time activities including a clear component of PA registered lower abdominal pain compared to girls reporting no activities with a clear component of PA (3.5±1.9 vs 4.6±1.9, $p=0.007$). Conclusion and Implications: In the strive to reduce the burden of abdominal pain in young girls with FAPDs, this study highlights the potential benefits of being physically active. Specifically, these data support interventions and clinical recommendations aiming to increase the amount of light PA in favor of sedentary time and engagement in leisure time activities including physical activity.

United States

Physical Activity Policy, Research, and Evaluation Network (PAPREN) Rural Hub: Collaboration across research and practice

AUTHORS

Wende, M.[1], Stroope, J.[2], Abildso, C.[3], Beattie, C.[4], Balis, L.E.[5], Umstattd Meyer, M.R.[6]

AFFILIATIONS

[1]*University of Florida*
[2]*Louisiana State University*
[3]*West Virginia University*
[4]*Texas A&M Institute for Advancing Health Through Agriculture*
[5]*Center for Nutrition and Health Impact*
[6]*Baylor University*

Background: Rural communities face well-documented challenges in promoting physical activity (PA), including geographic dispersion, travel distance, and fewer built-environment supports. The PA Policy, Research, and Evaluation Network (originally PAPRN: 2004-2014, PAPRN+: 2014-2020, PAPREN: 2020-present) is a national collaboration funded by the U.S. Centers for Disease Control and Prevention (CDC) that advances PA through policy and environmental approaches. The PAPREN Rural Hub is an extension of a rural-focused PAPRN adhoc-workgroup (2013-2014) that led to a standing Rural Active Living Workgroup during PAPRN+ and PAPREN cycles. This member-driven, cross-sector forum supports rural-relevant policy, research, and practice through shared learning and research–practice exchange. Program Delivery or Policy Components: The Rural Hub meets monthly to share research, practice experiences, funding opportunities, and policy developments. Member-guided workgroups meet between sessions to produce tools, briefs, data resources, and manuscripts. Conference meetings further strengthen collaboration and project development. Evaluation and Impact: The Rural Hub meets monthly and is open to any interested practitioners, policymakers, and researchers. Ten workgroups have been formed since 2023 around topics including rural and urban PA patterns, youth sports, food security and active transportation, extreme weather and PA, and community- and policy-level PA promotion. Workgroups have disseminated findings through international and national conferences, practice-focused presentations, and publications. Full details about the number of papers, presentations, and outlets for those products will be presented. Conclusions: PAPREN Rural Hub illustrates a scalable model for sustained research–practice collaboration focused on rural PA environments. Ongoing engagement helps generate innovative ideas, identify research gaps, and support cross-sector translation. Practical implications: Investing in structured practitioner–researcher networks can accelerate rural research-to-practice translation and better align evidence with implementation. Funding: PAPREN is supported by the Health Promotion and Disease Prevention Research Center cooperative agreement #U48DP006885, CDC, U.S. Department of Health and Human Services.

United States

Physical activity trajectories throughout the COVID-19 pandemic in southern Brazil: findings of the PAMPA cohort

AUTHORS

Gunnink, J.[1], Feter, N.[2], Caputo, E.[3], Luong, D.[4], Delpino, F.[5], Feter, J.[6], Rocha, J.[7], Silveira da Silva, L.[8], Schröeder, N.[6], Rodrigues Curi Hallal, P.[9], Rombaldi, A.[10]

AFFILIATIONS

[1]*University of Southern California*

[2]*Human and Evolutionary Biology Section, Department of Biological Sciences, University of Southern California, CA, USA; Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil*

[3]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil*

[4]*Human and Evolutionary Biology Section, Department of Biological Sciences, University of Southern California, CA, USA*

[5]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil; Postgraduate Program in Dentistry, Universidade Federal de Pelotas, Rio Grande do Sul, Brazil*

[6]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil; Postgraduate Program in Epidemiology, Universidade Federal do Rio Grande do Sul, Rio Grande do Sul, Brazil*

[7]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil; Postgraduate Program in Health Sciences, Federal University of Rio Grande, Rio Grande do Sul, Brazil*

[8]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil; Postgraduate Program in Epidemiology, Universidade Federal de Pelotas, Rio Grande do Sul, Brazil*

[9]*Department of Health and Kinesiology, University of Illinois Urbana-Champaign, Urbana- Champaign, IL, USA*

[10]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil; Postgraduate Program in Physical Education, Universidade Federal de Pelotas, Rio Grande do Sul, Brazil*

BACKGROUND The COVID-19 pandemic widened social inequalities in physical activity levels, particularly in low- and middle-income countries. PURPOSE To examine trajectories and inequalities in leisure-time physical activity among adults during the COVID-19 pandemic. METHODS This study used data from five follow-up waves of the Prospective Study About Mental and Physical Health in Adults (PAMPA) cohort (Rio Grande do Sul, Brazil), conducted between June 2020 and June 2023. Leisure-time physical activity and socio-demographic characteristics were collected using an online questionnaire. Physical activity was measured continuously (minutes per week) and analyzed dichotomously, with ≥150 minutes per week classified as active. We assessed inequalities in physical activity according to demographic and socioeconomic factors using the slope index of inequality and the concentration index. Physical activity trajectories were assessed using latent growth curve analysis. RESULTS Proportion of active participants in leisure-time increased from 23.3% (95% CI: 21.6–25.1) to 39.2% (95% CI: 37.3–41.1), between June 2020 and 2023. Men were more active than women at all follow-ups. Participants with lower educational attainment, as well as those of Black and Mixed race, were less active when compared to those with higher education and White participants, respectively. Educational inequalities increased from December 2020 (SII: -13.4; CIX: -7.8) to June 2023 (SII: -16.6; CIX: -7.0). Three physical activity trajectories were identified: “highly active” (4.6% of the sample), “sufficiently active” (28.0%), and “inactive” (67.5%). Individuals who were active at the beginning of the pandemic were more likely to remain active across all follow-ups. CONCLUSION Although physical activity levels increased after the initial stages of the COVID-19 pandemic, they remained low for most participants, especially among historically less privileged groups: women, non-White individuals, and those with less education. IMPLICATIONS FOR POLICY AND PRACTICE Post-pandemic physical activity strategies should prioritize equity by improving access, opportunities, and supportive environments for disadvantaged populations.

