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OT's Mental Health Response To The COVID Pandemic Virtual Conference

Guest Editor: Christine Helfrich, PhD, OTR/L, FAOTA

Mon 11/16	OT's Mental Health Response to the COVID Pandemic: The Medically Complex Client Simone Gill, PhD, OTR/L, Christine Helfrich, PhD, OTR/L, FAOTA, Danny Shin, OTR/L
Tues 11/17	OT's Mental Health Response to the COVID Pandemic: Adolescents in Group Homes Joanna Stumper, MS, OTR/L
Wed 11/18	OT's Mental Health Response to the COVID Pandemic: Promoting School Participation, A Trauma-Informed Approach Amanda M. Rodriguez, OTD, MOT, OTR/L
Thurs 11/19	OT's Mental Health Response to the COVID Pandemic: Persons Experiencing Homelessness Caitlin Synovec, OTD, OTR/L, BCMH
Fri 11/20	OT's Mental Health Response to the COVID Pandemic: Older Adults Elizabeth Alicea Torres, MS, OTR/L

OT's Mental Health Response to the COVID Pandemic: The Medically Complex Client

Danny Shin OTR/L PhD Candidate

Simone V. Gill PhD

Christine Helfrich PhD

Boston University College of Health & Rehabilitation Sciences: Sargent College
Department of Occupational Therapy

AIC AMERICAN INTERNATIONAL COLLEGE

Danny Shin, OTR/L

Danny Shin is an occupational therapist with expertise in neurorehabilitation and physical dysfunction. He is currently a PhD candidate in the Rehabilitation Sciences program at Boston University. His work focuses on examining how physical, psychosocial, and environmental factors impact fall risk in people living with chronic conditions.

Simone Gill, PhD, OTR/L

Dr. Simone Gill is an Assistant Professor in the Department of Occupational Therapy at Boston University. She directs the Motor Development Lab, which examines how people's bodies and environmental demands influence walking and motor functioning across the lifespan. Current research in her lab focuses on fall risk and how adults modify their walking patterns to cope with changes in their bodies before and after bariatric surgery.

Christine Helfrich, PhD, OTR/L, FAOTA

Christine Helfrich, PhD, OTR/L, FAOTA is an Associate Professor in the Division of Occupational Therapy at American International College. She has worked clinically and developed student fieldwork programs throughout the spectrum of mental health settings. Her research focuses on understanding and meeting the needs of those least likely to receive occupational therapy services. Her work has defined the role of occupational therapy with survivors of domestic violence and people who have experienced homelessness as she seeks to include the voice of clients in all aspects of research, teaching, service, and fieldwork development. The interdependence of practice, research, and education is apparent in her work and focus on social learning and occupational justice.

- Presenter Disclosure: Financial: Danny Shin, Simone Gill, and Christine Helfrich have received an honorarium for presenting this course. Non-financial: Danny Shin, Simone Gill, and Christine Helfrich have no relevant non-financial relationships to disclose.

- Content Disclosure: This learning event does not focus exclusively on any specific product or service.

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Overview

- Learning Outcomes
- Introduction to Medically Complex Client
- Overview of Research Context
- Fall Prevention Intervention
- Impact of COVID-19 and lessons learned
- Summary and Q&A

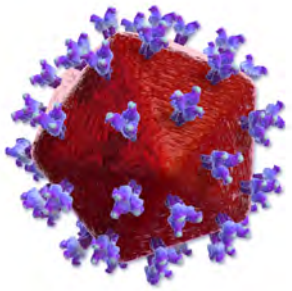
Learning Outcomes

After this course, participants will be able to:

- Learning Outcome 1: identify client factors, performance skills and performance patterns in people living with HIV with an elevated fall risk
- Learning Outcome 2: identify at least three characteristics that differ in people living with HIV who fell and did not fall
- Learning Outcome 3: list an evidence-based fall risk assessment
- Learning Outcome 4: recognize ways to pivot research participant recruitment and retention during COVID-19
- Learning Outcome 5: identify a novel fall risk intervention for people living with HIV during COVID-19

