FALL PREVENTION BEHAVIORS AND MOTIVATION OF HOSPITALIZED OLDER ADULTS

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FALL PREVENTION

- 1/3 of older adults fall every year[1]
- Leading cause of unintentional injury, deaths, and disability in older adults[1]
- 1.3-8.9 falls/1,000 bed days in acute care hospitals[2]
- Occur due to complex interaction of biological, behavioral, environmental, and social economic factors[3]
- >50% of inpatient falls are of cognitively oriented patients[4]

1. Bergen, G. Falls and Fall Injuries Among Adults Aged ≥65 Years — United States, 2014. *MMWR Morb. Mortal. Wkly. Rep.* **65**, (2016).
2. Miake-Lye IM, Hempel S, Ganz DA, Shekelle PG. Inpatient fall prevention programs as a patient safety strategy: a systematic review. *Ann Intern Med*. 2013;158(5 Pt 2):390-396. doi:10.7326/0003-4819-158-5-201303051-00005.
3. World Health Organization.WHO Global Report on Fall Prevention in Older Age. (2007).
4. VA Portland Health Care System internal data (Q1 2013-Q2 2016)

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GAPS IN RESEARCH & PRACTICE

- Lack of patient engagement in fall prevention recommendations[1]
- Preliminary study #1[2]
  - 50%: Remembered receiving fall prevention education
  - 29%: Considered themselves to be at high risk for falling
- Preliminary study #2[3]
  - 13%: Identify as "doing it all," "not going to change," or "I give up"
  - 46%: Identify at least 3 fall prevention activities or fall risks
  - 46%: Identified limitations or need for change *but not changing yet*

1. RAND corporation. Preventing Falls in Hospitals | Agency for Healthcare Research & Quality (AHRQ). http://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/index.html. Accessed June 25, 2015.
2. Kiyoshi-Teo, H., Carter, N. & Rose, A. Fall prevention practice gap analysis: Aiming for targeted improvements. *Medsurg Nurs.* (in press),
3. Unpublished

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STUDY AIM

Examine hospitalized older adults' **fall prevention behaviors** and **levels of motivation**

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SETTING/SAMPLE

- Three medical-surgical floors at a Northwestern hospital
- Inpatients (≥ 24 hrs)
- Age ≥65
- At high risk for falling (Morse Falls Scale≥45)
- Cognitively oriented (≥ AAO *3)

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METHODS

- Descriptive, cross-sectional design
- In-person interviews at bedside
  - Fall prevention behaviors:
    - Modified ***Fall Prevention Behavior (FAB)***[1-4]
  - Measures to examine motivation:
    - ***Importance and Confidence Ruler***[5]
    - ***Short Fall Efficacy Scale-International (FESI)***[6]
    - ***Patient Activation Measure (PAM)***[7]

1. Clemson, L., Cumming, R. G. & Heard, R. The development of an assessment to evaluate behavioral factors associated with falling. *Am. J. Occup. Ther. Off. Publ. Am. Occup. Ther. Assoc.* **57**, 380–388 (2003).
2. Clemson, L., Bundy, A. C., Cumming, R. G., Kay, L. & Luckett, T. Validating the Falls Behavioural (FaB) scale for older people: a Rasch analysis. *Disabil. Rehabil.* **30**, 498–406 (2008).
3. Finlayson, M. L., Peterson, E. W., Fujimoto, K. A. & Plow, M. A. Rasch Validation of the Falls Prevention Strategies Survey. *Arch. Phys. Med. Rehabil.* **90**, 2039–2046 (2009).
4. Filiatrault, J. *et al.* Development and validation of a French Canadian version of the falls Behavioral (FaB) Scale. *Disabil. Rehabil.* **36**, 1798–1803 (2014).
5. VA Portland Health Care System patient teaching resource
6. Kempen GIJM, Yardley L, Haastregt JCMV, et al. The Short FES-I: a shortened version of the falls efficacy scale-international to assess fear of falling. *Age Ageing*. 2008;37(1):45-50.doi:10.1093/ageing/afm157.
7. Hibbard JH, Greene J. What The Evidence Shows About Patient Activation: Better Health Outcomes And Care Experiences; Fewer Data On Costs. *Health Aff (Millwood)*. 2013;32(2):207-214.doi:10.1377/hlthaff.2012.1061.