United States

Physical Activity, Sleep Quality, and Quality of Life in Visually impaired Adults

AUTHORS

Yli-Piipari, S.[1], Frederic, G.M.[2], Kirk, N.[2]

AFFILIATIONS

[1]*University of Georgia*
[2]*UGA*

Background: The World Health Organization recommends engagement in regular physical activity (PA) to improve quality of life (QOL), including sleep quality. While the relationship between PA and sleep quality has been shown in adults without visual impairments, it is likely that visual impairment moderates this relationship. Purpose: This study aimed to explore relationships between objectively-measured PA, sleep quality, and QOL in visually impaired adults with no usable vision (NUV) and some usable vision (SUV). Methods: This cross-sectional study included 94 participants (Mage 48.30±16.11 years; 34.8% male, 64.1% female) classified as NUV (67%) or SUV (34%). PA was assessed via waist-mounted accelerometers; sleep quality (Pittsburgh Sleep Quality Index) and QOL (World Health Organization Quality of Life questionnaires) were measured using validated self-report instruments. Results: Although mean differences suggested that individuals with SUV exhibited healthier habitual PA than those with NUV, these differences did not reach statistical significance using Bonferroni-corrected independent t-tests ($p \leq .017$). No between-group differences were found in global sleep quality. However, individuals with SUV reported higher social QOL ($t[92]=3.13$, $p=.001$, $d=.71$) and environmental QOL ($t[92]=3.22$, $p=.016$, $d=1.35$) than those with NUV. Sensitivity analyses indicated that the sample was powered to detect critical t-values ≥ 1.99 and effect sizes ≥ 0.81 (Cohen's d). Conclusions: Analyses suggest that adults with SUV may have healthier habitual PA and better QOL than those with NUV. Well-powered studies are needed to more fully identify the barriers that limit PA and QOL among individuals with NUV. Practical Implications: Targeted supports, such as specially designed PA programs, may help promote PA engagement and improve QOL for visually impaired adults, particularly those with NUV.

Germany

Quantitative Analysis of User Metrics on a Digital Platform for Promoting Student Physical Activity

AUTHORS

Loewe, A.[1]

AFFILIATIONS

[1]*IST-Hochschule für Management*

Background: Digital interventions offer low-threshold access to promoting physical activity. However, there is currently a significant lack of longitudinal studies on the impact and, in particular, the use of digital interventions (Bi et al., 2024; Lattie et al., 2019). Purpose: To gain a deeper understanding of its application, this study examines the usage metrics of a digital platform offering measures to promote physical activity among students. Methods: Over a period of two years, various usage metrics (e.g. number of logins, page views of intervention formats and duration of the usage) were assessed using Matomo. Results: The platform was mostly used only once with an average visit duration of about four minutes, while the stay of new visitors declined over time. Returning users showed higher activity per visit and increasingly used new intervention formats in addition to classic course videos, such as knowledge transfer offerings or everyday challenges. Conclusions: The number of page views indicates general interest among students, limited by a low return rate and short dwell time. Possible explanations are time-related constraints, an increasing preference for short digital formats, as can also be observed in other social media, and a desire for analog measures in the already highly digitized everyday life of the target group. Implications for Policy and Practice: Digital approaches are only suitable to a limited extent as a stand-alone measure to promote physical activity among students. Integrating them into further measures, such as designing campuses to promote physical activity and encouraging physical activity in courses, appears to be just as sensible as user-centered participatory development in order to meet the requirements of the target group.

Japan

Reconceptualizing Physical Activity Advocacy as a Dialogical Professional Competency: A Practice-Based Integrative Framework from Japan

AUTHORS

Egawa, K.[1]

AFFILIATIONS

[1]*Tokyo Kasei Gakuin University*

Background Advocacy is increasingly recognized as a key mechanism for translating evidence on physical activity into policy and practice. However, most existing advocacy frameworks are derived from Western policy contexts and emphasize adversarial lobbying, often overlooking the integrated roles of health professionals, local governments, and inclusive sport systems. Consequently, theoretically grounded models that reflect practice-based advocacy in consensus-oriented societies, such as Japan, remain limited. Purpose This study aimed to develop a theoretically grounded framework of physical activity advocacy rooted in professional practice. By integrating perspectives from physical activity promotion, public health nutrition, disability inclusion, and planetary health, the framework seeks to reconceptualize advocacy as a core professional competency and provide a transferable model for education and policy engagement. Methods Using a practice-informed conceptual research approach, evidence from physical activity science, public health nutrition, disability studies, and policy advocacy literature was synthesized. Insights from administrative dietitians, community-based sport initiatives, and inclusive physical activity programs were analytically integrated. The framework was theoretically positioned in relation to the Social Ecological Model and policy cycle theories. Results A three-layer advocacy framework was developed, comprising: (1) individual professional competencies, including evidence translation, ethical reasoning, and narrative framing; (2) organizational and community-level coordination through intersectoral collaboration, inclusive design, and capacity building; and (3) system-level alignment with policy processes, equity goals, and planetary health principles. Advocacy is conceptualized not as oppositional lobbying but as a continuous, dialogical process embedded in everyday professional practice. Conclusion This study presents a practice-based theoretical framework that reconceptualizes physical activity advocacy as a dialogical, non-adversarial professional competency. By extending existing advocacy theories beyond Western policy models, the framework offers a transferable approach for global physical activity promotion and aligns with ISPAH's mission to bridge evidence, equity, and action.