Introduction: Medically Complex Client

- People living with HIV (PLWH)
- Highly active antiretroviral therapy (HAART)
  - Viral load undetectable
    - Less harm to immune system
    - Reduces chance of passing HIV to partners
- Side effects
  - Nausea
  - Dizziness
  - Fatigue
  - Pain



Aging population

- Estimated that half of people living with HIV (PLWH) are 50 or older (Greene et al., 2013)

Accidental falls

- Unexpected event in which an individual experiences a loss of balance and come to rest on the floor
- Most common cause of non-fatal injury (Englander et al., 1996)
- Serious medical consequences
  - fractures and emergency room visitations for 2.8 million older adults (CDC, 2015; Wolinsky et al. 1997).

PLWH and falls

- Up to a third of middle-aged people living with HIV infection experience a fall each year (Erlandson et al., 2012).
- Fractures following a fall are 40-60% more common in PLWH than the normal population (Kim et al., 2018).
- Fall rate in middle-aged adults with HIV were as common as uninfected persons aged 65 and older (Erlandson, 2012).
- Consequences
  - Fractures following a fall are 40-60% more common in PLWH than the normal population (Kim et al., 2018).

Risk factors for falls

- Polypharmacy (Gnjidic et al., 2012)
  - five or more medications (Gnjidic et al., 2012)
- Multimorbidity (Kim et al., 2012)
  - Presence of two or more chronic conditions
- Frailty (Erlandson et al., 2019)
  - Fried Frailty Phenotype (Fried et al,. 2001)
- Substance use (Kim et al., 2019)
  - Alcohol, and drugs

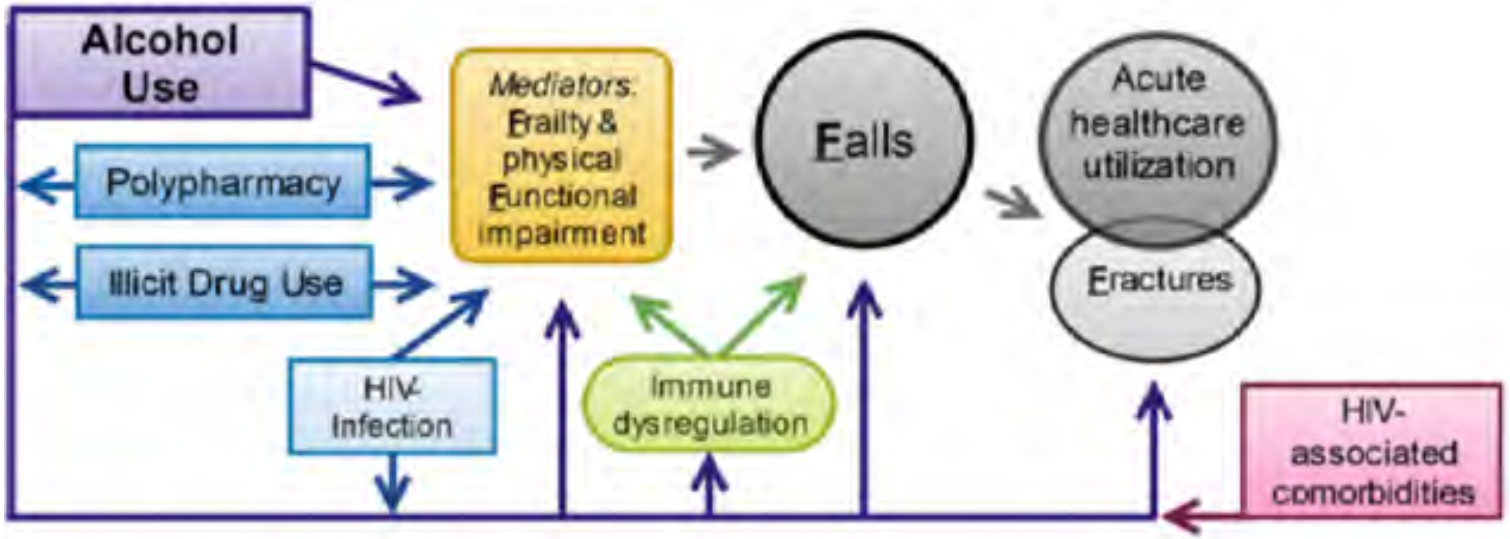
Frailty

- Frailty (Collard et al., 2012; Morley et al., 2013)
  - Vulnerability health outcomes
  - Reduced capacity to stressors
  - Loss of physiological function

