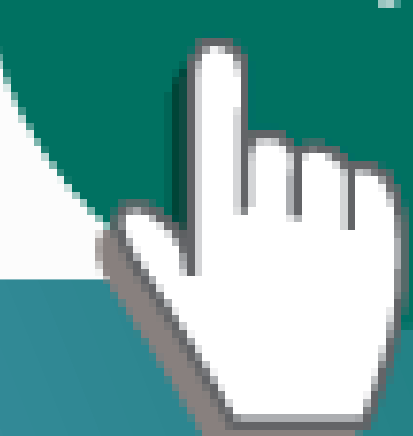




A VIRTUAL MULTICOMPONENT FALL PREVENTION PROGRAM FOR COMMUNITY-DWELLING OLDER ADULTS

Jessica Jauregui, OTD/S | Site Mentor: Diana Bonilla, MSG | Faculty Mentor: Dr. Kathryn Duke, OTD, MATESOL, OTR/L

front porch



DCE SITE DESCRIPTION

The **Front Porch Center for Innovation and Wellbeing (FPCIW)** is a nonprofit organization based in Glendale, California that operates under Front Porch (FP), a larger nonprofit organization that provides housing and aging-in-place services that meet the diverse needs of older adults living throughout its 18 senior living communities across the Bay Area and Southern California. The FPCIW **explores how technology can support and enhance the lives of older adults** living in the FP retirement communities **with the goal of improving their well-being, independence, and quality of life**

Mission Statement: "...To be experts in identifying and understanding real-world human needs and working through cultural and socio-economic barriers to craft novel solutions that change lives and make a difference" (FP Communities and Services, 2025)

SUMMARY OF NEEDS ASSESSMENT

1. Accessible and evidence-based multicomponent fall prevention program (FPP) for FP independent-living residents
2. Address gaps in resident knowledge regarding the impact of diet, alcohol, and medications on fall risk
3. Impact evaluation of the FPCIW's Brain and Balance pilot program

LITERATURE REVIEW

COMMON THEMES

- Documented effectiveness of group-based multicomponent occupational therapy (OT) FPPs for community-dwelling older adults aged 65 and older (Elliott & Leland, 2018)
 - Importance of addressing fall-related psychological concerns, such as fear of falling (FoF)—use of cognitive behavioral therapy-based strategies can be an effective solution (Chua et al. 2019; Payette et al., 2016; Whipple et al., 2018)
 - Fostering of social connections is critical to the client-centeredness of a group-based FPP (Howard et al., 2018)
- Importance of addressing fall risks and prevention in the outdoor community (Chippendale & Raveis, 2017)
- In-person evidence-based FPPs can feasibly be adapted for virtual delivery with the right supports in place (Gell et al., 2021; Kohn et al., 2023; Lach et al., 2023)

IDENTIFIED GAPS

- Lack of ongoing multicomponent FPPs in many FP communities
- Unmet education needs (knowledge of outdoor environmental and behavioral factors and use of self-advocacy strategies) to address outdoor fall risks and prevention
- Need to capture qualitative data regarding participant experience of a virtual FPP

PROBLEM STATEMENT

Group-based multicomponent OT FPPs have been demonstrated to be effective in improving fall-related outcomes in older adults aged 65 and older. Despite this, there is a lack of accessible evidence-based multicomponent FPPs being offered to residents living throughout the FP senior living communities to maximize their ability to age in place as safely and as independently as possible

LEARNING OBJECTIVES

1. Develop a virtual multicomponent FPP for community-dwelling older adults living independently in the FP communities
2. Implement and evaluate the effectiveness of the program
3. Contribute to the impact evaluation of the FPCIW's Brain and Balance pilot program

PROJECT DESCRIPTION + IMPLEMENTATION

PRIMARY FOCUS AREA: PROGRAM DEVELOPMENT

PURPOSE FEARLESS STEPS is a six-week virtual multicomponent FPP for community-dwelling older adults designed to **increase knowledge** of the multifactorial nature of fall risks, **increase confidence** in ability to implement fall prevention strategies at home and in the community, and **decrease FoF**

PROGRAM STRUCTURE

- Workshop series: Six one-hour-long live workshops conducted via Zoom once/week
- Digital educational handouts provided via email after each workshop
- Capstone student provided 1:1 support as needed via phone, text, email, or Zoom

PARTICIPANTS

- Convenience sampling of **nine program participants (three lost to follow-up)**
- Four focus group participants