Canada

Screen-related Parental Practices and Children's 24-Hour Movement Behaviours in Urban Mexico

AUTHORS

Sanchez, A.[1], Ortiz Hernández, L.[2], Lévesque, L.[1]

AFFILIATIONS

[1]*Queen's University*
[2]*Universidad Autónoma Metropolitana*

Background: In Mexico, 82% of school-aged children exceed two hours of daily recreational screen time, and many do not meet recommended movement guidelines across the 24-hour day, including physical activity (PA) and sleep. Excessive screen exposure has been linked to higher sedentary time, poorer sleep quality, and lower PA. Screen-related parenting practices such as limit-setting and permissiveness represent potentially modifiable influences on children's movement behaviours. However, most existing evidence derives from high-income countries, limiting contextual relevance for Latin American populations. Purpose: To examine associations between screen-related parenting practices and 24-hour movement behaviours among 8–12-year-old children in urban Mexico. Methods: A cross-sectional study of 131 parent-child dyads recruited from a public elementary school in northern Mexico City was conducted. Parents completed a validated 7-item questionnaire assessing screen-related parenting practices. Children wore wrist accelerometers 24 h/day for 7 consecutive days to assess sedentary time, PA, and sleep efficiency. Multivariable linear regression models were conducted separately for each movement behaviour and adjusted for age, sex, BMI-for-age, and socioeconomic status. Results: In adjusted models, permissive television ($B = –2.22$, $p < .01$) and cellphone practices ($B = –1.56$, $p < .01$) were associated with lower sleep efficiency. Television limit-setting was associated with higher sedentary time ($B = 186.21$, $p < .05$); no significant associations were observed for cellphone limit-setting. No significant associations were observed between parenting practices and PA. Conclusions: Associations between screen-related parenting practices and children's 24-hour movement behaviours were device-specific and most consistently observed for sleep efficiency. Both permissive and limit-setting practices were linked to unfavorable indicators, underscoring the complexity of screen-related parenting influences. Implications for Policy and Practice: Parents may require support beyond broad screen-use recommendations. Further research is needed in Mexico to examine device-specific parenting practices and their differential associations with sleep, sedentary behaviour, and PA.

United States

Strengthening Community Capacity to Deliver Evidence Based Family Healthy Weight Interventions

AUTHORS

Hill, J.[1], Heelan, K.[2], Bryce, A.[2], Michaud, T.[3], Estabrooks, P.[1]

AFFILIATIONS

[1]*University of Utah*
[2]*University of Nebraska Kearney*
[3]*University of Nebraska Medical Center*

Background: Building Healthy Families (BHF), a CDC-recognized family healthy weight program (FHWP), was packaged as an online train-the-trainer resource to support the community-based implementation team (CIT) in adopting, implementing, and maintaining BHF delivery in rural communities. The purpose of this presentation is to report CIT dissemination and implementation outcomes for communities that had access to the online resource alone (BHF-PO) or in combination with an action learning collaborative (BHF-LC). Methods: A request-for-applications (RFA) strategy was used to identify and recruit rural communities with a priority to address childhood obesity and partnerships to recruit for, and deliver, BHF. CITs were matched on readiness for implementation and assigned to BHF-PO (n=3) or BHF-LC (n=4). CIT implementation fidelity was measured using direct observation. Qualitative interviews were also conducted with CITs to identify barriers and facilitators to CIT adoption and implementation. Results. The seven communities assembled community-based implementation teams (CITs), with n=32 members across communities (BHF-LC n=17; 4 CITs; BHF-PO n=15). BHF-LC communities demonstrated higher implementation fidelity during the core sessions (90.6% vs. 75.8%, p = 0.076) and more contact hours (17.8 vs. 14.8, p = 0.096). Overall CIT ratings of the evidence related to BHF and context were high at both baseline and 12 months (>4/5) but did not differ by condition. However, differences over time were found in perceptions of facilitation (BHF-PO 4.8 to 4.6; BHF-LC 4.5 to 4.1, p<.05) and CIT perceptions of the resource package's relative advantage, compatibility, trialability, and observability (p's<.05) after 12 months compared to BHF-PO communities. Conclusion: Providing a packaged, easy-to-use online resource for training and program implementation is necessary but may not be sufficient to achieve high implementation fidelity. Community-based implementation teams benefited from additional training and learning opportunities through the facilitated action-learning collaborative, highlighting a potential mechanism to strengthen community capacity among local delivery teams.

Australia

Supporting and upskilling health professionals to promote physical activity: the PROMOTE-PA implementation-effectiveness trial

AUTHORS

Baldwin, J.[1], Purcell, K.[1], Dawson, J.[1], Savage, R.[1], Hassett, L.[1], Tiedemann, A.[1], Wang, B.[1], Pinheiro, M.[1], Haynes, A.[1], West, K.[2], Sherrington, C.[1]

AFFILIATIONS

[1]*University of Sydney*
[2]*Sydney Children's Hospitals Network*

Background Health professionals face numerous barriers to implementing physical activity (PA) promotion. Purpose To collaboratively develop and evaluate support for outpatient clinicians to routinely deliver PA promotion. Methods PROMOTE-PA collaborative development: Focus groups with outpatient clinicians identifying barriers and collaborative solutions to PA promotion. PROMOTE-PA implementation-effectiveness trial: Thirty-two outpatient teams were randomised to receive implementation support, tailored to each team, immediately (intervention) or after a delay (control). Implementation dose and reach were collected (intervention group only) via study documents. Acceptability was collected using a 5-point Likert scale. Results PROMOTE-PA collaborative development: Ninety-eight clinicians highlighted clinical demands, patient factors and limited information as major barriers. Collaboratively developed strategies included education and training, expert mentors, community PA referral and clinical champions. A website with training and resources plus a searchable PA directory was developed. PROMOTE-PA trial: Thirty clinical teams (n=156 clinicians, 75% female, 75% physiotherapists) were recruited. Data are available for 10 of 14 intervention teams (n=50 clinicians). All 10 teams received education and training, expert mentors and community PA referral. Implementation dose: average of 4 support sessions (9.6 hours) delivered per team. Implementation reach: teams covered diverse clinical areas including musculoskeletal, cardiopulmonary geriatric, paediatric neurological, and pain. Acceptability: most (n=31, 82%) agreed/strongly agreed that support improved their knowledge about how to have PA conversations with patients; 79% (n=30) agreed it was easier to identify PA opportunities. Data collection will conclude in December 2026. Conclusions Tailored approaches to support PA promotion are acceptable and can be adapted to different clinical contexts and patient populations. Practice points - Implementation strategies to support outpatient clinicians in delivering PA promotion have been collaboratively developed - Strategies include education and training, experts and clinical mentors, tailored community referral strategies and clinical champions - These support strategies are being evaluated in a cluster-randomised controlled trial. Funding NHMRC