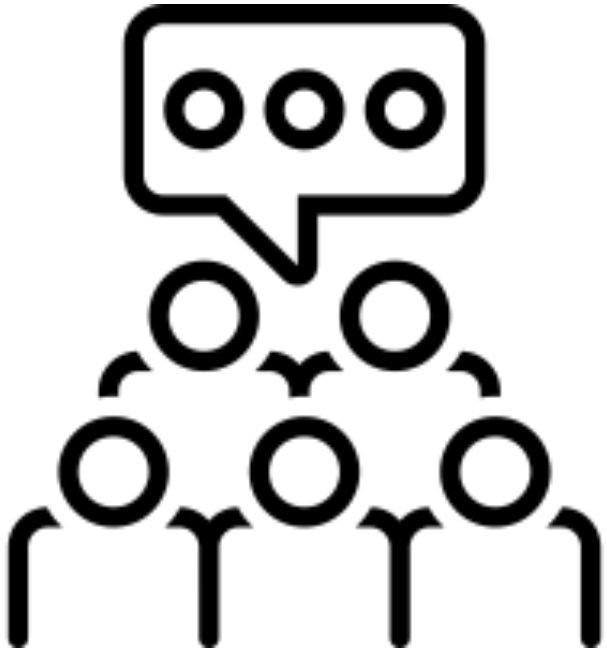
- Fried Frailty Phenotype (Fried et al., 2001)
  - Slowness
  - Weakness
  - Poor endurance and energy
  - Unintentional weight loss
  - Low physical activity level

Research context

Conceptual model



Qualitative



Qualitative findings

- Motor Function
- Assistive Devices
- Reminders
- Strategies for adapting environment

Quantitative

- Existing database
- Inform intervention

Existing database

- Descriptive Cross-sectional study (Baseline)
- Participants: 248 (Mean age= 52.3, *SD*= 10.4) PLWH and substance use
- Primary Care Clinic & Community Health Center
- Inclusion Criteria
  - Documentation of HIV
  - Past year substance dependence
  - Ability to speak English
  - 18+
  - Willingness to provide contact information

Experimental procedure

- In-person interview
  - Demographics
  - AIDS Clinical Trials Group Fall History Questionnaire
  - 14-Day Timeline Follow back
  - Modified Falls Efficacy Scale
  - Center for Epidemiologic Studies Depression Scale Short

