Enabling physical activity participation for children and youth with disabilities: A knowledge-to-action approach

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So now I can do it! Being able to do this is such a big thing for me. It's so big, I cannot tell you how big in words"

– male, 16y, cerebral palsy

What did we find?

Participants

95 participants were involved in this study:

31 children:
- Age: 12 y 6m (SD 2 y 2m), range 6-17y
- Gender: 18 male, 13 female
- Health conditions:
  - Cerebral palsy GMFCS I-V (n=12)
  - Acquired brain injury (n=2)
  - Intellectual disability (n=17)

44 parents:
- Mothers (n=26)
- Fathers (n=18)

20 health professionals:
- Allied health, medical and education
- Program staff (n=13)
- Community-based providers (n=7)
- Practice: 10y 3m (SD 9y 6m), range 2-44y

Qualitative themes

Thematic analysis revealed three overarching themes detailing how the intervention elicited outcomes, and included:

- Support and relationships: the primary mechanism that enabled the intervention to produce meaningful outcomes for children, families and health professionals, and for physical activity practices acquired in the intervention to be sustained in local community settings. Sub-themes detailed how this was operationalised:
  - Family-centred, including family-family support
  - Children need to feel safe
  - Good staff matter
  - Connecting communities (people, services, and systems)

- A participation-focused approach: Participation was both the focus and the outcome of intervention, and promoted a range of additional outcomes across all levels of the ICF-CY.
  - “The focus is very much on participation, giving the children the possibility to be active in their daily life” – BHC staff member

- Invest in the future: A child’s participation preferences and needs change over time, and access to support across the lifespan is required.
  - “I think it’s important that these opportunities exist throughout life for everyone to be active” – Mother

Conclusions and recommendations

This research addresses key steps to bridge the knowledge-to-action gap and enable children and youth with disabilities to participate in physical activity. These findings add new knowledge to key stages of physical activity intervention development and evaluation that have received little attention in childhood disability literature. Outcomes of this research may be applied by researchers, health professionals, and families attempting to optimise participation in physical activity for children and youth with disabilities.

Goal-directed, family-centred interventions

Geographically-organised intervention groups

Strong leadership and strengths-based attitudes

Equal partnerships between families, professionals, and communities

Plan for physical activity participation across the lifespan

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References:

The problem

Identifying strategies that facilitate participation in physical activity for children and youth with disabilities is recognised as an urgent priority\textsuperscript{1}. While there are growing numbers of targeted participation interventions, there is limited understanding of the mechanisms that optimise intervention outcomes. Understanding how interventions trigger change is required for effective translation into practice. This research aimed to evaluate how a participation-focused intervention enables children and youth with disabilities to participate in physical activity, to provide evidence of operative strategies that may enhance the design and effectiveness of future interventions in research and practice.

What did we do?

1. This study evaluated the Local Environment Model (LEM) intervention at Beitostolen Healthsports Centre (BHC) in Norway. The LEM engages children, parents, and service providers from the same community in the preparation, intervention, and follow-up stages of service delivery. Groups of 8-10 children and their parents stay at BHC, participating in 2-5hrs of adapted physical activity per day, 3 days a week, for 3 weeks.
2. Recommendations of the Medical Research Council’s Complex Interventions Framework\textsuperscript{2} and the Canadian Institute of Health Research Knowledge-To-Action Cycle\textsuperscript{3} were applied to identify how and why the intervention works, and to adapt and tailor identified knowledge.
3. Semi-structured interviews with participants explored the active ingredients and outcomes of the intervention, and overt observational methods determined relationships between viewpoints and participant behaviours.
4. Data analysis were an iterative approach of constant comparison, where data collection, coding and analysis were undertaken simultaneously. Methods to ensure trustworthiness were employed.