Australia

Supporting people with cerebral palsy and other neurological disabilities to participate in sport and recreation

AUTHORS

Sherrington, C.[1], Sherrington, C.[1], West, K.[1]

AFFILIATIONS

[1]*University of Sydney*

Background Physical activity guidelines highlight the benefits of physical activity for people with disabilities but people with disabilities report additional barriers and difficulty finding welcoming opportunities. The Cerebral Palsy Sporting and Recreation Association of NSW (CPSARA) seeks to address these barriers through events, practical advice, role models and mentoring, and providing a supportive network for participants and families. CPSARA is led by a volunteer committee with experience in sport and recreation for people with cerebral palsy and other neurological conditions including as participants, family members of participants, as providers of programs, and as health professionals. Program Delivery or Policy Components CPSARA activities include social sport events, sharing information about local opportunities and competitions, individualised advice, a newsletter, social media that celebrates events and member achievements, and advocacy and assistance for mainstream sporting organisations in catering for people with disabilities. Evaluation and Impact Informal feedback from program participants and members highlights the importance of role models, a sense of belonging, and practical information sharing in assisting people with disabilities to undertake ongoing community-based physical activity through sport and recreation. Case studies highlight the life changing experiences that have been facilitated for members. Conclusions Local organisations catering for specific populations can play a crucial role in supporting ongoing evidence-based physical activity participation for people with disabilities. Social media can play a positive role in connecting geographically dispersed individuals. Health professionals can play a role in facilitating links between health services and community activities. Practical implications Ongoing investment in organisations that offer specialised support and networking is important for people who face additional barriers to being more active. Funding (if applicable) CPSARA NSW is funded by the NSW Office of Sport as a State Sporting Organisation for People with Disabilities.

United Kingdom

Sustaining mobility in later life: preliminary qualitative findings from the ACE peer-volunteering intervention

AUTHORS

Stathi, A.[1], Davies, A.[2], Chatwin, K.[3], Szekeres, Z.[4], Hawley-Hague, H.[2], Crone, D.[4], Harper, A.[5]

AFFILIATIONS

[1]*University of Birmingham*

[2]*University of Manchester, Manchester, United Kingdom*

[3]*University of Birmingham, Birmingham, United Kingdom*

[4]*Cardiff Metropolitan University, Cardiff, United Kingdom*

[5]*Chartered Association of Sport and Exercise Sciences (CASES), United Kingdom*

Background: The Active, Connected, Engaged (ACE) trial was a two-arm pragmatic RCT (n=528; mean age 77.5) that evaluated a six-month peer volunteer-led intervention promoting physical and social activity among people at risk of mobility disability. Participants were randomised to intervention and control groups across four UK sites. At 18 months, ACE delivered clinically meaningful improvements in lower limb function. However, little is known about the mechanisms that support these longer-term improvements. Purpose: To explore how autonomy, competence and relatedness, as described in Self-Determination Theory, shape participants' motivation and the longer-term maintenance of physical function. Methods: Semi-structured interviews conducted with 30 intervention participants across all study sites, 12 months post-intervention. Participants were aged 65- 89 years (mean 78.0), including 18 women, with a mean baseline physical function score (Short Physical Performance Battery (SPPB)) of 6.8. Interviews were audio-recorded, transcribed verbatim and checked for accuracy. Data were analysed thematically using inductive and deductive coding within the Framework method. Findings are preliminary, with analysis ongoing. Results: Participants valued ACE's autonomy-supporting approach, particularly the opportunity to choose activities that matched their interests and abilities. Many reported increased confidence and a stronger sense of capability to engage in physical and social activities. Supportive relationships with peer-volunteers and social networks were central to engagement. Continuing engagement in activity beyond the intervention period was common and was supported by established routines, increased motivation and social connections. Sustained participation was influenced by health, mobility limitations and access to local opportunities. Conclusions: Sustained mobility following ACE appears to be driven by interacting psychological, social and contextual factors. Findings highlight the importance of autonomy support, habit formation, and social connectedness for sustaining mobility in older adults. Implications for Policy and Practice: These insights may inform the optimisation and wider implementation of community-based interventions across diverse settings.

United States

Systems-Based Diagnostic of Physical Activity Implementation and Engagement in Head Start Networks

AUTHORS

Soria, I.[1], Alkakooz, A.[2]

AFFILIATIONS

[1]*Arizona State University*
[2]*Author*

Background: Early childhood education (ECE) networks lack access to equitable physical activity (PA) opportunities due to various bottlenecks. Purpose: To diagnose resource, delivery, and engagement failures in an 18-site Head Start network formed from a closed-loop systems diagnostic framework. Methods: This study drew on interviews from 74 participants (n=74), consisting mainly of parents with teachers and staff across 18 Southwest Human Development sites who were 70.0% Hispanic/Latino, with 16.0% Black/African American. Data collection occurred during drop-off and pick-up times to explore participant views on program design, equitable access, organizational readiness, and cultural responsiveness. Results: While 47.0% of participants (n=70) strongly agreed that increasing PA is desirable and feasible, three significant issues emerged. 1. Resource bottlenecks are attributed to a lack of equipment and recreational space and, combined with transportation and cost limitations, restrict program entry and continuation. 2. Delivery constraints, including heavy staff workloads and scheduling conflicts, limited the capacity to offer inclusive PA. 3. Engagement friction arose from low program awareness and language barriers, with weak family-staff connections highlighting the disconnect. Conclusions: A three-phase roadmap can be considered to fix operational constraints and improve communication. Short-term, immediate multilingual outreach must be achieved to address program awareness. Intermediate steps should focus on providing equipment and adjusting schedules in order to alleviate staff workload. Long-term investment into infrastructure and community partnerships would ensure sustainability despite present barriers. This framework guides ECE facilities in developing culturally responsible solutions for low-income children. Implications for Policy and Practice: For ECE programs to achieve inclusive, sustainable PA, administrators and community members must commit to ongoing staff development and equipment investment while using multilingual materials to strengthen family-staff connections and remain accessible to low-income families.

