Stepping On: Cancer Edition
A fall-prevention intervention for older adults with cancer

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Disclosures

• Nothing to disclose
Background

• Older adults with cancer are at greater risk for falls than people without cancer
• 20-50% of older patients with cancer have fallen in the past 6 months
• Falls are preventable
• Stepping On, a 7-week group-based self-management fall-prevention intervention reduces falls in community-dwelling older adults by 31%\(^1\)
• Stepping On’s effectiveness in older adults with cancer is unknown

\(^1\)Clemson JAGS 2014; 52:1487-94
Methods

- Mixed-methods study
- Adaptation Waves
  - Qualitative analysis of feedback from participants in first 3 waves of program
  - Added content to program on medications, hydration, fatigue management
  - Previously reported (Wildes et al, SIOG Annual Meeting Abstracts 2017)
- Pilot waves
  - Feasibility aim
    - Recruitment rate
    - Percent of sessions attended
  - Preliminary efficacy testing
    - Change in falls-behaviors and self-efficacy
| Session 1 | Introduction, Overview, and Choosing What to Cover  
Guest expert introduces the balance and strength exercises. |
|-----------|---------------------------------------------------|
| Session 2 | The Exercises and Moving about Safely  
Review and practice exercises with guest expert, explore the barriers and benefits of exercise, moving about safely — chairs and steps, learning not to panic after a fall. **Discuss signs of nerve damage from chemotherapy** that may increase the risk of falls. |
| Session 3 | Advancing Exercises and Home Hazards: **less emphasis on advancement**  
Review and practice exercises, discuss when and how to upgrade your exercises, identify hazards in and about the home, and problem-solving solutions. |
| Session 4 | Vision and Falls, Community Safety, and Footwear  
Review and practice exercises. Guest experts discuss the influence of vision on risk of falling and talk about strategies to get around the local community and reduce the risk of falling. Learn about the features of a safe shoe and identify clothing hazards. |
| Session 5 | Medication Management, Bone Health, and Sleeping Better  
Identify the importance of **Vitamin D and calcium** to protect from fall injury. Guest expert talks about medications that increase falls risk. Strategies to sleep better are discussed. **Premedications, dehydration.** |
| Session 6 | Getting Out and About  
Discuss and give participants the opportunity to see and try hip protectors. Explore different weather conditions that could lead to a fall. Review exercises. With guest expert, practice safe mobility techniques learned during the program in a nearby outdoor location. |
| Session 7 | Review and Plan Ahead  
Review and practice exercises, review personal accomplishments from the past 7 weeks. Reflect on the scope of things learned. Review anything requested. Finish any segment not adequately completed. Time for farewells and closure. |

**Follow-up home visit**  
Support follow-through of preventive strategies and assist with modifications.

**3-Month Booster Session:** Review achievements and how to keep them going.
Exercises

Multitasking: Balance exercises while chemotherapy infusing
Feedback & observations

• The participants have loved the program
• Sometimes the caregivers were more frail than the patients.
• The program helped patients meet their goals!
  • “I just want to be able to have 2 beers on my anniversary & not fall” (male, age 74)
  • “I learned ways I COULD fall, so now I’m more careful NOT to” (female, age 79)
  • “The exercise training helped me be able to get up & down my basement steps… to walk out & get the newspaper.” (female, age 76)
  • “Both my wife and I now look at our life with a better outlook on how we can prevent injuries due to falls.” (male, age 70)
  • “Helped me a lot, not only because of my cancer, but also being the old lady that I am. Enjoyed it so much. Awesome.” (female, age 80)
Methods

• Inclusion criteria
  • Age ≥65
  • Receiving systemic cancer therapy or experiencing side effects of cancer/cancer treatment
  • Report a fall or fear-of-falling

• Measures
  • Measured before and after completion of the 7-week program
  • Falls Behavior Scale (FAB)
    • A measure of behaviors that increase fall-risk
  • Falls-Efficacy Scale-International (FES-I)
    • A measure of fear of falling in various situations

• Analysis
  • Change scores were analyzed using a one-sample t-test.
Results

- 26 patients enrolled
- Mean age of 74.2 (range 65-85)
- 57.7% were female
- Cancer types included breast (38.5%), prostate (19.2%), myeloma (11.5%), genitourinary (7.7%), colorectal (7.7%), and other (11.5%)
- Over half (53.8%) had stage IV disease
- Treatments
  - Conventional chemotherapy (42.3%)
  - Targeted agents (26.9%)
  - Endocrine (15.4%)
  - Treatment break (15.4%)
Results: Feasibility Aim

• Feasibility
  • overall session completion rate was 78.6%
  • 143/182 possible program sessions attended for 26 participants

• Satisfaction
  • Participants were highly satisfied with the program
  • 92.3% were satisfied with the program format & weekly session length
  • 11.1% of respondents said the 7-week program was ‘too short’
  • 88.9% said it was ‘just right’
Results: Preliminary Efficacy

Falls Behavior Scale

- Pre: $2.92 \pm 0.56$
- Post: $3.38 \pm 0.46$
- $P < 0.001$

Falls Efficacy Scale

- Pre: $28.9 \pm 10.4$
- Post: $28.5 \pm 10.0$
- $P = 0.70$
Conclusion

• Participation in Stepping On: Cancer Edition was associated with a change in Falls Behavior Scale scores among older adults with cancer.

• Falls Efficacy Scale scores did not change significantly
  • May be related to phrasing of questions
  • “Are you concerned about the possibility of falling...”
    • May have been interpreted as “awareness” rather than lack of self-efficacy

• Future study will be required to determine if the program prevents falls in this population.
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