The High Cost of Falls

- Falls are a major cost to society and individuals. In the United States, 1/3 of older adults fall each year with resulting direct medical costs of $30 billion annually.
- Falls are the leading cause of fatal and non-fatal injuries in older adults.
- 20 to 30% of those who fall suffer moderate to severe injuries.
- 40% of nursing home admissions are fall-related.
- People who sustain hip fractures have a 20% increased death rate the year after and 50% do not return to independence.
- Many older adults develop a fear of falling, limit their activity, and further increase their risk of falling.

What is Strength in Numbers?

- Recognizing the high rate and cost of falls among older adults in Western Massachusetts, the VNA & Hospice of Cooley Dickinson developed Strength in Numbers in 2008.
- Strength in Numbers is a six-week, evidenced-based, multi-factorial falls prevention program presented by VNA physical and occupational therapists.
- Groups of up to 20 older adults meet weekly.
- Strength in Numbers has been presented in: senior centers, churches & synagogues, retirement communities, and senior housing sites throughout Hampshire and Franklin Counties.

Strength in Numbers- Content

Session 1: Falls Risk Assessment
- Overview of program & introductions
- Statistics on falls
- Personal fall risk assessment

Session 2: Functional Tests & Strength Exercises
- Discussion of strength changes as we age
- Effects of exercise on strength
- Administration of Functional Reach, Timed Up & Go and Single Leg Standing assessments
- Instruction in resistive exercises

Session 3: Balance Program
- Strengthening exercises
- Balance exercise/activities
- Stretching as part of your exercise program
- Tai Chi
- Walking Program
- Supportive footwear
- Assistive devices

Session 4: Medication & Falls
- Medication metabolism altered with aging related to kidney, liver function-changes
- Increased fall risk associated with taking 4 or more medications - most Seniors take ~9 medications
- Falls also associated with sedative & pain medications, diuretics, heart & blood pressure medications

Session 5: Vision
- Age related changes in vision: sensitivity to light changes, reduced night vision, depth perception, glare, & contrast
- Effects of diseases/conditions on vision: diabetes, cataracts, glaucoma, macular degeneration, MS, & CVA
- Vision interventions to reduce falls

Session 6: Home Safety Modification & Graduation Day
- Review Home Safety Checklist: discussion & education
- Reflect on sessions
- Participant evaluation of program

3 Month Follow-up: Review and assess: falls, environmental changes, exercise routine, medication management.

Program Content

Accomplishments 2008-2012

- Over 1300 older adults have completed Strength in Numbers programs.
- Retention Rate for the six weeks of the program 70% to 91%.
- 20-55% reduction in falls among those returning for follow-up.
- 24-28% increase in Single Leg Standing.
- No adverse outcomes.
- Overwhelmingly positive feedback.
- Train the Trainer Program: over 50 physical and occupational therapists were trained in the program, fall risk assessment and treatment.
- DVD was produced for the exercise program to be used by participants.
- A refresher course was presented in 2012.

Plan for 2014

- Produce local Cable TV Strength in Numbers program.
- Collaborate with Cooley Dickinson Hospital Emergency Department to identify individuals at risk for falls (based on presenting complaint), and provide assessment or refer to appropriate providers.
- Continue to present Strength in Numbers in our local communities.
- Emphasis on coaching participants.

Funding

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