Funding (if applicable): Supported by Arizona State University School of Social Work SSW SPARK Seed Grant Program.

United States

Testing a Heat Acclimatization Intervention for Safe Summer Physical Activity of Children

AUTHORS

Murray, T.[1], Williams, S.[2], Malbari, A.[2], Chen, B.[3], Lanza, K.[3]

AFFILIATIONS

[1]*The University of Texas Health Science Center at Houston*

[2]*The University of Texas at Austin, Dell Medical School, Austin, Texas, USA*

[3]*The University of Texas Health Science Center at Houston, School of Public Health, Austin, Texas, USA*

Background: As extreme heat becomes more frequent and intense worldwide, it poses a barrier to children's physical activity (PA). Heat acclimatization schedules (i.e., a systematic, gradual increase in heat exposure and PA) can improve heat tolerance in adults. Still, we know little about how such approaches modify children's PA patterns. Purpose: To examine associations between extreme heat, children's moderate-to-vigorous physical activity (MVPA), and a heat acclimatization schedule during summer. Methods: We block-randomized children (ages 7-12 years; n = 31) from 21 families in Austin, Texas, to a 10-day heat-acclimatization schedule (n = 16) or a regular activity schedule (n = 15) from July 1st to August 15th. The intervention consisted of 10 consecutive days of structured outdoor play beyond daily routines (e.g., walking, tag), progressing from 45 minutes of low-to-moderate PA to 60 minutes of MVPA. Children wore accelerometers for 4–7 days at baseline and post-intervention. Temperature data originated from the NOAA Integrated Surface Database. We estimated within-child associations between daily temperature and MVPA with linear mixed-effects models. We assessed the potential moderating effect of the heat acclimatization schedule using a difference-in-differences mixed-effects model. Results: Across study days, the average daily maximum was 34°C. The mean MVPA ranged from 44 to 51 min/day across groups. Higher temperatures were weakly associated with lower MVPA (−0.18 min/day per 1°C; 95% CI: -1.22, 0.86), and the difference-in-differences estimate saw a modest increase in MVPA in the intervention group (+2.1 min/day; 95% CI: -3.8, 8.0). Neither association was significant. Conclusions: Daily average temperatures did not explain variation in children's MVPA. Implications for Policy and Practice: Findings inform behavioral strategies to support children's PA in a warming climate. Future studies should consider within-day temperature-PA relationships while adjusting acclimatization components that promote MVPA. Funding: Dell Med/Dell Children's Pediatric Research Grant Program provided study support.

France

The association between recognition of a French social marketing campaign and parental support is mediated

AUTHORS

fassier, P.[1], Tano, M.[1], Escalon, H.[1], Rostan, F.[1], Serry, A.J.[1], Tessier, D.[2], Fassier, P.[1]

AFFILIATIONS

[1]*Santé publique France*
[2]*Université de Grenoble*

Background: Given the low proportion of adolescents meeting physical activity guidelines, Santé publique France launched in September 2022 and re-broadcast in September 2023 and September 2024, a social marketing campaign, aimed at strengthening parental support related to physical activity. Purpose: The objective of this study was to analyze the associations between campaign recall and parental support, and to assess whether attitude toward adolescents' physical activity, attitude toward parental support and self-efficacy toward parental support were mediators of this association. Methods: Between July 2022 and October 2024, 4,005 parents of adolescents aged 11-14 years were recruited by socio-demographic quotas through a national panel and completed a questionnaire about there campaign recall, parental support, attitudes and self-efficacy. Analyses focused on the 3,003 parents who participated in at least two waves including baseline. Association between campaign recall and attitudes and self-efficacy were assessed using linear regression models as well as the mediating role of attitude and self-efficacy in the associations between campaign recall and parental support controlling for sociodemographic characteristics. Results: In this study, campaign recall was not associated with parental support ($p=0.2$). Parents who recalled the campaign had more frequently positive attitude toward parental support ($\beta=0.142$, $p=0.007$), and higher self-efficacy ($\beta=0.147$, $p=0.005$), however no association with attitude toward adolescents' physical activity was found ($p=0.3$). Attitude toward parental support, self-efficacy and attitude toward adolescents' physical activity were all significantly and positively associated with parental support (all $p<0.05$). Attitude toward parental support mediated the relation by 28%, self-efficacy by 50%. Conclusion: The association between campaign recall and parental support was totally mediated by attitude toward parental support and self-efficacy toward parental support as we hypothesized. This study confirms the needed to work upstream of the intervention to identify the most appropriate conceptual framework in order to be as effective as possible in our campaigns.



