Using Qualitative Data Analysis Combined with Expert Consultation to Consolidate Research Opportunities: Developing the Physical Activity Research Opportunities (PARO) Framework

BACKGROUND

- Physical activity research opportunities are difficult to navigate, as they have been published in multiple consensus documents, guidelines, and reports.
- Focusing the physical activity research agenda could address gaps across the translational research spectrum, answer priority public health questions, and support scale-up of effective interventions.

Objective: Use qualitative data analysis[1,2] combined with expert consultation[3,4] to identify, synthesize, and categorize physical activity (PA) research opportunities into a single framework to advance PA research more efficiently.

METHODS

1. **Identify key source documents**
2. **Extract physical activity research opportunities**
3. **Code by translational phase, ecological level, setting, and priority population**
4. **Synthesize overlapping opportunities**
5. **Map relationships to develop the Physical Activity Research Opportunities (PARO) framework**

References:

1. Allen LM, Palermo C. Using document analysis to revise competency frameworks: Perspectives from the revision of competency standards for dietitians. Front Med. 2022;9.
2. Altheide DL, Schneider CJ. Process of qualitative document analysis. Qual Media Anal. London: SAGE Publications, Ltd; 2013. p. 38–74.
3. Klepac Pogrmilovic B, O'Sullivan G, Milton K, Biddle SJH, Bauman A, Bellew W, et al. The development of the Comprehensive Analysis of Policy on Physical Activity (CAPPA) framework. Int J Behav Nutr Phys Act. 2019;16:60.
4. Oldridge-Turner K, Kokkorou M, Sing F, Klepp K-I, Rutter H, Helleve A, et al. Promoting Physical Activity Policy: The Development of the MOVING Framework. J Phys Act Health. 2022;19:292–315.

The PARO framework organizes opportunities for physical activity research into a single, centralized resource.

What this means for dissemination and implementation science:

IMPROVES STRATEGIC ALIGNMENT

Helps researchers, practitioners, and funders target high-impact areas.

ACCELERATES MOVEMENT FROM RESEARCH TO PRACTICE

Maps how evidence can more efficiently advance into implementation and scale.

CAN BE ADAPTED ACROSS FIELDS

Offers a replicable model for synthesizing research opportunities in other public health areas.

Learn more about the PARO framework

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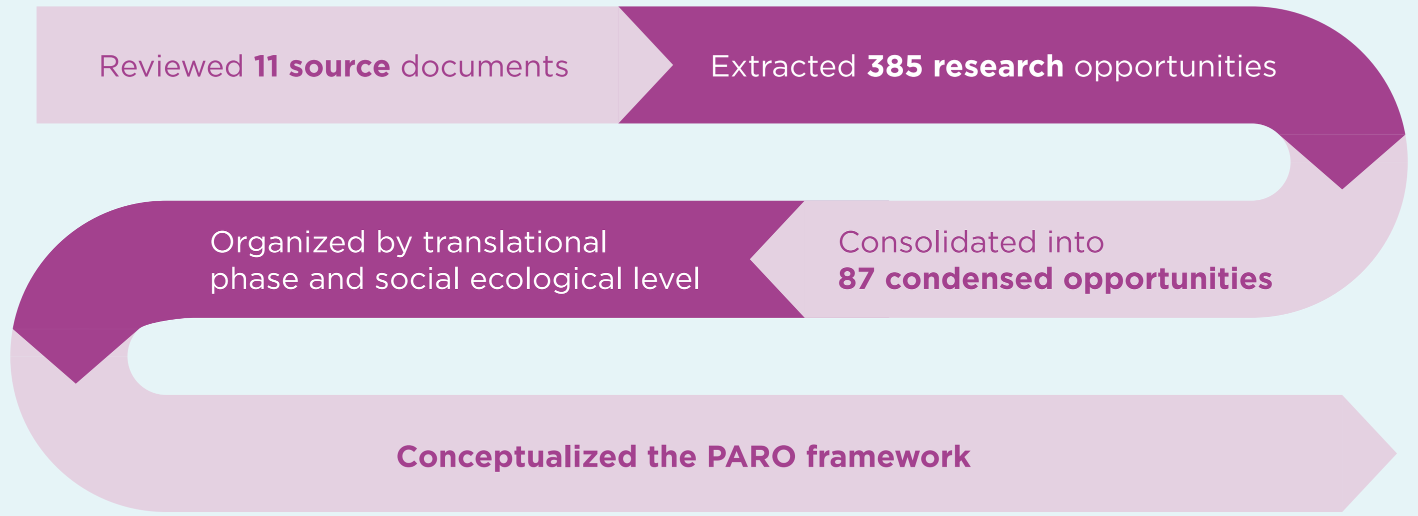
FINDINGS



The PARO framework organizes opportunities by translational research phase (methods development, etiology, efficacy, effectiveness, dissemination and implementation, and surveillance) and by social ecological level, providing a guide of where research efforts can be most impactful in PA promotion.

The table below details opportunities related specifically to dissemination and implementation.

DISSEMINATION AND IMPLEMENTATION OPPORTUNITIES

Individual and interpersonal

- Tailor and test existing school-based physical activity interventions for student needs and school context.
- Assess the implementation of computer-tailored interventions, including tailoring variables and core components.
- Investigate the implementation of social support interventions in community settings, including type, medium, intensity, structure, and frequency.

Policy, systems, and environment

- Conduct policy research on improving the adoption and implementation of active transportation, land use, and community design policies.
- Determine evidence-based core components of active travel to school interventions (e.g., active school buses, school bus availability, proximity to homes).
- Determine which characteristics of park, greenway, and trail infrastructure (e.g., wayfinding signs, trails, fitness centers) are most effective for increasing physical activity.
- Study the implementation of point-of-decision prompts, including format, type, size, distance to stairs, and number of flights.
- Test strategies to integrate physical activity interventions in clinical settings and guidelines.

Crosscutting

- Conduct research on the effectiveness of technical assistance to support communities in collecting data, measuring outcomes, and tailoring interventions.
- Develop and systematically test methods for improving the implementation and sustainability of evidence-based physical activity interventions in real-world settings.
- Examine how to best integrate and disseminate faith-based and faith-placed interventions.
- Examine barriers to adoption, implementation, and maintenance of school-based physical activity interventions.
- Examine how community-wide campaigns can be institutionalized, such as through community coalitions.
- Systematically test implementation of multi-component physical activity interventions, including core components (e.g., sedentary time, sleep, nutrition) and implementation strategies.