Improved Function, Strength, Quality of Life and Goal Attainment in People Living with HIV Attending a Physiotherapy-led Group Rehabilitation Intervention in the UK

D. Brown, A. Claffey, R. Harding

@darrenabrown  @ChelWestFT
WHATS REHABILITATION GOT TO DO WITH IT?

#RehabHIV

Living Longer
People living with HIV are living longer

Health Conditions
Susceptible to developing health conditions arising from HIV, long-term ARVs and Ageing

Health Challenges
The combination of HIV, ageing and associated multi-morbidity can create physical, cognitive, mental and social health-related challenges

Multi-morbidity
As a result, multi-morbidity, is becoming increasingly common among people living with HIV

Disability
Collectively these health-related challenges may be conceptualised as disability, & rehab is recommended to support physical, mental & social health challenges

Episodic Disability
The episodic disability framework describes the unique dimensions of disability experienced by people living with HIV
EPISODIC DISABILITY FRAMEWORK

#RehabHIV  @KellyOBrien25

Dimensions of Disability

- Symptoms / Impairments
- Difficulties with Day-to-Day Activities
- Challenges to Social Inclusion
- Uncertainty

- Adverse Effects of HIV or Meds (Fatigue, Diarrhea, Nausea, Pain, etc.)
- Stress, Anxiety, and Depression
- Fear, Decreased Self Esteem, Shame or Embarrassment, Loneliness
- Parental Roles
- Work & School
- Personal Relationships
- Other Social Roles and Activities

http://www.hqlo.com/content/6/1/76
Rehabilitation Interventions in HIV

Evidence-informed recommendations for rehabilitation with older adults living with HIV: a knowledge synthesis

Kelly K O’Brien,1,2,3 Patricio Solomon,2 Barry Trentham,4 Duncan MacLachlan,5 Joy MacDermid,6 Anna-Marie Tyran,4 Larry Baxter,5 Alan Casey,7 William Chignold,6 Greg Robinson,2 Todd Tran,4 Janet Wu,6 Elise Zack2

Overarching Recommendations on Rehabilitation for Older Adults with HIV (n=8)

1) Rehabilitation Professionals (RPs) should be prepared to provide care to older adults with HIV who present with complex comorbidities...

2) RPs should adopt an individualized approach to practice, sensitive to unique values, preferences and needs of older adults with HIV...

3) Multidisciplinary rehabilitation is strongly recommended across continuum of care...

4) RPs should consider the role of extrinsic contextual factors (ageism, stigma, disclosure, social support)...

5) RPs should consider the role of intrinsic contextual factors (self-management, spiritualty) ...

6) Aerobic and resistive exercises may be recommended for older adults with HIV who are medically stable and living with comorbidities...

7) Cognitive rehabilitation interventions may be recommended for older adults with HIV with mild cognitive impairments and stroke...

8) In absence of high level evidence RPs should refer to high level evidence for recommendations on interventions for a specific comorbidity ...

Stream A Recommendations

HIV Aging and Rehabilitation

Derived from 41 low or very low level evidence articles

Recommendation Theme

Preparedness of Rehabilitation Professionals

Approaches to Rehabilitation Assessment and Treatment (physical, mental, neurocognitive, uncertainty, social (relaxion)

Extrinsic Factors to consider with rehabilitation of older adults with HIV (ageism, stigma, disclosure, social support)

Intrinsic Factors to consider with rehabilitation of older adults with HIV (self-management, spirituality)

Rehabilitation Approaches (interprofessional practice, CAM)

Rehabilitation Interventions (exercise)

Total # Recommendations

#52 Detailed (Specific) Evidence-Informed Recommendations

Endorsement Rates for Each Recommendation Ranged from 53% - 100%
Exercise leads to improvements in:
- Cardiopulmonary fitness (VO2max, exercise time)
- Body composition (lean body mass, leg muscle area, % body fat)
- Strength (chest press, knee flexion)
- Depression symptoms
- Quality of life (SF-36 questionnaire)
- No change in CD4 count or Viral Load
REHABILITATION PRACTISE

#RehabHIV

ONE:ONE INTERVENTION
SPECILIALIST HIV PHYSIO CLINIC

Outpatient Specialist
HIV Physiotherapy Service

GROUP INTERVENTION
KOBLER REHABILITATION CLASS
KOBLER REHAB CLASS

#RehabHIV

The Kobler Rehabilitation Class
- Twice weekly Supervised Group Exercise
- Progressive Resistance Training
- Neuromotor Exercise
- Cardiovascular Exercise
- Flexibility Training
- Guided Relaxation

The Self-Management Programme

OUTCOME MEASURES
- WEEK 0
- WEEK 10
- HEIGHT
- WEIGHT
- BODY SHAPE
- HEART RATE
- 6MWT
- STRENGTH
- FAHI
- FLEXIBILITY
- GOALS

Evaluation of a physiotherapy-led group rehabilitation intervention for adults living with HIV: referrals, adherence and outcomes
Darren Brown1, Austin Claffey2 and Richard Harding2