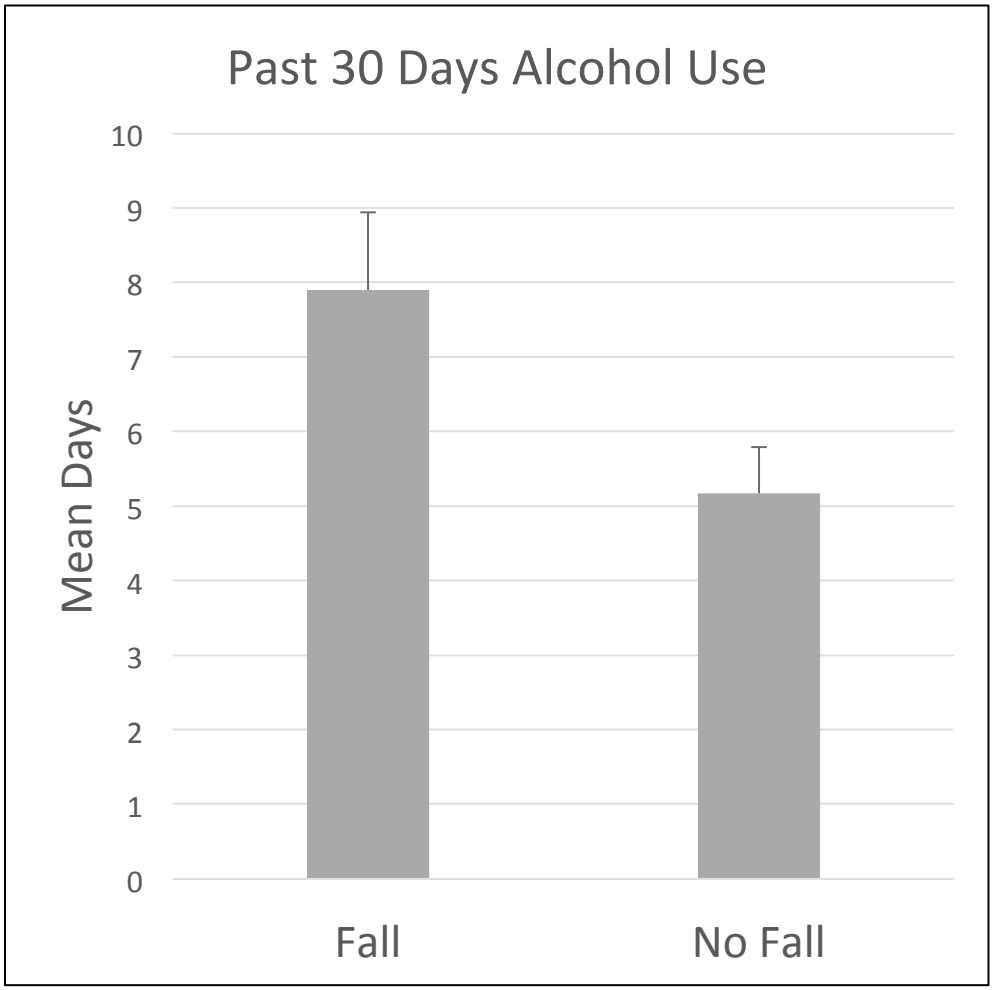
Experimental Procedure (cont.)

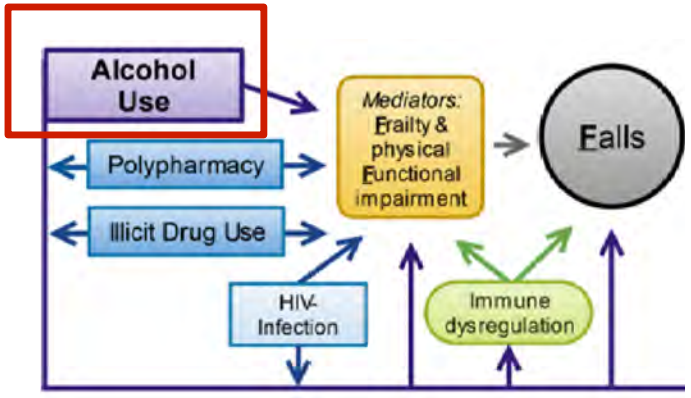
- Physical Tests
  - Short Physical Performance Battery (SPPB)
    - Static balance
      - Side-by-side
      - Semi-tandem
      - Tandem
      - Single leg stance
    - Dynamic balance
      - Chair stands
      - Repeated chair stands
    - 4m walk
  - Grip Strength

