

IMPLEMENTING MULTIFACTORIAL EDUCATION MODULES WITH OLDER ADULTS: INDIVIDUALIZED AND INTERACTIVE FALL PREVENTION EDUCATION

Salvador Chávez, OTS; Jocelle Flores, OTS; & Rachelle Yambao, OTS

Thesis Advisor: Susan Morris, PhD, OTR/L

Occupational Therapy Department, Dominican University of California

Introduction

- 1 in every 3 community-dwelling adults, age 65+, report a fall each year (CDC, 2015).
- Falls result in 85 % of all injury-related hospitalizations and 95 % of hip fractures for older adults (OAs) (Kannus, 2005).
- Effective fall prevention interventions need to address both intrinsic and extrinsic risk factors related to falls (Cameron, Schneider, & Gilchrist, 2015)
- Community-dwelling OAs may have limited access to individualized fall prevention education (Vivrette, 2011).
- Consultation with First Responders of the Novato Fire District indicated a need for client-centered and individualized education with community-dwelling OAs when designing and implementing interventions.

Project Purpose

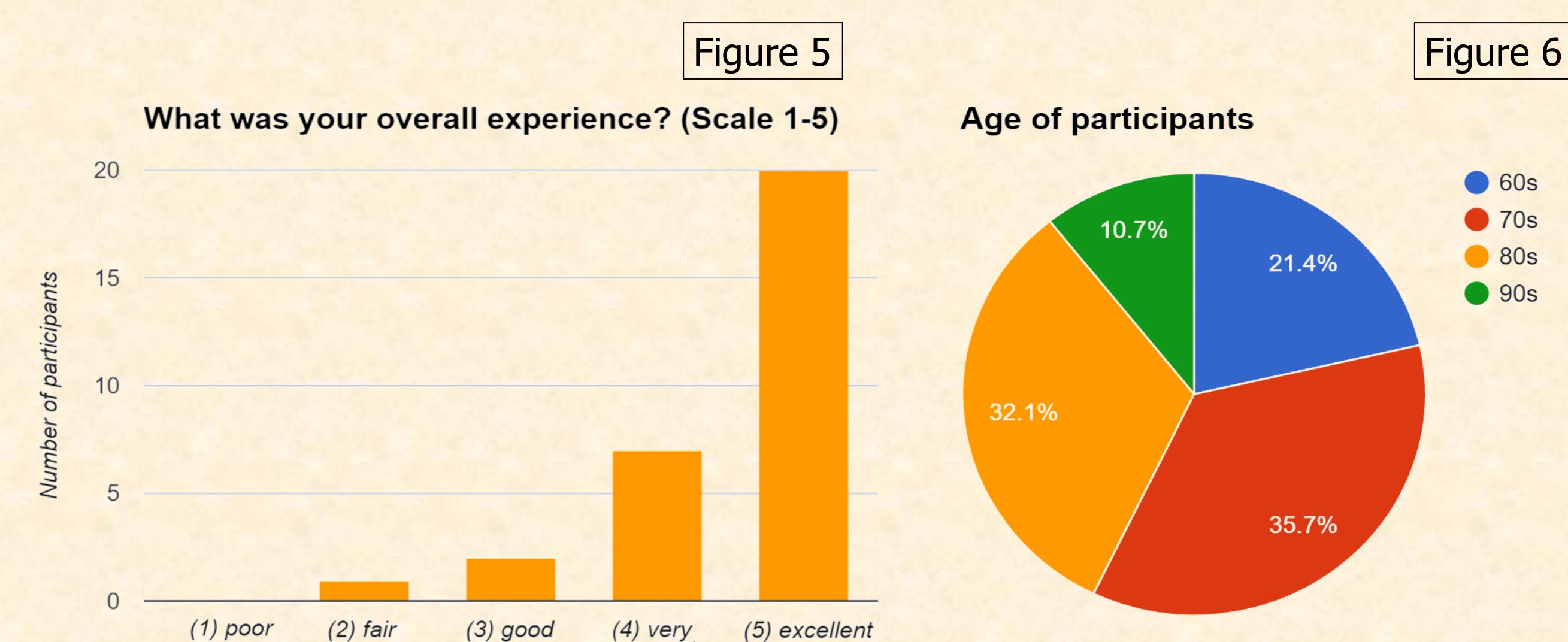
- A conducted assessment based on the current literature and additional input from First Responders of the Novato Fire District indicated a need for fall prevention education for community-dwelling OAs that:
 - Is more personalized than what is provided in brochures
 - Helps participants to understand their personal risks, and associated recommendations to prevent the likelihood of falls
 - Provides opportunities for 1:1 interactions in a community setting