Saudi Arabia

The Financial Impact of Resistance Training on Work Productivity Among Healthcare Employees in Saudi Arabia

AUTHORS

AlAbandi, Z.[1]

AFFILIATIONS

[1]*Johns Hopkins Aramco Healthcare*

Title The Financial Impact of Resistance Training on Work Productivity Among Healthcare Employees in Saudi Arabia Background: Healthcare employees face long hours, shift work, high workloads, and occupational stress that may impair well-being and productivity. Evidence linking resistance training specifically with occupational outcomes in Saudi healthcare remains limited. Purpose: To examine associations between resistance training participation and frequency and work productivity loss, performance, absenteeism, presenteeism, and stress among healthcare employees in Saudi Arabia. Methods: This quantitative cross-sectional study used an anonymous online questionnaire distributed in April 2026. Following eligibility screening, 125 healthcare employees were included (44 resistance-training participants; 81 non-participants). Measures included training behaviour, health-related absenteeism and presenteeism, self-rated performance, perceived performance, stress, and four-week productivity-related financial loss. Descriptive statistics, Pearson correlations, Welch's t-tests, and hierarchical multiple regression adjusting for demographic, occupational, and lifestyle factors were used. Results: Resistance-training participants reported slightly higher perceived performance and lower stress than non-participants, but adjusted differences were not statistically significant. Among participants with training-frequency data, frequency was positively correlated with self-rated performance ($r=0.360$, $p=.006$). Binary resistance-training participation did not significantly predict perceived performance ($\beta=0.27$, $p=.091$), presenteeism cost ($\beta=-43$ SAR, $p=.883$), or total financial productivity loss ($\beta=862$ SAR, $p=.099$). Absenteeism cost was higher among resistance-training participants ($\beta=905$ SAR, $p=.021$), reflecting higher income and therefore greater cost per absent day rather than more absent days. Conclusions: More frequent resistance training was associated with better self-rated work performance, whereas participation alone was not associated with lower productivity loss. Cross-sectional findings do not establish causality. Implications for Policy and Practice: Healthcare organisations may consider accessible workplace resistance-training initiatives as part of employee well-being strategies, while evaluating outcomes through longitudinal or controlled studies with objective productivity measures. Funding: No external funding.

Canada

The relationship between objective and perceived neighbourhood walkability and transportation and recreational physical activity

AUTHORS

Frehlich, L.[1], Lang, J.J.[2], Prince Ware, S.A.[2], McCormack, G.R.[1]

AFFILIATIONS

[1]*University of Calgary*
[2]*Public Health Agency of Canada*

Background Globally, too many adults remain insufficiently active to accrue optimal health. In Canada, only half accumulate 150-minutes/week of moderate-to-vigorous intensity physical activity (PA). Walkability, an urban design characteristic, may support the accumulation of PA. Assessed via objective measures and self-report (i.e., perceptions), neighbourhood walkability is positively associated with PA. Purpose While independently associated with PA, the joint effects of objective and perceived neighbourhood walkability are not fully understood. Our study assessed their potential joint effect on transportation and recreational PA. Methods National data (Canadian Health Measures Survey; n=3,995 adults) including self-reported walkability and transportation and recreational PA were linked to objective walkability (Canadian Active Living Environments Index). Pooled and sex-stratified covariate-adjusted Hurdle models estimated population-average associations between objective and perceived walkability (main and interaction effects) on weekly minutes of transportation and recreation PA. Results In the pooled and sex-stratified samples, objective walkability was positively associated with transportation PA (pooled β=9.39; 95%CI: 0.61-11.18 / male β=7.75; 95%CI: 5.42-10.08 / female β=11.60; 95%CI: 8.88-14.31). In the pooled and male-only sample, perceived walkability was positively associated with transportation PA (pooled β=5.53; 95%CI:1.55-9.5 / male β=6.00; 95%CI: 0.31-11.68). Among males, perceived walkability was positively associated with recreational PA (β=8.13; 95%CI: 0.61-15.66). The objective-by-perceived walkability interaction had a synergistic effect on transportation PA but an antagonistic effect on recreation PA for males, with no interactions observed among females. Conclusions Higher walkability (objective and perceived) appears important for supporting transportation PA regardless of sex. Perceived walkability may additionally support transportation and recreational PA among males. The contrasting associations suggest that objective and perceived walkability may operate differently across PA domains and between sexes. Implications for Policy and Practice Our results indicate that policy should aim utilize a combined approach and alter both the physical environment and perceptions to effectively encourage PA. Funding CIHR-HCRI (DA8-193073).

United Kingdom

Understanding Inequalities in Physical Activity Participation Among British South Asian Girls: A Scoping Review

AUTHORS

Razaq, R.[1], Sabahat, Z.[2], Bingham, D.[2], Iqbal, S.[2], Barber, S.[3], Jago, R.[4]

AFFILIATIONS

[1]*University of Bradford*
[2]*University of Bradford, United Kingdom*
[3]*Born in Bradford, United Kingdom*
[4]*University of Bristol, United Kingdom*

Background: Regular participation in physical activity during childhood and adolescence remains a global health challenge, despite its well established physical, social and mental health benefits including reduced risk of NCDs. International guidelines recommend that children and young people aged 5-17 years engage in at least 60 minutes of moderate to vigorous physical activity on average per day. Despite these recommendations, physical activity levels remain low for this population group, particularly among girls from Pakistani, Indian and Bangladeshi heritage in the United Kingdom. British South Asian populations experience higher rates of NCDs. Purpose: This scoping review aimed to map and synthesise the existing evidence on physical activity participation among British South Asian girls, with a focus on identifying key barriers, facilitators, interventions and gaps in the literature to inform future research, policy, and practice. Methods: A scoping review was conducted in accordance with the Joanna Briggs Institute methodology for Scoping Reviews. Searches were performed in MEDLINE, Scopus, CINAHL and PsychINFO from the year 2000 to 2026. Studies were included if they were female from a Pakistani, Indian or Bangladeshi background aged 5-18 years and included girls who had at least one biological parent from this population group. Two reviewers independently screened the titles, abstracts and full texts. Data were charted and synthesised using descriptive and thematic analysis. Results: A number of themes were identified (1). cultural and religious barriers such as modesty norms, gender segregation and misrepresentation of religious teachings (2). family and gender norms (3). institutional and school-based challenges (4). environmental and community level constraints, (5) the absence of culturally tailored co-designed interventions. Conclusions: Despite decades of concern and research, this population continues to face unique and complex barriers to physical activity. There is a urgent need for culturally competent, gender-sensitive and community informed interventions.