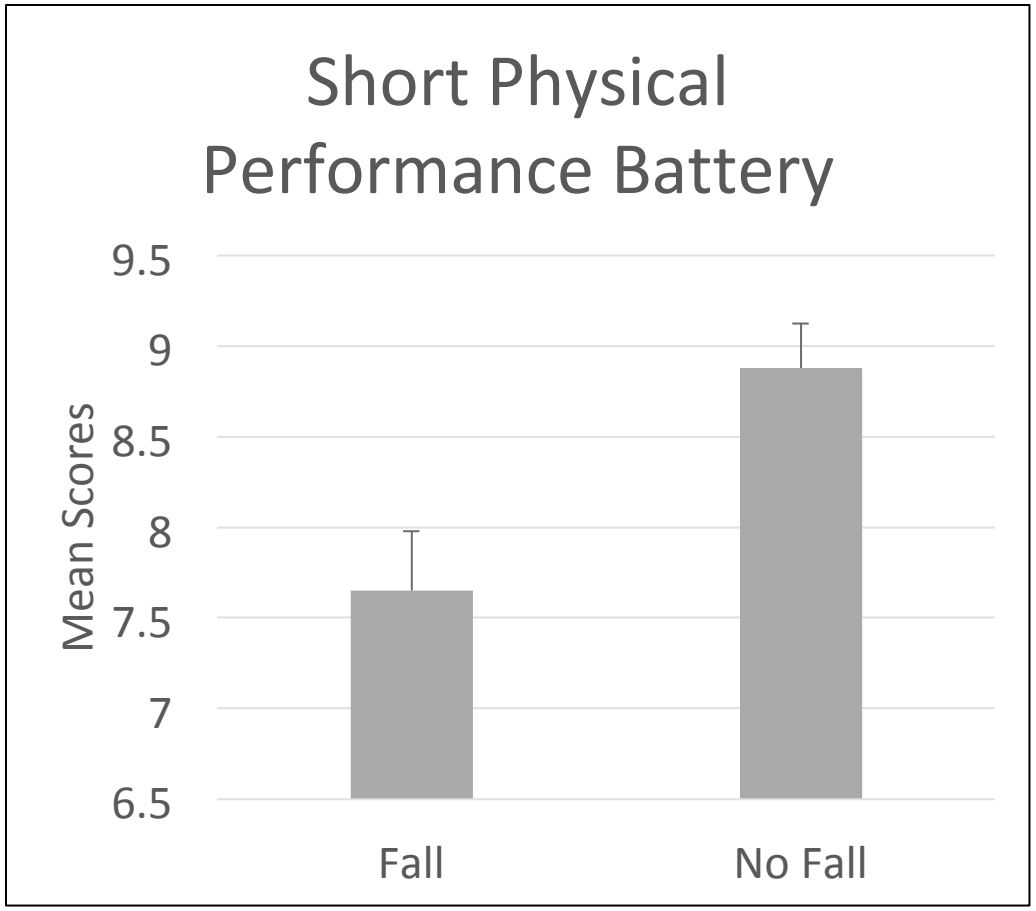
Quantitative Findings

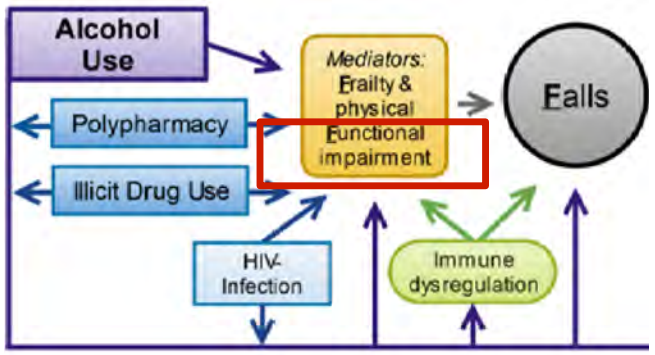
- Demographics
  - 14.5% Experienced homelessness in the past 6 months
  - Age: 52.28
  - 75.4% Unemployed
  - 35.5% Heavy drinking past 14 days

- Living environment
  - Unstable/chaotic environment
  - Precariously housed
  - Accessibility/barriers
  - Basic needs are priority
  - Support/Assistance unreliable/inconsistent


Past 30 Days Alcohol Use
Mean Days
10
9
8
7
6
5
4
3
2
1
0
Fall
No Fall


Alcohol Use
Polypharmacy
Illicit Drug Use
Mediators: Frailty & physical Functional impairment
Falls
HIV-Infection
Immune dysregulation


Short Physical Performance Battery
Mean Scores
9.5
9
8.5
8
7.5
7
6.5
Fall
No Fall


