Improving Quality of Life for Elders Through Interdisciplinary Fall Prevention Initiatives and Bone Health Education

Lisa Slater, MSN, RN; Mary L. Wagner, MS, PharmD; Lori Morell, BA, CWC

1. Nurse Knowledge Research on Falls
   - A multi-site, cross-sectional study was conducted with nurses from 3 nursing homes, which used a randomized viewing of validated fall clinical vignettes by nurse participants.
   - 23 RNs and 24 LPNs subjects participated in the study.
   - Outcome data were evaluated and utilized in the development and implementation of fall prevention education programs for nurses.
   - Nurse knowledge of fall prevention and bone health was tested pre and post learning.

2. Project Healthy Bones
   - A single site study enrolled 53 participants (6 men; 34 women, average age 80±9.1 years). Project Healthy Bones programs were initiated to maintain elder fall prevention behaviors.

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   - Survey Tool Questions: Patient demographics, medical history, apathy evaluation scale, fear of falling survey, nutrition log, osteoporosis/nutrition/fall prevention quizzes, exercise attendance log, and PHB evaluation surveys were collected.
   - Geriatric Fitness Assessments: The functional reach, timed up and go, thirty second chair stand, tandem stand, single leg stand tests were done at baseline, midpoint, and at the end of the program.
   - Each class included 40 minutes of exercise and 20 minutes of education.
   - Educational demonstrations, notes of encouragement, incentives, samples of nutritious food and recipes, prizes, and reminders were used to promote participation.
   - Statistical analysis: The data for each subject were organized on an Excel spreadsheet. Baseline and post study data were analyzed using paired t tests.
   - Three Parker Home staff members were trained to execute and maintain the Project Healthy Bones program.
   - The course was led by trained Wellness staff.

Purpose

The purpose of this study is to understand how two complimentary eldercare research projects influenced the insightful development of Bone Health Awareness and Fall Prevention Initiatives for senior care recipients and staff nurses.

Background

1. A 2012 Parker funded study, Nursing Home Registered Nurses’ and Licensed Practical Nurses’ Knowledge of Causes of Falls, demonstrated significant knowledge deficits of fall prevention among both RNs and LPNs.

2. A Parker funded pilot study in 2012-2014, Project Healthy Bones (PHB) demonstrated that the program can improve, postural stability, strength, flexibility, knowledge and ultimately fall prevention in seniors.

Project Healthy Bones is a 24-week education and exercise program supported by the New Jersey Department of Human Services, Division of Aging Services. It is designed for older adults with or at risk for osteoporosis. Over 2,000 elderly New Jersey residents have participated in the program.

- Results of these studies were the impetus of Parker’s fall prevention program to engage nurses and elders in a multipronged approach to prevent falling, improve and maintain quality of life while engaging nurses in the promotion of quality care. IRB approval and informed consents were obtained for each study.

Rationale

- Improve nurses’ understanding of risk factors related to falls in senior care environments.
- Decrease fall risk in Long Term Care and Assisted Living Facility elders.
- Empower elders to have a better quality of life through education of fitness and nutrition classes to improve bone health.
- Participation allows elders to remain in place longer to stabilize physical and psychosocial well-being, thus decreasing hospitalizations for fall related incidents.
- Stronger bones reduce hip fractures due to improved postural stability.

Conclusions

- Adopting and interdisciplinary approach is a promising avenue for collaborative research between academia and long term care facilities to improve healthcare delivery.
- RN/LPN educational initiatives across the continuum of care benefit nurse care providers and care recipients.
- Project Healthy Bones classes are successfully run by the wellness staff.
- Initiatives can be developed that improve an elder’s fall risk, increase independence and promote quality of life.
- Next steps: Nurses and interdisciplinary healthcare providers lead fall prevention education, PHB classes and promote restorative therapy.

References