1Therapies Department, Chelsea and Westminster Hospital, London, UK; 2School of Health & Social Care, London South Bank University, London, UK; 3Department of Palliative Care, Policy & Rehabilitation, King’s College London, Guy’s and St Thomas’ Institute, London, UK
KOBLER REHAB CLASS

#RehabHIV

Referrals (n=92)

- Male Gender: 75%
- White Ethnicity: 70%
- Dual Oncology Diagnosis: 35%

AVERAGE AGE: 52 MIN - 75 MAX

Chelsea and Westminster Hospital
NHS Foundation Trust
Evaluation of a physiotherapy-led group rehabilitation intervention for adults living with HIV: referrals, adherence and outcomes

Darren Brown, Austin Claffey and Richard Harding

*Therapies Department, Chelsea and Westminster Hospital, London, UK; *School of Health & Social Care, London South Bank University, London, UK; *Department of Palliative Care, Policy & Rehabilitation, King’s College London, Cicely Saunders Institute, London, UK
KOBLER REHAB CLASS

#RehabHIV

Goals

BODY-IMAGE

MOBILITY

HEALTH/FITNESS

SOCIAL

FUNCTIONAL

PAIN

EMPLOYMENT

PARTICIPATION

FATIGUE

SMOKING

HAPPINESS

BALANCE

SEX

PAIN

SLEEP

STRENGTH

FLEXIBILITY
KOBLER REHAB CLASS

#RehabHIV

Adherence

KOBLER REHABILITATION CLASS ADHERENCE

46%

KOBLER REHABILITATION CLASS RETURNED / RESTARTED WHEN NON-ADHERENT

37%
KOBLER REHAB CLASS

#RehabHIV

Outcomes (n=37)

Evaluation of a physiotherapy-led group rehabilitation intervention for adults living with HIV: referrals, adherence and outcomes

Darren Brown\(^1\), Austin Claffey\(^2\) and Richard Harding\(^3\)

\(^1\)Therapies Department, Chelsea and Westminster Hospital, London, UK; \(^2\)School of Health & Social Care, London South Bank University, London, UK; \(^3\)Department of Palliative Care, Policy & Rehabilitation, King’s College London, Cotsy Saunders Institute, London, UK

Locomotor Performance

86m (p<0.001)

- Exceeding clinically important difference in COPD, heart failure, stroke survivors and community dwelling older adults

Strength

- TRICEPS (p<0.001)
- BICEPS (p<0.001)
- LATTISIMUS DORSI (p<0.001)
- SHOULDER PRES (p<0.001)
- CHEST PRESS (p<0.001)
- LEG PRESS (p<0.001)

Health Related Quality of Life

- PHYSICAL WELL BEING (p<0.001)
- EMOTIONAL WELL BEING (p<0.001)
- FUNCTIONAL/GLOBAL WELL BEING (p=0.005)
- SOCIAL WELL BEING
- COGNITIVE FUNCTIONING

Flexibility

8cm (p<0.001)

Goal Attainment

64%

- Achieved all goals
- Average = 3 goals
HIV Patient Characteristics that Affect Adherence to Exercise Programmes: An Observational Study

Andrea Petróczy¹, Kim Hawkins², Gareth Jones³ and Declan P. Naughton³

Non-Adherence

- 62% Willing to attend
- 48% Able to attend

Telephone Interviews

- x2 week adherence ≥8/20

Evaluation of a physiotherapy-led group rehabilitation intervention for adults living with HIV: referrals, adherence and outcomes

Darren Brown⁴, Austin Claffey⁵ and Richard Harding⁵

¹Therapies Department, Chelsea and Westminster Hospital, London, UK; ²School of Health & Social Care, London South Bank University, London, UK; ³Department of Palliative Care, Policy & Rehabilitation, King’s College London, Cosley Saunders Institute, London, UK
FUTURE OPPORTUNITIES

#RehabHIV

The Need of the KRC
Mark Spreckley LSHTM
Multi-stakeholder needs analysis of Kobler Rehab Class

NIHR Feasibility Trial
Richard Harding & Matt Maddocks (KCL) and expanding team
Structurally modify service

Service Expansion
Providing equity in service provision across all sites re: referrals and access

Measurements
5x Sit-Stand 1 year trial
Modify as part of NIHR

HIV Disability Questionnaire
Currently too long, however being used in research in the UK to measure presence, severity & episodic nature

Technology
Use of technology in measurements and for use of biofeedback

Service Improvement
Uniform measurement tools across clinic and class
Incorporating technology in measurements
CONCLUSION

#RehabHIV

1. Rehabilitation is recommended for people living with HIV who experience disability and exercise is safe and effective intervention.

2. The Kobler Rehabilitation Class is a unique rehabilitation service designed to meet the needs of people living with HIV and disability.

3. Patients who attend and complete measurements improve function, strength, flexibility, quality of life and achieve personal goals.

4. Further development of the service will address the unique needs of people living with HIV to improve accessibility and outcomes.
THANK YOU

Darren Brown – Physiotherapist
Chelsea and Westminster Hospital NHS Foundation Trust
London, United Kingdom
@darrenabrown  @ChelWestFT