DEVELOPMENT OF A SMARTPHONE-DELIVERED PEER-LED PHYSICAL ACTIVITY COUNSELLING PROGRAM FOR MANUAL WHEELCHAIR USERS: A MIXED-METHODS APPROACH.

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Rationale & Objectives

- The health benefits of physical activity are well-known.[1]
- The importance of physical activity (PA) is amplified for manual wheelchair (MWC) users.[2]
- Few MWC users are active enough to receive health benefits.[3,4]
- Based on the Medical Research Council Framework[5] for developing complex interventions, the objective of this study is to develop a **Smartphone-delivered Peer-led Physical Activity Counselling (SPPAC)** program for MWC users.

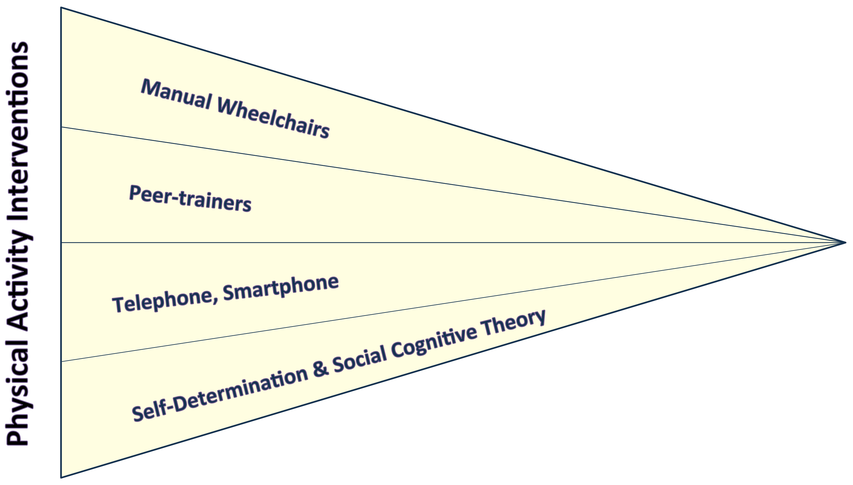
Methods

Design. Mixed-methods (1. Scoping Review, 2. Focus Groups).

1. Electronic online databases were searched (Pubmed/MEDLINE, CINAHL, PsycINFO) using keywords: physical activity/exercise intervention; manual wheelchair; peer-led; telephone/Smartphone.
2. Focus group were done with experts (occupational therapists, knowledge users, MWC users). Experts discussed their perceptions and opinions of the SPPAC intervention, including the delivery method (peer-led, Smartphone), frequency and duration of program, important components, and perceived barriers. Thematic content analysis were performed.

Results

1. Scoping Review



- n = 17
- Several barriers and facilitators to physical activity participation for MWC users have been addressed.
- Existing interventions have low to medium effects on PA behaviour.
- Important psychological variables (autonomy, motivation, self-efficacy) have yet to be fully included.

2. Focus Groups

2 Focus Groups **(n = 11)**
- 5 OTs
- 2 Knowledge Users
- 3 MWC users
- 1 MWC & Knowledge User

"Peers can provide extra motivation to get active."

"To be active, the user first needs to trust in his/her ability to use a MWC, otherwise it is a major barrier."

"SPPAC is inclusive and has the ability to reach people of all ages and all diagnoses."

"MWC users have the ability to participate in PA in the 'real-world'."

"Smartphones may have positive effects on motivation (e.g. SMS, social media, voice/video calls, apps to track PA)"

"Smartphones may help establish a sense of community"

"SPPAC should not be limited to Smartphones"

"A well-trained peer and initial evaluation of MWC skills are important"

"Basic MWC skills are needed before starting SPPAC"

Conclusions & Future Directions

- SPPAC has theoretical backing and expert agreement for approaches to implementing important psychological variables that can influence PA participation. (i.e., autonomy, motivation, self-efficacy)
- Peers provide vicarious experience to reinforce self-efficacy and are a source of motivation.
- Use of a Smartphone and goal-setting supports autonomy and motivation.
- Apprehensions of SPPAC need to be addressed (e.g., knowledge of peer-trainers, virtual vs. physical interactions).
- Future studies:
  - Delphi surveys to attain consensus of SPPAC intervention
  - Randomized controlled trial to evaluate the feasibility and efficacy of SPPAC

References: [1] Warburton et al. Can Med Assoc J 2006;174:801-809; [2] Anderson et al. Disabil Health J 2010;3:71–3; [3] Best et al. J Aging Res 2011; [4] Martin Ginis et al. Arch Phys Med Rehabil 2010; 91(5): 722-728; [5] Craig et al. Brit Med J 2008:337(a1655).