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RESULTS: DEMOGRAPHICS

	Mean (SD)/ Frequency (%) (#)	Comments
Male	97.0% (65)	
Age (years)	73.13 (6.35)	
Time since admission (days)	4.34 (3.96)	
Number of diagnosis	10.37 (4.83)	
Admission due to a fall	11.9% (8)	
Morse Fall Scale	68.36 (15.41)	≥45 indicate high fall risk
Montreal Cognitive Assessment Basic Score	25.58 (2.89)	<22 indicate mild cognitive impairment
Fell in last 3 months	52.2% (35)	23 people had injury
Fell in last year (excludes recent 3 months)	44.7% (30)	11 people had injury

N=67

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RESULTS: PRIMARY OUTCOMES

	Mean (SD)	Comments
Fall prevention behavior score (FAB)	2.96 (0.42)	1-4 possible scores. 4=always implementing fall prevention behaviors
The level of **importance**	9.12 (1.97)	1-10 possible score. 10=extremely important
The level of **confidence**	7.23 (2.49)	1-10 possible score. 10=extremely confident
Self-efficacy score (FESI)	17.8 (6.69)	1-28 possible score. 28=having the most concerns related to falling
Patient activation score (PAM)	64.3 (13.59)	1-100 possible score. 100=most activated to engage with his/her healthcare

N=67

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RESULTS: COMPARISON

	Fall <3 months Mean (SD)	No fall <3 months Mean (SD)	Significance
Fall prevention behaviors (FAB)	3.08 (0.37)	2.84 (0.46)	p=.036*
Importance	9.71 (0.68)	8.56 (2.75)	p=.034*
Confidence	6.56 (2.60)	7.86 (2.32)	p=.044*
Self-efficacy score (FESI)	19.06 (6.32)	16.76 (6.74)	P=.173
Patient activation score (PAM)	65.51 (13.87)	63.32 (13.67)	P=.531

N=67 *: p<.05

In comparison between those who fell ">3m, < 1 year" to those who did not have a fall during that period, these differences were not statistically significant.

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PATIENT-REPORTED FALL PREVENTION BEHAVIORS

N=67

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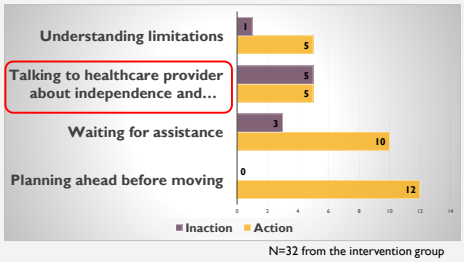
FALL PREVENTION BEHAVIORS: AMBIVALENCE



N=32 from the intervention group

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WHY AMBIVALENCE?

- "I'm not comfortable with the cane"
- "I have a hard time accepting other people's help"
- "There's a lot of things I think aren't anybody else's business but mine"
- "She's a good provider, but there again my vanity is killing me"

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LIMITATIONS

- Sample size
- Limited to high fall-risk patients
- Self-reported data
- Social desirability bias

NOTE: This presentation represents baseline data for a randomized control trial using Motivational Interviewing

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CONCLUSIONS

- Older adults value fall prevention (importance & behaviors)
- Recent fall experience impact:
  - Fall prevention behaviors (↑)
  - Importance (↑) and confidence (↓)
- Ambivalence exists for fall prevention behaviors

Opportunity for behavior change!

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WHAT NURSES CAN DO

- Recent fall episode offers opportunity to intervene
- Affirm what patients already do
- Identify areas of ambivalence for behavior change
- "Coach" based on *stages of change*
- Find and create next steps for what they are NOT doing, or can do MORE of

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"What's important to you?"
Falls are common in hospitals and at home

Fall prevention "Coaching" material

I want to talk about things that matters to me:

• Be independent to take care of myself	• Be able to do more things that I enjoy
• Get better and stronger	• Need less visits to hospitals

I want to talk about my fall risks:

• My knees gives out	• My medications make me fall
• Being dizzy or loosing balance while standing	• Not wanting to ask for help or wait for help
• Moving before thinking	• My surroundings are not safe

I want to talk about practical ways to keep me safe:

• Allow plenty of time to get to the bathroom by planning ahead	• Wear your glasses and hearing aides

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Thank you!

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