FULL PROGRAM OUTLINE AND PROJECT IMPLEMENTATION TIMELINE

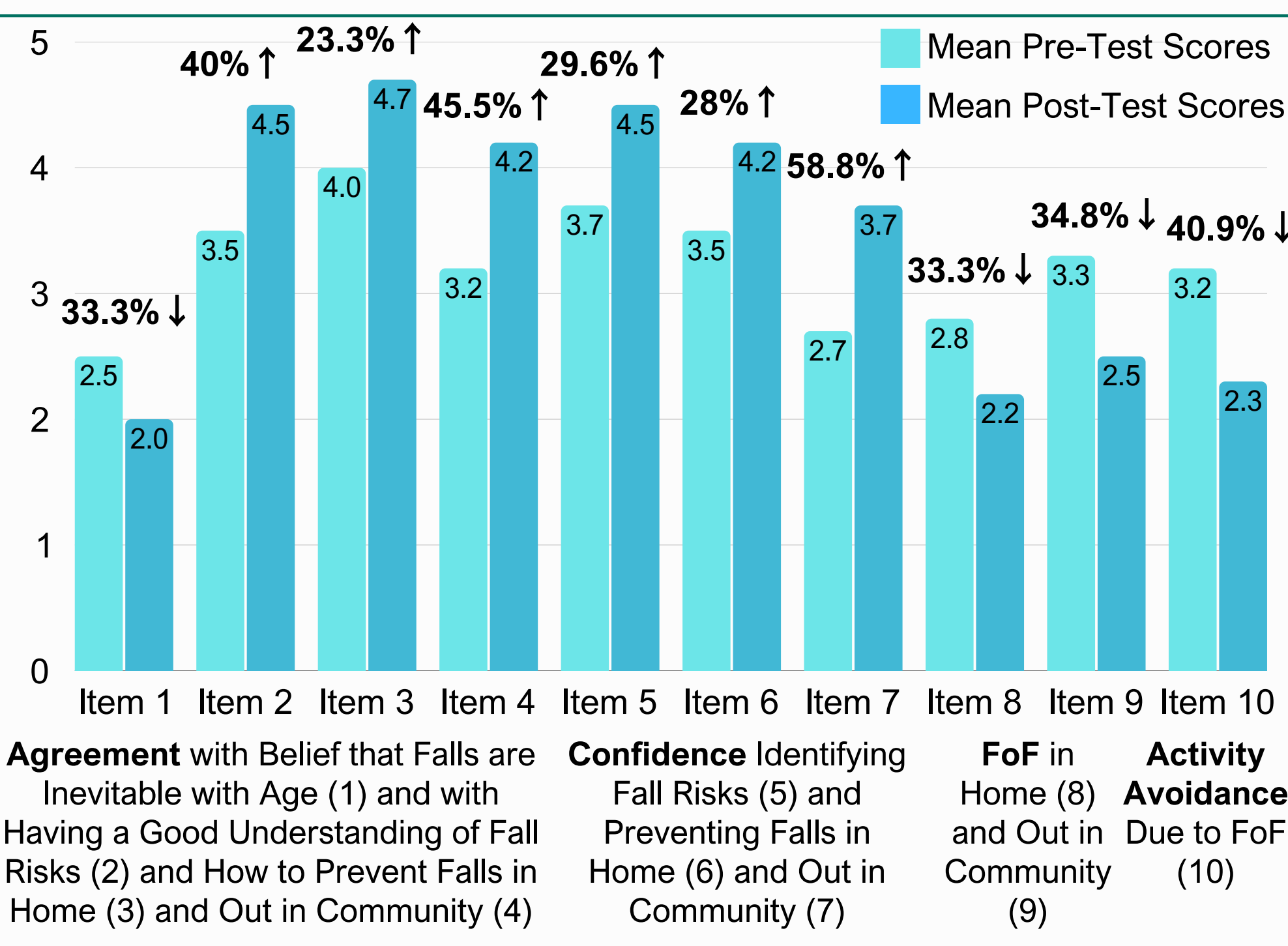


PROGRAM EVALUATION DESIGN

- Mixed methods (non-standardized online pre/post survey and virtual follow-up focus group)

PROGRAM OUTCOMES

QUANTITATIVE FINDINGS (N = 6)



1. Improvements Across All Survey Items
2. Statistically Significant Improvements ($p < 0.05$)
 - Knowledge of fall risk factors (2) and how to prevent falls in home (3)
 - Confidence preventing falls in home (6)
3. Remaining Items (Except 8 & 9) Approached Statistical Significance
4. Moderate ($r = 0.47$) to Large ($r = 0.61$) Effect Sizes Suggest All Improvements Were Clinically Meaningful

QUALITATIVE THEMES (N = 4)

Increased Knowledge of Fall Risk Factors and Prevention Strategies

"Knowing what I know now, it doesn't seem so hopeless...I feel like I'm more motivated to try to use some of these [strategies]...because I know every little change can really make or break it."

Proactive Behavior Changes to Reduce Fall Risk

"I saw...holes that would catch your heel that needed to be filled...I reported that [to safety committee] and...[it] got taken care of...If I see something like that...I'll say something now because of this class."

Enhanced FoF Self-Management

"I know there are ways to get around it [my FoF] now and to change my perspective on it...the first session [FoF management] challenged me about getting out more...You still need to get out and just be careful or find a safer way of doing it."

A Positive Virtual Experience

"Glad I was able to hear from others...it made me feel less alone and I could relate...I...thought it would just be you talking to us, but giving us activities to do together and having us share made it feel more personable."

