Using the Theoretical Domains Framework to Identify Barriers and Facilitators to Exercise Among Older Adults Living with HIV

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Study Background and Purpose

- Quality of life and life expectancy have improved for people living with HIV (PLWH). (1)
- However, PLWH experience a higher prevalence and impact of comorbidities. (2)
- Exercise interventions are recommended, (3) but many PLWH are not meeting current exercise guidelines. (4,5)
- The Theoretical Domains Framework (TDF) helps identify relevant mediating factors of behaviour change that can be targeted using behaviour change techniques. (6)

Purpose:

- To use the TDF to investigate the physical activity barriers and facilitators of older PLWHs
  - Particularly barriers and facilitators to participating in yoga
  - Currently recruiting for a pilot randomized trial involving yoga

Domains of the TDF:

<table>
<thead>
<tr>
<th>Social Influences</th>
<th>Environmental Context and Resources</th>
<th>Reinforcement</th>
<th>Intentions</th>
<th>Social and Professional role and identity</th>
<th>Knowledge</th>
<th>Beliefs about consequences</th>
<th>Optimism</th>
<th>Emotion</th>
<th>Behavioural Regulation</th>
<th>Skills</th>
<th>Memory, Attention, Decision Processes</th>
</tr>
</thead>
</table>
Methods, Data Collection, and Analysis

- Qualitative, in-depth, key-informant, semi-structured interviews with 12 participants
- Inclusion criteria: aged 45 and older, HIV positive, self-identified cognitive difficulties
- Demographic questionnaire
- Interview guide was developed using a committee of people with HIV in Halifax
- Interviews were audio-recorded, transcribed verbatim, then de-identified.
  - De-identified transcripts were uploaded onto NVivo11 and the data were coded according to the TDF using deductive content analysis.
  - Two independent investigators created a coding guideline, coded each transcript by paragraph, and met frequently.
Results

- **Facilitators**: HIV diagnosis reinforces positive health behaviours, prioritizing exercise over other activities, physical and mental benefits, encouragement from others, technology

- **Barriers**: negative experiences with health care workers, stigma, HIV medications, side effects, comorbidities, weather, injuries, lack of motivation, lack of self-efficacy unfamiliarity with yoga, lack of knowledge of exercise guidelines, lack of information about exercise prescription

"Confusing. I have no idea. I know that [yoga is] a meditation. I’m not sure if it’s an actual workout or not because I never really saw too much physical stuff associated with yoga. But I would have to say I’m almost in the dark with it." P002

- 12 participants
  - 9 males, 3 females
  - Mean age: 56.6
  - 20.0 years living with HIV
  - All taking antiretrovirals
  - All had undetectable viral loads
  - Mean CD4 count: 835.5
Discussion and Key Messages

• Our study aligns with previous work indicating positive relationships between perceived health status and participation in physical activity.(9)

• The finding that lack of self-efficacy is a barrier to exercise is of concern because self-efficacy is a significant predictor of adherence to HIV interventions, including exercise.(10, 11)

• Psychological attributes (i.e. self-efficacy) may be more influential mediators of adherence to physical activity than physical characteristics.(10)

• Most participants in this study spoke of the mental and physical benefits as motivators to being physically active.

• Many participants were not receiving advice about exercise parameters from their health care providers.

Key Messages:

• PLWH experience numerous barriers to physical activity but also identify many facilitators to motivate engagement.

• Researchers and clinicians designing exercise interventions for PLWHs should incorporate strategies to address these obstacles.

• We recommend that health care providers offer basic exercise information, particularly instruction on weight-bearing and balance exercise.(12,13)

• Lack of knowledge related to physical activity highlights the role of physical and occupational therapists in the rehabilitation cascade for people living with HIV.

References: https://docs.google.com/document/d/1yPDnqCOMdXJZC1T5GBAQOZvkX52eFHYplcES_mKEK4Y/edit?usp=sharing