Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches

Abstract #202

Exploring the Feasibility of Implementation of an Online Tele-Coaching Community-Based Exercise Intervention among Adults Living with HIV in Toronto, Ontario

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Objective: To assess the feasibility of implementation of an online community-based exercise (CBE) intervention in Toronto, Ontario.

Methods: We conducted an observational longitudinal study with adults living with HIV engaged in a six-month tele-coaching CBE intervention (biweekly exercise supervised online by a personal trainer, weekly group online exercise classes, monthly educational sessions, and e-learning modules). Participants were asked to wear a physical activity monitor (Fitbit) throughout. We administered a web-based questionnaire at month 2 and 6 to assess feasibility operationalized as: ease of use (7 items) and helpfulness (6 items) for components of the intervention [personal training sessions, group exercise classes, monthly educational sessions (all via Zoom); Fitbit; YMCA Virtuagym website; Sweat for Good App; self-directed e-learning modules], reliability of the technology (technology interruptions, need to reboot (2 items)), and satisfaction (10-item Telehealth Satisfaction Scale (TeSS)). We calculated frequencies and percentages for each item, and median (25th, 75th percentiles) of the TeSS (range: 10-40; higher scores indicating higher satisfaction).

Results: Of the 32 participants (70% men, median age 51.5 years) who initiated the intervention, 30 completed a questionnaire at month 2 or 6. Intervention components were rated as 'easy or very easy to use' by 35-96% of participants (for the Virtuagym website and monthly educational sessions, respectively), and 'helpful or very helpful' by 50-96% of participants (e-learning modules and Zoom, respectively). Most participants (50-79%) reported no interruptions or need to reboot technology. Median satisfaction (TeSS) scores were 38/40 (32, 40; month 2) and 37/40 (34, 40; month 6).

Conclusion: The online CBE intervention appears feasible for implementation among this sample of adults living with HIV. Personal training and group educational sessions (via Zoom), and the Fitbit were considered easiest to use and most helpful among participants. Results can inform ways to tailor online CBE interventions with adults living with HIV.

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Tele-Coaching Community Based Exercise Research Study

Physical Therapy UNIVERSITY OF TORONTO

Background: Community-based exercise (CBE) can help manage health-related challenges associated with HIV and concurrent conditions.

- **Tele-rehabilitation** involves delivering programs through web-based platforms, including online physical activity instruction (tele-coaching).
- Evidence for tele-coaching has been established in several populations (people living with COPD, renal disease, chronic pain), but its utility and feasibility for use with people living with HIV is unknown.

Aim: To assess the feasibility of implementation of an online community-based exercise (CBE) intervention with adults living with HIV in Toronto, Ontario.

Methods: We conducted an observational longitudinal study with adults living with HIV engaged in a multi-component **six-month tele-coaching CBE intervention.** For the intervention, we provided participants with access to seven technology components, described below.

Fitbit
Worn during intervention to capture activity data.

YMCA Virtuagym
Website used to book personal training and group classes.

YMCA Sweat for Good App
Used to book personal training and group classes.

Self-Directed E-Learning
Online resources for participants on topics including goal-setting.

Online Group Exercise Class
Weekly exercise classes led by a YMCA trainer.

Personal Training (Zoom)
Every 2 weeks with a YMCA trainer (13 sessions total).

Self-Care Sessions (Zoom)
Monthly sessions focused on self-management and health.

Feasibility Assessment

We administered a web-based questionnaire with adults living with HIV at month 2 and month 6 to assess feasibility, operationalized as:

- **Ease of use** (7 items), **Helpfulness** (6 items), and **Reliability** (2 items) of the technology components used, and **Satisfaction** with technology (10-item Telehealth Satisfaction Scale (TeSS)).

Responses options

- For **ease of use** and **helpfulness**, items were rated on the following scales:
  - ○ Very easy ○ Easy ○ Somewhat easy ○ Not easy ○ Not applicable
  - ○ Very helpful ○ Helpful ○ Somewhat helpful ○ Not helpful ○ Not applicable
- For **satisfaction** with technology (measured with TeSS)**,** items were rated on a scale of:
  - ○ Poor ○ Fair ○ Good ○ Excellent

Analysis

We calculated frequencies and percentages for each item of the feasibility assessment, and median (25^{th}, 75^{th} percentiles) of the TeSS (range: 10-40; higher scores indicate higher satisfaction).

Results

- **Thirty-two** participants initiated the intervention.
- The feasibility assessment questionnaire was completed by **28** participants at month 2, **20** at month 6, and **18** completed both month 2 and month 6.
- Overall, **30** unique participants completed a feasibility assessment questionnaire.