Alcohol Use
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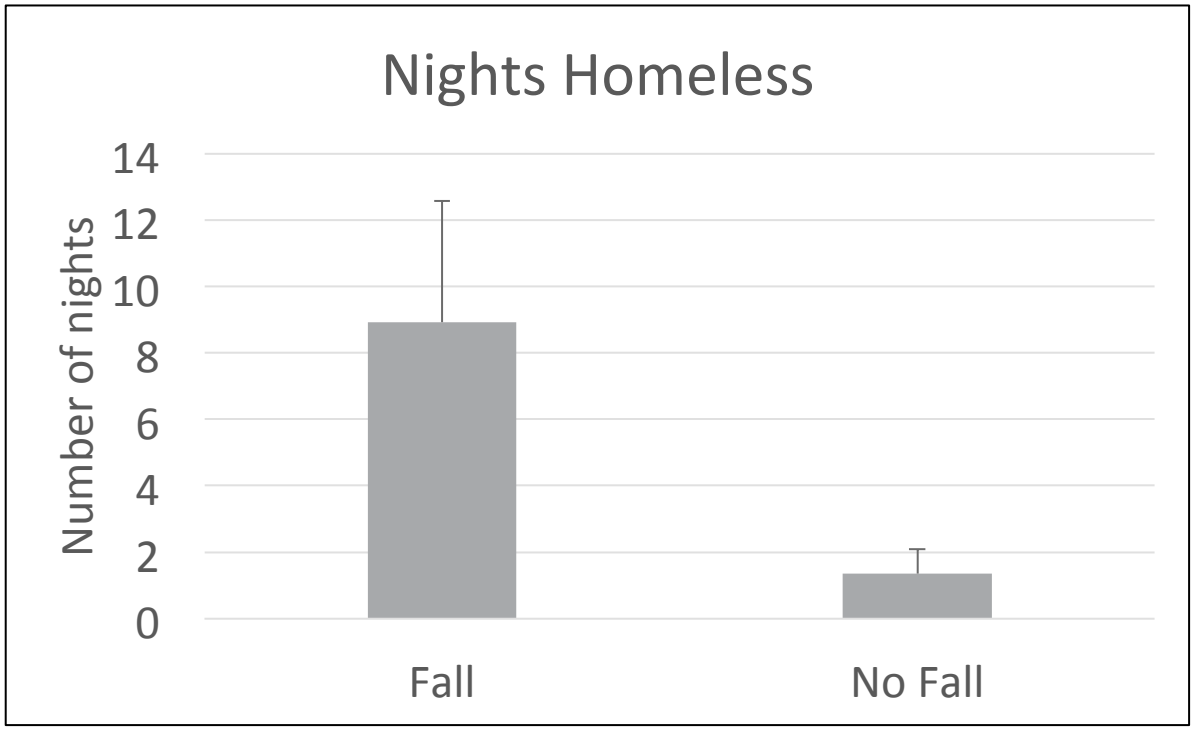
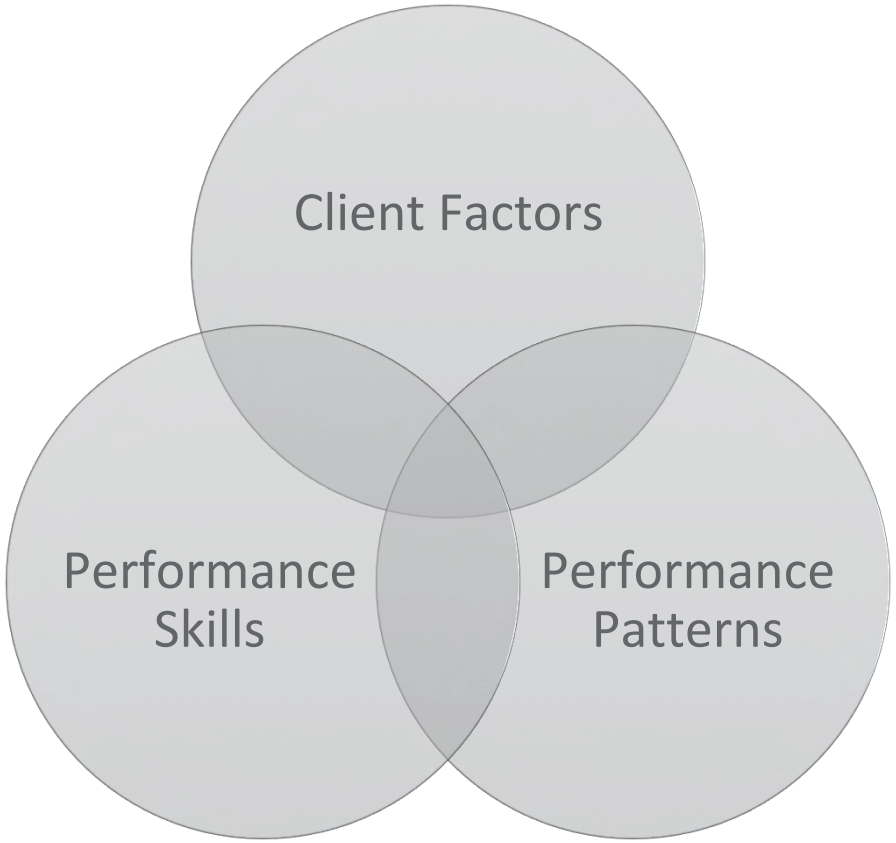
- 14.5% Experienced homelessness in the past 6 months



