Integrating Wearable Physical Activity Monitoring Tools into Rehabilitation Practice for Patients with Arthritis: the Healthcare Professional Perspective

Graham Macdonald1,2, Jenny Leese1,2, Catherine Backman1,2, Anne Townsend1,3, Aileen Davis4, Diane Gromala5, Antonio Avina-Zubieta1,2, C Allyson Jones6, Linda Li1,2


Background

- Wearable physical activity monitoring tools can be used for goal-setting and progress-monitoring in rehabilitation programs for patients with arthritis.
- Little is known about the views of healthcare professionals regarding potential clinical application of these tools.

Objective

To identify the barriers and facilitators perceived by healthcare professionals to the prospect of using commercially available wearable physical activity trackers in their practice.

Methods

- Focus groups and one-on-one interviews exploring views of healthcare professionals towards physical activity trackers.
- Eligibility:
  - English-speaking
  - Physiotherapists or occupational therapists
  - Patients with arthritis
- Transcripts were coded and analyzed using Constant Comparative Method (qualitative, iterative, theme-based method coding content into thematic categories, refining codes as trends emerge, and analyzing categories to maintain logical consistency as new insights become apparent).

Findings

The majority of healthcare professionals participating in the study regarded these devices as potentially useful tools because of the objective data they provide and their ability to facilitate the setting of and adherence to goals throughout rehabilitation. Some of the participants, however, thought that they would be of limited use due to:

1) The inaccessibility for people with health-related challenges such as hand pain and deformity due to arthritis, or vision problems
2) The lesser computer literacy of older patients, who were the majority of patients with osteoarthritis.
3) Their potential to be “just another novelty” in the following ways:
4) The cost of these devices for patients
5) Patients will find the technology excessive, which may end up demotivating the patient and putting strain on the therapist-patient relationship

Conclusion

- Our results reveal that activity trackers show promise for improving physical activity habits, however, some therapists are skeptical regarding the benefit for and accessibility to specific patients, particularly older adults.
- Participants agreed that the patient-therapist relationship must take precedence over PATs: “you could never replace therapy with an app.”