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Abstract

Falls among older adults pose a significant financial burden to the healthcare system and an obstacle to aging in place safely. The present study sought to understand if educational materials on falling and fall prevention helped allow People Working Cooperatively customers to age in place because of perceived and actual safety within their home. The aim of this project was to define the way in which promoting a safe home environment improved health outcomes. Methods for this project included an initial visit to the participant's home where a pre-survey was completed and the home was assessed for repairs that could improve the safety of the home. During the placement of the interventions, an education flyer was explained to the homeowner with information regarding how to prevent falls and what to do if one does fall. 10 weeks after the repairs a post survey was conducted over the phone with the homeowner to measure the success of the educational program in conjunction with the repairs in making the homeowner safer in their home. Overall, participants viewed their experience with PWC in a positive light with most reporting that they now feel safer navigating their homes and that they have learned something from the process.

Introduction

People Working Cooperatively (PWC) is a nonprofit organization that seeks to improve living conditions for low-income homeowners in the Greater Cincinnati area. Recognizing the connection between home and health, PWC seeks to provide their constituents with living conditions that better serve their needs. PWC frequently and, perhaps, most impactfully serves two notable vulnerable populations within the community: the elderly and school-aged children. PWC's belief that housing conditions impact overall health is well supported by multiple research studies including those conducted by Beck et al. Recognizing both the merit and feasibility of interventions aimed at preventing poor health outcomes, our group decided to specifically tackle the issue of older people falling.



Before



After



Before



After

Methods

Preparation of Educational Materials:

We began this project by compiling different educational resources related to fall prevention in older adults. The pamphlet includes information about the epidemiology of falls, patient-facing tips for the prevention of falls and a pictogram related to how to get up after falling.

Home Assessments and Pre Surveys:

Individuals willing to participate in our program were identified. Two members of our LC accompanied and assisted PWC technicians on their first visit to 6 different individual's homes. During this visit, home assessments aimed at identifying barriers to mobility and safety were identified. Rugs posing tripping hazards, poorly placed furniture and lack of rail or grab bar assistance on stairs and in bathrooms were noted. In addition to performing home assessments, during this initial visit a Pre Survey was delivered. The survey was designed primarily to gauge how safe the clients felt in their homes.

Interventions:

We returned to the individual's home to assist with the needed renovations identified on the home assessment visit a few weeks later. At this time, we educated the clients about fall prevention using our pamphlet, which was also left with the individuals.

Post Survey Follow-up:

10 weeks following the intervention visit, we contacted each of our clients by telephone to perform a post survey to begin to assess the efficacy of our education in terms of an increased feeling of safety.

Results

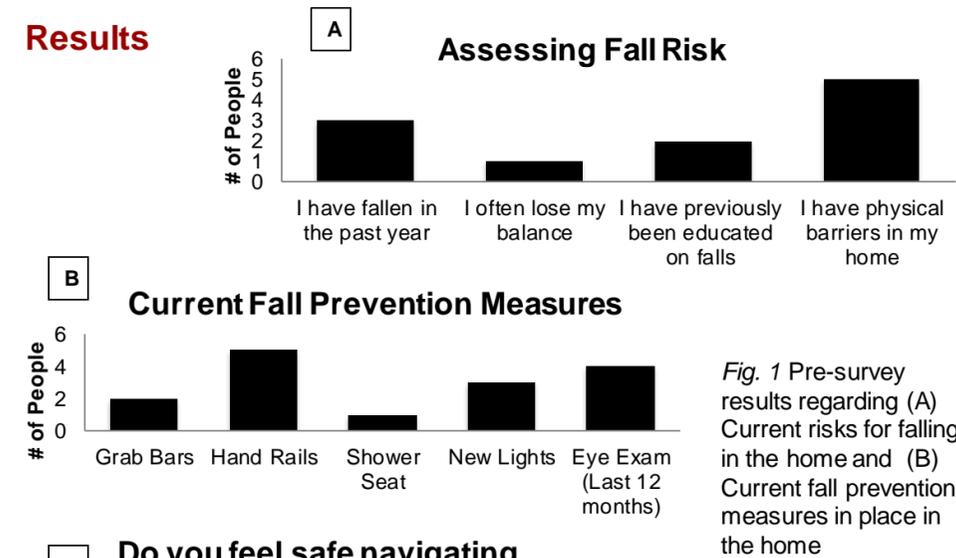


Fig. 1 Pre-survey results regarding (A) Current risks for falling in the home and (B) Current fall prevention measures in place in the home

(A) Do you feel safe navigating your home?

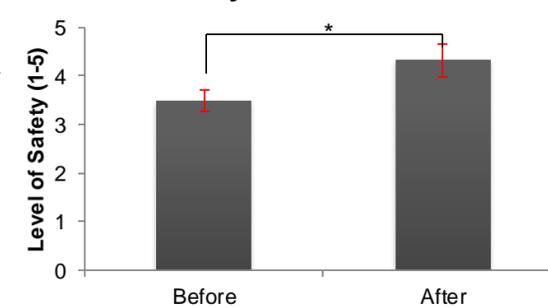
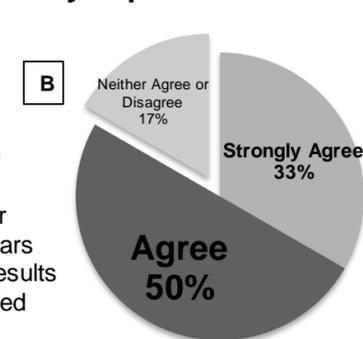


Fig. 2 (A) Comparison of survey results before/after intervention (1 = very unsafe, 5=very safe). Error bars represent SEM, *p<0.05, paired t-test (B) Survey results regarding participants views on whether they learned something from their experience

(B) I learned something from my experience with PWC



Discussion

Pre-survey data, as seen in Figure 1, showed that all participants had one or more risk of falling and only 50% had been educated on falls in the past. Despite many having fall prevention measures in place, there still persisted an adequate need for intervention and education.

Comparing pre- and post-survey responses to the question "Do you feel safe navigating your home?", there was a significant difference between perceived level of safety, with average responses of 3.5 and 4.33 respectively, as seen in Figure 2. 83% of participants reported learning something in the process. Responses to the closing question in the post survey, asking participants to summarize what they had learned from the experience included "I have learned how to have real safety in my home. I really appreciate how they've helped me and repaired things that I wouldn't be able to pay for myself. I loved that you all were very amenable and friendly when you came over." and "I'm happy that I can safely navigate to my basement for laundry and that I'm safer in the shower now."

The results suggest that education on fall prevention may be an effective method to reducing fall frequency among older adults. However, the size of the sample population precludes any definite conclusions regarding fall risk education. We hoped that the education we sought to provide, however brief, would empower PWC's clients to move more confidently through their repaired homes.

Conclusion

People Working Cooperatively is an organization that seeks to make home repairs for low-income clients who cannot otherwise afford them, with a goal of improving home safety and affordability. Our LC ran a pilot study introducing a fall-risk education program as an addendum to PWC's repair services while assisting PWC staff with the actual home repairs. Our goal was to provide PWC client with an extra layer of security that will hopefully have a salutary impact on their mental health. Although our sample size was too small to draw any definitive conclusions, we have the model and the tools in place in the event that PWC is interested in pursuing this program.

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