United States

Using workflow analysis to optimize distribution of a home-based health intervention for American Indian families.

AUTHORS

Bolyard, M.[1], Tomayko, E.[2], Adams, A.[2], Warne, T.[2], Swenson, E.[2], Estabrooks, P.[3]

AFFILIATIONS

[1]*University of Utah*

[2]*Center for American Indian and Rural Health Excellence, Montana State University, Bozeman, Montana*

[3]*Department of Health & Kinesiology, College of Health, University of Utah, Salt Lake City, Utah*

Background: Turtle Island Tales is an evidence-based, family-centered health and wellness program developed collaboratively with American Indian (AI) communities to promote child and family wellbeing. Strategies are needed to support scalable distribution across rural and tribal communities, given limited capacity. Purpose: Workflow analysis is commonly used in clinical and operational settings but has rarely been applied to community-based health programs. This study used workflow analysis to identify potential improvements in financial and human-resource efficiency within Turtle Island Tales' centralized distribution strategy. Methods: Workflow analysis included four steps: (1) identifying discrete workflow components; (2) assessing workflow components through direct observations (N=4), semi-structured interviews (N=7), and group orientation meetings (N=4) with program managers and staff; (3) developing and verifying a diagram of the current distribution workflow; and (4) proposing strategies to optimize workflow processes. Aggregate data were used to formalize staff roles and develop a swimlane diagram of the workflow. Results: The workflow included 8 people across 8 roles. For each of the 12 program kits, ordering required an average of 8.8 minutes, printing 0.4 minutes per item, and assembly 2.6 minutes per packet. Workflow barriers included printing bottlenecks, fragmented storage and manual inventory systems, limited onboarding documentation, inconsistent task management, and procurement delays. Reflection with managers and staff indicated that an optimized workflow could integrate strategies such as changing physical structure and equipment, improving record and task management systems, and formalizing onboarding processes. Conclusions: Turtle Island Tales appears to be a scalable, evidence-based intervention for obesity prevention. Given the limited number of culturally grounded programs developed in partnership with AI communities, strengthening centralized distribution is needed to ensure program capacity and sustainability. Implications for Policy and Practice: Workflow analysis may be a practical methodology for evaluating and optimizing community health program outcomes and implementation. Funding: National Cancer Institute (5U54CA280812-03 Sub-Project 7190).

United States

Visualizing the Global Evidence for CUlturally and REgionally Relevant Physical Activity (CURE-PA)

AUTHORS

Sentell, T.[1], Grout, L.[2], Look, M.[3], Yokooji, E.[4], Pirkle, C.[4], Soo Hoo, C.[4], Ylli, A.[5], Câmara, S.[6], Taira, D.[7], Rodericks, R.[4]

AFFILIATIONS

[1]*University of Hawai'i*

[2]*Southern California University of Health Sciences*

[3]*John A Burns School of Medicine, University of Hawai'i*

[4]*University of Hawai‘i at Mānoa*

[5]*Institute of Public Health, Albania*

[6]*Department of Physiotherapy, Universidade Federal do Rio Grande do Norte*

[7]*Daniel K. Inouye College of Pharmacy, University of Hawai'i, Hilo*

Background: A growing interdisciplinary body of evidence showcases that physical activities with cultural or regional relevance, including ethnic dance and traditional sports, have strong value for health promotion. Evidence on CUlturally and REgionally Relevant Physical Activities (CURE-PA) is dispersed across many disciplines, languages, settings, and types of scholarship/knowledge. While this highlights the deep, multifaceted importance and impact of CURE-PA, such a disciplinary array of evidence is rarely indexed together in standard academic research databases. Purpose: The project activity goal (part of the larger Public Health Resonance Project) sought to develop a practical visualization framework for synthesizing the global evidence for CURE-PAs in general and for any specific CURE-PA. Methods: In a multi-year iterative process, an international, interdisciplinary team considered challenges in synthesizing this evidence then created a draft visual model to showcase areas of evidence both by broad disciplinary areas and specific search terms. The model was refined from feedback from cross-sector expertise as well as community input about both the visualization and data sources, then tested with diverse global CURE-PAs, including Capoeira, Bon Dance, Hula, and Tahitian Dance. Results: Disciplinary areas with CURE-PA evidence for these topics included anthropology, Indigenous studies, leisure studies, substance use prevention, community design, gerontology, dance, ecology, sports performance, and injury surveillance among many others. The SHaring INterdisciplinary Evidence (SHINE) model provided a clear, coordinated framework to showcase health evidence strengths and gaps for various CURE-PA. Conclusions: The SHINE model can efficiently share multidisciplinary information about CURE-PA in general and for specific search topics. Implications for Policy and Practice: Visualizing how this literature is distributed can share the scope, scale, and value of this health evidence base and show gaps for future research and knowledge synthesis while highlighting existing best practices and areas for fruitful PA policy and practice development. Funding: the PH Resonance Project

United States

Where Evidence Is Scarce and Burden Is Growing: Physical Activity and Dementia Risk Worldwide

AUTHORS

Luong, D.[1], Feter, N.[2], Iso-Markku, P.[3], Markarian, T.[4], Gunnink, J.[4], Schroder, N.[5], Caputo, E.[6], Feter, J.[7], Nanda, A.[4], Hourihan, S.[4], da Silva, G.[8], Ventura, A.[4], Benzano Bumaguin, D.[9], Klimentidis, Y.[10], Alexander, G.[11], Hallal, P.[12], Umpierre, D.[13], Rombaldi, A.[8], Raichlen, D.[14]

AFFILIATIONS

[1]*University of Southern California*

[2]*Human and Evolutionary Biology Section, Department of Biological Sciences, University of Southern California, CA, USA; Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil*