Project Implementation

- Developed a series of individualized and interactive education modules to be implemented in a community setting. *(Figure 1)*. Participants move sequentially through each module dedicated to a fall related factor.
- **Module 1 & 2** *Determining Personal Fall Risk*: OAs are screened via a Fall Risk Questionnaire to identify their personal risk factors. Potential risks include previous incidents, fear of falling, use of medications, and diminished strength and endurance. OAs are then administered the Functional Reach Test (FRT) to determine their likelihood of a fall.
- **Module 3** *Home Safety*: Interactive module uses a 3D Display with removable items, to encourage active discussion regarding hazards, and customized recommendations for home modifications. *(Figure 2)*.
- **Module 4** *Polypharmacy*: Pharmaceuticals that may have symptoms or side effects that increase fall risk are reviewed, in addition to resources that may aid in discussions with participants' healthcare providers.
- **Module 5** *Fear of Falling*: 1:1 discussion to heighten individual awareness of fear of falling (FoF), and how it may impact daily life. Interaction encourages OAs to express their concerns and identify healthy attitudes and strategies to manage their fear in order to stay cautious and safe.
- **Module 6** *Balance Exercises*: Handouts regarding simple preventive exercises to enhance strength and balance are provided to OAs. Home exercises are demonstrated and completed alongside OAs. *(Figure 3)*.
- **Module 7** *Completion of education modules*: OAs complete an evaluation survey and are provided with individual folders containing additional fall prevention material and other community resources.

Project Evaluation

- Education modules piloted at two senior community centers in Marin County (San Rafael & Novato, CA).
- A majority of the 30 participants were >70 years old and were categorized as community-dwelling. *(Figure 6)*.
- 45% of participants indicated greatest satisfaction with balance exercises; making it the most favorable of the modules. *(Figure 4)*.
- 90% of the 30 participants rated their experience as "very good" or "excellent." *(Figure 5)*.
- Participants additionally indicated that they appreciated the attentiveness of the individualized approach. *(Figure 4)*.