Participant Characteristics (n=30)

Characteristic	N (%)
Age (in years)	
Median (25^{th}, 75^{th} percentile)	52 (42, 59)
Years since HIV diagnosis	
Median (25^{th}, 75^{th} percentile)	19 (12, 29)
Gender	
Woman (cis-woman)	8 (27%)
Man (cis-man)	21 (70%)
Non-binary	1 (3%)
Living with ≥2 concurrent health conditions in addition to HIV	21 (70%)

Characteristic	N (%)
Have children	6 (20%)
Average personal gross yearly income	
Less than $30 000	12 (40%)
$30 000 to less than $60 000	10 (33%)
$60 000 to less than $100 000	6 (20%)
Greater than $100 000	2 (7%)
Main source of income	
Employment (Full or Part-time)	11 (37%)
Pension	7 (23%)
Ontario Disability Support Program	11 (37%)
Casual Employment	1 (3%)

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Results: Feasibility Assessment

Ease of Use

Technology Component	Month 2 (n=28) Rated as 'Easy to use' or 'Very easy to use' N (%)	Month 6 (n=20) Rated as 'Easy to use' or 'Very easy to use' N (%)
Personal training on Zoom	26 (93%)	19 (95%)
Monthly self-care sessions on Zoom	27 (96%)	15 (75%)
Fitbit	23 (82%)	15 (75%)
Self-directed e-learning modules	15 (54%)	13 (65%)
Group online exercise classes on Zoom	13 (46%)	11 (55%)
YMCA Sweat for Good App	14 (50%)	8 (40%)
YMCA Virtuagym Website	13 (46%)	7 (35%)

Personal training and **monthly self-care sessions were rated** as easy or very easy to use by most participants (>90%).
Fewer participants (<50%) **rated the YMCA Virtuagym website** as easy or very easy to use.

Helpfulness

Technology Component	Month 2 (n=28) Rated as 'Helpful' or 'Very helpful' N (%)	Month 6 (n=20) Rated as 'Helpful' or 'Very helpful' N (%)
Zoom	27 (96%)	19 (95%)
Fitbit	24 (86%)	15 (75%)
Monthly self-care sessions on Zoom	22 (79%)	13 (65%)
Self-directed e-learning modules	15 (54%)	13 (65%)
YMCA Virtuagym Website	15 (54%)	11 (55%)
YMCA Sweat for Good App	16 (29%)	11 (55%)

Zoom and **Fitbit** were rated as helpful or very helpful by most participants (≥75-96%).
Fewer participants (<30%) rated the **YMCA Sweat for Good app** as helpful or very helpful.

Reliability

Reliability Item	Rating	Month 2 (n=28) N (%)	Month 6 (n=20) N (%)
There were interruptions when using the online coaching technology.	No interruptions	19 (68%)	10 (50%)
	One or two interruptions	8 (29%)	5 (25%)
	A few interruptions	1 (4%)	5 (25%)
	Many interruptions	0	0
I had to reboot the online tele-coaching system when using it.	Never had to reboot	22 (79%)	12 (60%)
	Had to reboot one or two times	6 (21%)	5 (25%)
	Had to reboot a few times	0	3 (15%)
	Had to reboot many times	0	0

No participants reported experiencing many interruptions or needing to reboot many times at month 2 or 6.

Satisfaction

At **month 2** (n=28), the median TeSS score was 38/40 (25^{th}, 75^{th} percentile: 32, 40).
At **month 6** (n=20), the median score was 37/40 (25^{th}, 75^{th} percentile: 34, 38).

Discussion

- Participants found most of the technology components easy to use, helpful, and reliable, and were satisfied with the technology used in the CBE intervention.
- **Zoom sessions** (including personal training and monthly self-care sessions) were rated as easy or very easy to use and helpful or very helpful by most participants.
- The **YMCA Virtuagym website** and **Sweat for Good App** were rated as easy or very easy to use and helpful or very helpful by the fewest participants.
- Results may suggest that participants found the technology components that were synchronous easier to use and more helpful than those that required more independent use.
- **Overall satisfaction** with the technology used in the intervention was high at both time points.
- **Future research** should consider how interventions can be tailored to suit the preferences of participants, particularly related to the use of technology and preferences for synchronous or asynchronous components.
- **Limitations:** Our study had a small sample size, and not all participants completed the questionnaire at both time points.

Conclusions: The online CBE intervention appears feasible for implementation among this sample of adults living with HIV. These results can inform ways to facilitate the implementation of technology into CBE interventions with adults living with HIV.

Scan for more information on this study

ONTARIO HIV TREATMENT NETWORK

OCS OHTN Cohort Study

Conflict of Interest Disclosure: No conflicts of interest.