Fall vs. Non-Fall

- Sedatives
- Fatigue
- Light-headed
- Concerns with losing balance
- Depression
- Self-Efficacy

People living with HIV- Fall Risk



Other considerations

- Bhasin et al. 2020
  - Limitations informed the intervention
- MOS-HIV
  - Difficulty reasoning and problem solving
  - Trouble with attention
  - Skip meals or insufficient resources

Fall Risk Assessment

- CDC STEADI Algorithm for Fall Risk
  - Stay Independent: 12 question tool
  - Three clinical questions
- Feels unsteady when standing or walking?
- Worries about falling?
- Has fallen in the past year?
  - If YES ask, “How many times?” “Were you injured?”

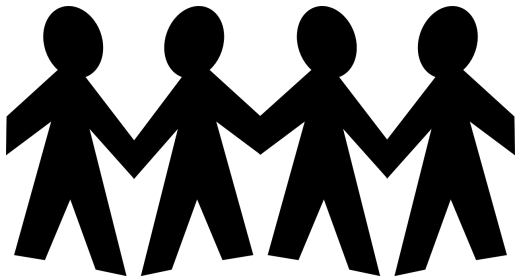
Stay Independent: 12 question tool

- I have fallen in the past year.
- I use or have been advised to use a cane or walker to get around safely.
- Sometimes I feel unsteady when I am walking.
- I steady myself by holding onto furniture when walking at home.
- I am worried about falling.
- I need to push with my hands to stand up from a chair.
- I have some trouble stepping up onto a curb.
- I often have to rush to the toilet.
- I have lost some feeling in my feet.
- I take medicine that sometimes makes me feel light-headed or more tired than usual.
- I take medicine to help me sleep or improve my mood.
- I often feel sad or depressed.

Pre-intervention Assessments

- Canadian Occupational Performance Measure (COPM)
- Gather info
  - Vision
  - Resources
  - Medication
- Motor Function
  - Short Physical Performance Battery
  - Grip Strength
- Frailty

Intervention



Areas addressed

- Motor Function
- Assistive Devices
- Reminders
- Strategies for adapting environment

Post-intervention Assessments

- COPM
- Gather info
  - Vision
  - Resources
  - Medication
- Motor Function
  - Short Physical Performance Battery
  - Grip Strength
- Frailty

Lessons learned…

- Recruitment
  - Passive
  - Recruit participants from previous studies
- Intervention
  - Hybrid
    - In-person
      - Assessments
    - Virtual
      - Groups
      - Home exercise
    - Hybrid
      - Assessments

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