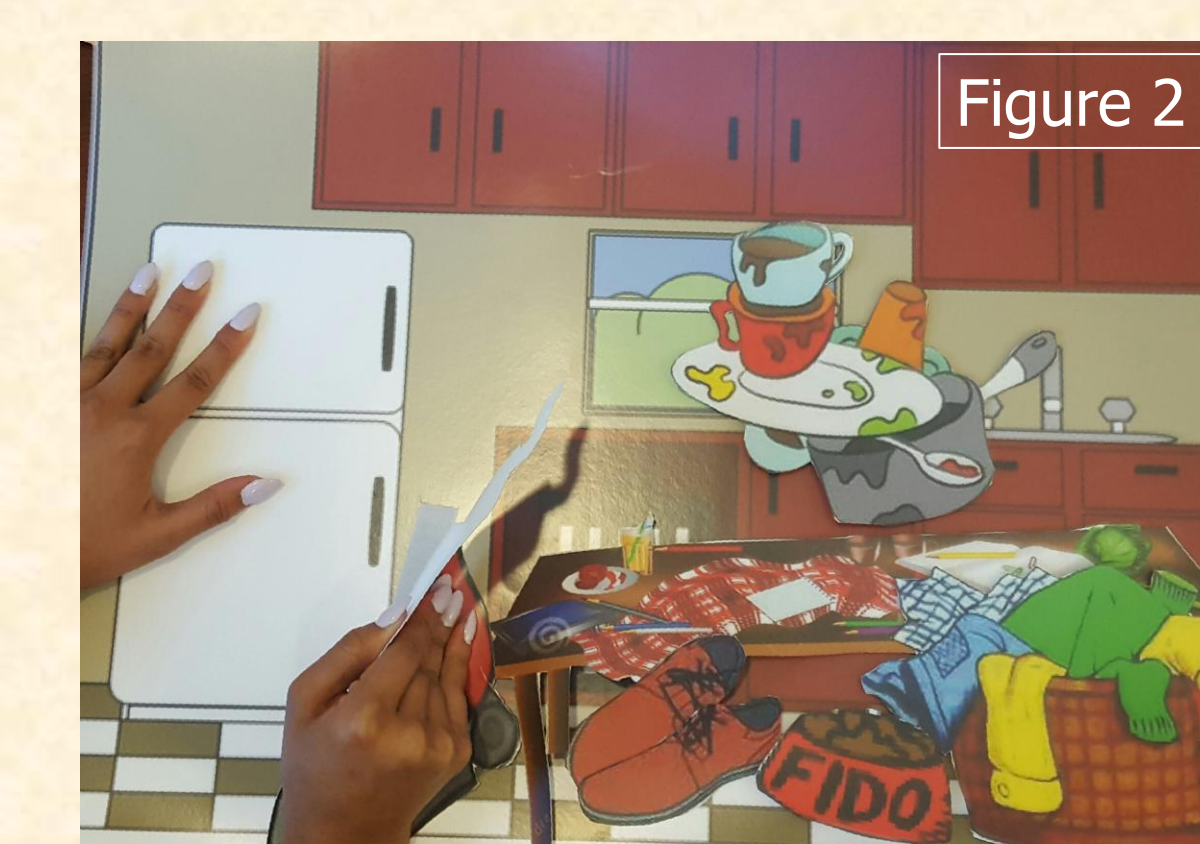
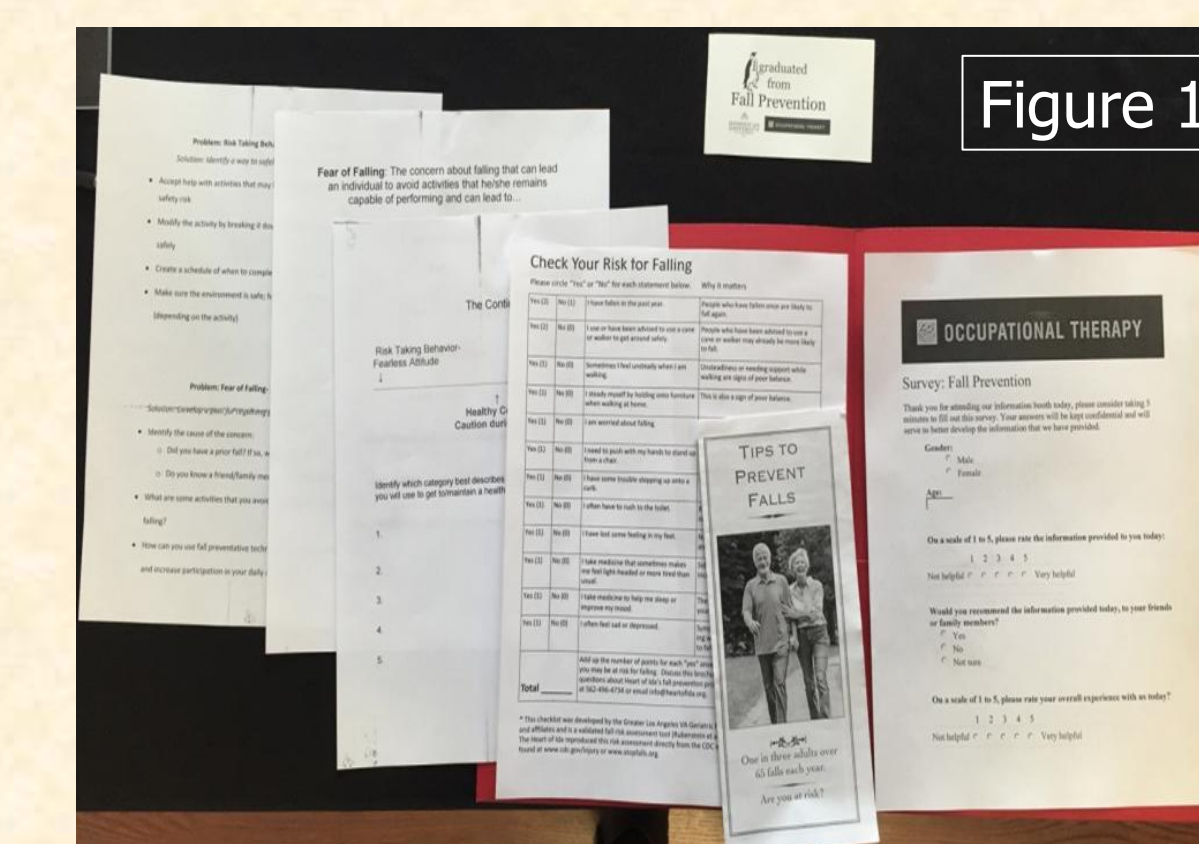


Participant Testimonials

- "I found all...most helpful and professionally delivered."
- "Very important. Keep up the good work!"
- "I felt the group was very well informed."
- "Excellent presentation. Everyone was very professional, friendly & helpful."
- "Very professional, polite, fun, great students."

Conclusions

- Due to the need for personalized and interactive fall prevention education opportunities for community-dwelling OAs, a set of education modules were developed that could be presented in a community setting.
- Participants responded positively to the education modules, and indicated that they valued the strength and balance exercises most highly.
- Individualized attention and information is well received by community-dwelling OAs and highlights the importance of client-centered practices for healthcare providers, including occupational therapists.



Implications for Practice

- Workshops are beneficial in providing generalized information to large groups, however, 1:1 education modules may be effective in relaying information to individuals in small group settings.
- The development and implementation of individualized and interactive education modules may provide the opportunity to reach community-dwelling OAs who do not otherwise receive this level of individualized instruction.
- OAs appreciate and benefit from 1:1 demonstration and participation in strength and balance exercises that can be completed at home.

Acknowledgments

Thank you to all who were involved in this project-based capstone solution including the professors and chair of the Department of Occupational Therapy at Dominican University of California, Novato Fire District, Margaret Todd Senior Center, Whistlestop Senior Services, our capstone advisor, & our friends and family. Thank you all for your support and encouragement, we couldn't have done it without all of you and are proud of our final product.