DISCUSSION

- Improvements in all outcome measures support effectiveness of program in empowering community-dwelling older adults to mitigate their fall risk
- Qualitative findings strongly supported survey findings and reflect previous research that highlights effectiveness of cognitive behavioral therapy-based strategies in facilitating FoF self-management and reducing impact of FoF on participation in meaningful occupations
- Program enhanced participants' ability to recognize the personal value and importance of engaging in fall prevention strategies
- Participants lost to follow-up were older and had more baseline falls, limiting ability to assess the program's effectiveness for those at highest risk

OT IMPLICATIONS

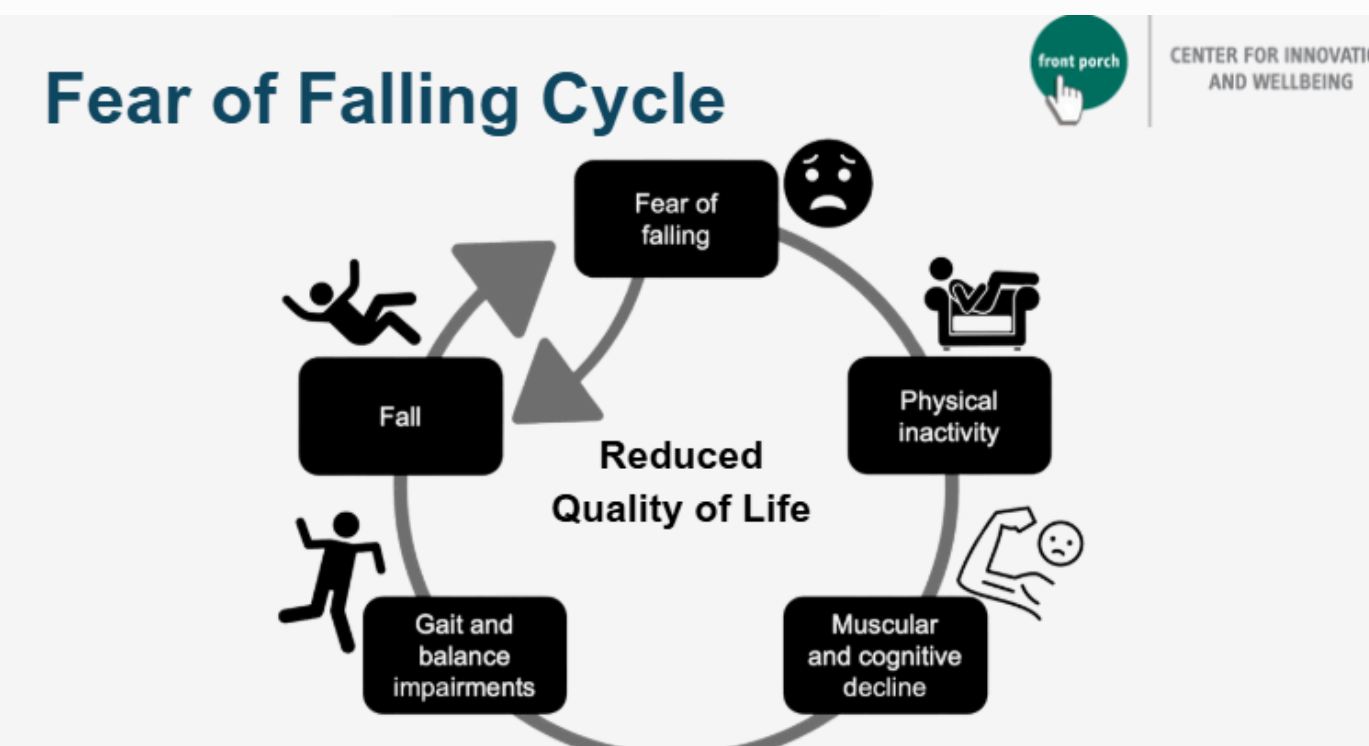
- Emphasis of a holistic approach to fall prevention through delivery of multicomponent interventions that take into account the psychological and behavioral aspects of fall risk
- Critical role of OT in community health promotion and aging in place services among older adults, particularly for those with limited access to in-person services

FUTURE DIRECTIONS

- Larger sample size
- Long-term follow-up to assess the sustainability of behavioral changes, FoF self-management, and continued confidence in implementing fall prevention strategies to refine best practices for delivering OT FPPs virtually
- Explore integration of on-demand workshops into future implementations of complementary initiatives at the FPCIW, such as the Brain and Balance program
- Explore the larger-scale supports needed to sustain long-term social connection, engagement, and motivation in virtual FPPs with larger sample sizes

SCHOLARLY DELIVERABLES

- On-demand workshops
- Digital educational handouts and resources
- Workshop presentation slides (editing access for DCE site only)
- Findings report for DCE site dissemination
- Program evaluation tools



ACKNOWLEDGEMENTS

My deepest gratitude to Dr. Kathryn Duke, Diana Bonilla, and Jennifer Lee for their unwavering guidance, support, patience, and invaluable feedback. I would also like to express my heartfelt gratitude to the FP residents who participated in this program and so vulnerably shared their lived experiences with me and their peers. Thank you to the FP and FPCIW staff for aiding in recruitment efforts and for recognizing the value of this program. A special thank you to my family and my doggy Lola for their continuous love and support. Each of you has been instrumental in my personal and professional growth, and I would not be where I am without you all.

REFERENCES