[3]*Institute for Molecular Medicine Finland (FIMM), HiLIFE, University of Helsinki, Helsinki, Finland; HUS Diagnostic Center, Clinical Physiology and Nuclear Medicine, University of Helsinki and Helsinki University Hospital, Helsinki, Finland*

[4]*Human and Evolutionary Biology Section, Department of Biological Sciences, University of Southern California, CA, USA*

[5]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil; Postgraduate Program in Epidemiology, School of Medicine, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil*

[6]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil; Center for Evidence Synthesis in Health, School of Public Health, Brown University, RI, USA*

[7]*Center of Research on Physical Activity, Health, and Technology, School of Physical Education, Universidade Federal de Pelotas, Pelotas, Brazil*

[8]*Postgraduate Program in Physical Education, Federal University of Pelotas, Rio Grande do Sul, Brazil*

[9]*Postgraduate Program in Health Sciences – Cardiology, Fundação Universitária de Cardiologia, Porto Alegre, Brazil*

[10]*Department of Psychology, University of Arizona, Tucson, AZ, USA*

[11]*Department of Psychology, University of Arizona, Tucson, AZ, USA; BIO5 Institute, University of Arizona, Tucson, AZ, USA; Evelyn F. McKnight Brain Institute, University of Arizona, Tucson, AZ, USA; Department of Psychiatry, University of Arizona, Tucson, AZ, USA; Neuroscience Graduate Interdisciplinary Program, University of Arizona, Tucson, AZ, USA; Physiological Sciences Graduate Interdisciplinary Program, University of Arizona, Tucson AZ, USA; Arizona Alzheimer's Consortium, Phoenix AZ, USA*

[12]*Department of Health and Kinesiology, University of Illinois Urbana-Champaign, Urbana-Champaign, IL, USA*

[13]*Postgraduate Program in Health Sciences: Cardiology and Cardiovascular Sciences, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil*

[14]*Human and Evolutionary Biology Section, Department of Biological Sciences, University of Southern California, CA, USA; Department of Anthropology, University of Southern California, CA, USA*

BACKGROUND Geographical disparities in dementia burden will widen, with the largest increases occurring in low- and middle-income countries (LMIC). However, whether research on physical activity and dementia risk reflects this distribution remains unclear. PURPOSE We examined the geographical distribution of studies investigating the association between physical activity and dementia risk. METHODS We conducted a systematic review of cohort and case–control studies examining the association between physical activity and the risk of all-cause dementia, Alzheimer's disease, or vascular dementia. We searched CINAHL, PsycInfo, Scopus, PubMed, Web of Science, and SPORTDiscus for studies published from 2021 to Sept 3, 2025, and included all 58 studies included in previous meta-analysis covering publications from inception to Oct 2021. We constructed world maps in which country size was rescaled according to the number of studies on physical activity and dementia identified in this systematic review and changes in dementia cases between 2019 and 2050 according to the Global Burden of Disease 2019 study. RESULTS We included 80 studies comprising 5,013,910 middle-aged and older adults (age range 39.2–93 years). Overall, 93% of studies were conducted in high-income countries (HIC). There is a marked mismatch between the geographical distribution of evidence and the projected dementia burden. Countries expected to experience the largest relative increases in dementia cases by 2050 contributed the fewest studies on physical activity and dementia risk, whereas countries producing most evidence are projected to experience comparatively smaller growth in dementia burden. CONCLUSIONS Our findings highlight a substantial geographical mismatch in evidence on physical activity and dementia risk. IMPLICATIONS FOR POLICY AND PRACTICE Generalizing evidence largely derived from HIC to LMIC may misestimate the risks of physical inactivity in regions facing the greatest future dementia burden. A robust understanding of the physical activity–dementia association requires studies across diverse socioeconomic and cultural contexts.

Canada

Wrist Algorithms: Verification, Evaluation, and Surveillance group (WAVES): Global physical activity surveillance using wearables

AUTHORS

Fuller, D.[1], Ahmadi, M.[2], Doherty, A.[3], Stamatakis, E.[2], Martinez, J.[4], Bach, K.[5], Keadle, S.[6], Strath, S.[7], Matthews, C.[4], Brocklebank, L.[3], Maylor, B.[3]

AFFILIATIONS

[1]*University of Saskatchewan*
[2]*University of Sydney*
[3]*Oxford University*
[4]*National Institutes of Health*
[5]*Norwegian University of Science and Technology*
[6]*California Polytechnic*
[7]*University of Wisconsin Milwaukee*

Background: Wearable devices are an essential tool for measuring physical activity (PA) and are an important part of national and international and public health surveillance systems. There are hundreds of classification algorithms that convert sensor signals into behavioral metrics (i.e., step counts, moderate-vigorous physical activity (MVPA), and sedentary time), but a major challenge is that different data collection and algorithms produce very different results. Purpose: To evaluate available wrist-worn algorithms to estimate step count, sedentary time, and MVPA using standardized protocols. The protocols include data collection under real-world conditions, established reference measure, a sample independent from method development, diverse range of participants, and statistical evaluation. Methods: The methods for the WAVES project include four steps. First, independent evaluation of existing algorithms for step count, sedentary time, and MVPA measurement. Second, to improve machine learning and other classification algorithms and to evaluate performance in older adults and low- and middle-income populations (LMIC). Third, to conduct evaluation studies in LMIC countries to test and refine algorithms in these populations. Fourth, to conduct demonstration studies to field test the feasibility of World Health Organization draft guidance on the use of wearable devices in surveillance systems across set of diverse cultures and contexts. Results: To date, the WAVES groups have developed an analytic pipeline for the evaluation of existing algorithms. We have also harmonized two validation datasets. Comparative results of the analyses will be available at the time of presentation at the conference. Conclusions: The WAVES collaborative is a group working to improve the development and evaluation of algorithms to measure step count, sedentary time, and MVPA. We are seeking participation from groups who can share data and contribute to the development Implications for Policy and Practice: The work conducted by WAVES contributes directly to global surveillance of physical activity using wearable devices.