



2022 Forum on Aging in Rural Oregon



Engaging Older Adults in Fall Prevention Using Motivational Interviewing: When, What, and How

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1 in 4 older adults reported a fall.

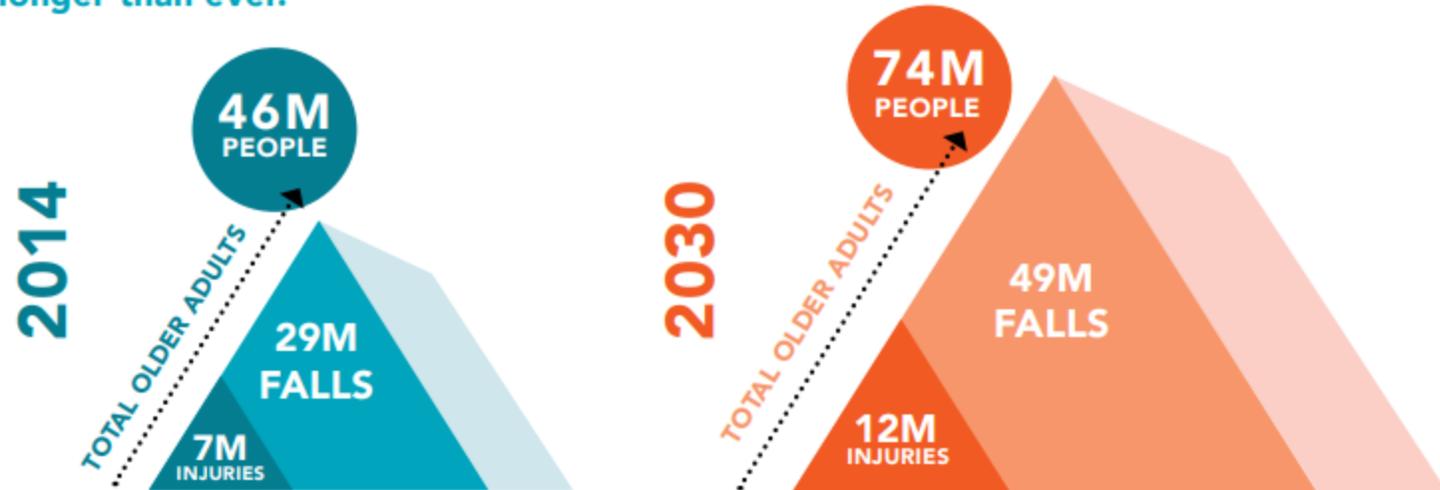
Falls are the number one reason older adults lose their independence.

Less than half of older adults talk to their doctor about their fall.

A Growing Burden:

Over 10,000 people in the U.S. turn 65 every day and Americans are living longer than ever.

Falls and fall injuries are increasing in the U.S. Annual medical expenses for older adult falls cost over **\$31 billion**, these costs will surge unless preventive measures are adopted.

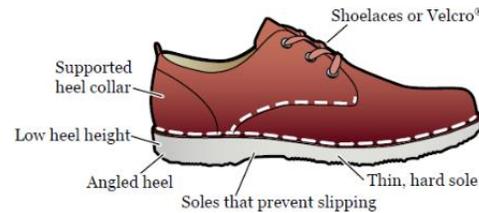


Objectives

By the end of the session today, you will be able to:

- Describe challenges with engaging older adults in fall prevention
- Describe the “when,” “what,” “how” of Motivational Interviewing adapted for fall prevention clinical practice
- Describe 3 strategies to start using Motivational Interviewing in clinical practice

Many falls CAN be prevented by evidence-based fall risk assessment tools & clinical interventions



- Summary of the Updated American Geriatrics Society/British Geriatrics Society Clinical Practice Guideline for Prevention of Falls in Older Persons,” 2011
- Gillespie et al., 2012; “Summary of the Updated American Geriatrics Society/British Geriatrics Society Clinical Practice Guideline for Prevention of Falls in Older Persons,” 2011

Challenges with fall prevention

- **30-52%** of older adults make changes in response to fall prevention advice ¹
- Average of **6** recommendations at a clinic visit to address fall risks ²
 - **8%** full adherence, **16%** partial adherence ²
- For those considering walker use, **40%** were at precontemplation stage to use the walker ³

1. Nyman SR, Victor CR. Older people's participation in and engagement with falls prevention interventions in community settings: an augment to the cochrane systematic review. (2012) *Age Ageing*. 41(1):16-23. doi:10.1093/ageing/afr103.
2. Kiyoshi-Teo H, Miura LN. (May, 2018). Impact of a Fall Prevention Clinic: Veterans' Motivation and Behaviors. American Geriatric Society 2018. Poster presentation.
3. Kiyoshi-Teo H, Northrup-Snyder K, Cohen DJ, Dieckmann N, Stoyles S, Winters-Stone K, Eckstrom E. (2019). The feasibility of Motivational Interviewing to engage older inpatients in fall prevention: Pilot randomized controlled trial. *J Gerontol Nurs*. Journal of Gerontological Nursing, 45, 19–29. <https://doi.org/10.3928/00989134-20190813-03>.

“I had a patient with high fall risk. From the start of the visit, he was very defensive and reluctant to engage.

He refused nearly all interventions.

The few interventions he agreed to were accompanied with vocalized frustrations.

It was as though he viewed the visit as first steps **toward a loss of independence rather than an opportunity to identify and learn about fall risk factors.**

Given the time constraints and the workload for the visit, there was very little time for education / motivational interviewing, which made it difficult to have a true conversation about the reasoning behind the visit.”



<https://www.shutterstock.com/image-photo/close-asian-old-man-face-elder-1150889288>

Older person in your life?

- How is that person engaged in
 - the process of aging?
 - fall prevention?

What are your thoughts about fall prevention?

- Are falls preventable?
- What does fall prevention mean to *you*?
- What are you doing now to be safe and not fall?
 - Or what will you plan to do to be safe and not fall in the future?

Myths about older adults and falls

- Falls happen to other people, not to me.
- Using a walker or cane will make me more dependent.
- Muscle strength and flexibility can't be regained.
- I don't need to talk to family members or my health care provider if I'm concerned about my risk of falling. I don't want to alarm them, and I want to keep my independence.

Myths about older adults and falls

I will manage not to fall because I'm capable and careful. Even if I fall, I'll figure out a way to keep doing what I'm doing until I can't do it anymore.

Fall prevention is a sensitive topic

- 71% of high fall risk older adults do not identify themselves as high fall risk ¹
- Threatening to independence and privacy ²
- “*Older people* fall but *I* don’t fall” ²



1. Kiyoshi-Teo, H., Carter, N., Rose, A. (2017). Fall Prevention Practice Gap Analysis: Aiming for Targeted Improvements. *MEDSURG Nurs.* 26(5):332-335.

2. McMahon S, Talley KM, Wyman JF. Older people’s perspectives on fall risk and fall prevention programs: a literature review. (2011). *Int J Older People Nurs.* 6(4):289-298. doi:10.1111/j.1748-3743.2011.00299.x.3, Hiroko Kiyoshi-Teo & Northrup-Snyder, (2017), *WIN Conference*

3. Haines TP, Day L, Hill KD, Clemson L, Finch C. (2014). “Better for others than for me”: a belief that should shape our efforts to promote participation in falls prevention strategies. *Arch Gerontol Geriatr.*59(1):136-144. doi:10.1016/j.archger.2014.03.003.

Fall prevention requires *multiple* health behavior changes

Fall prevention strategies:

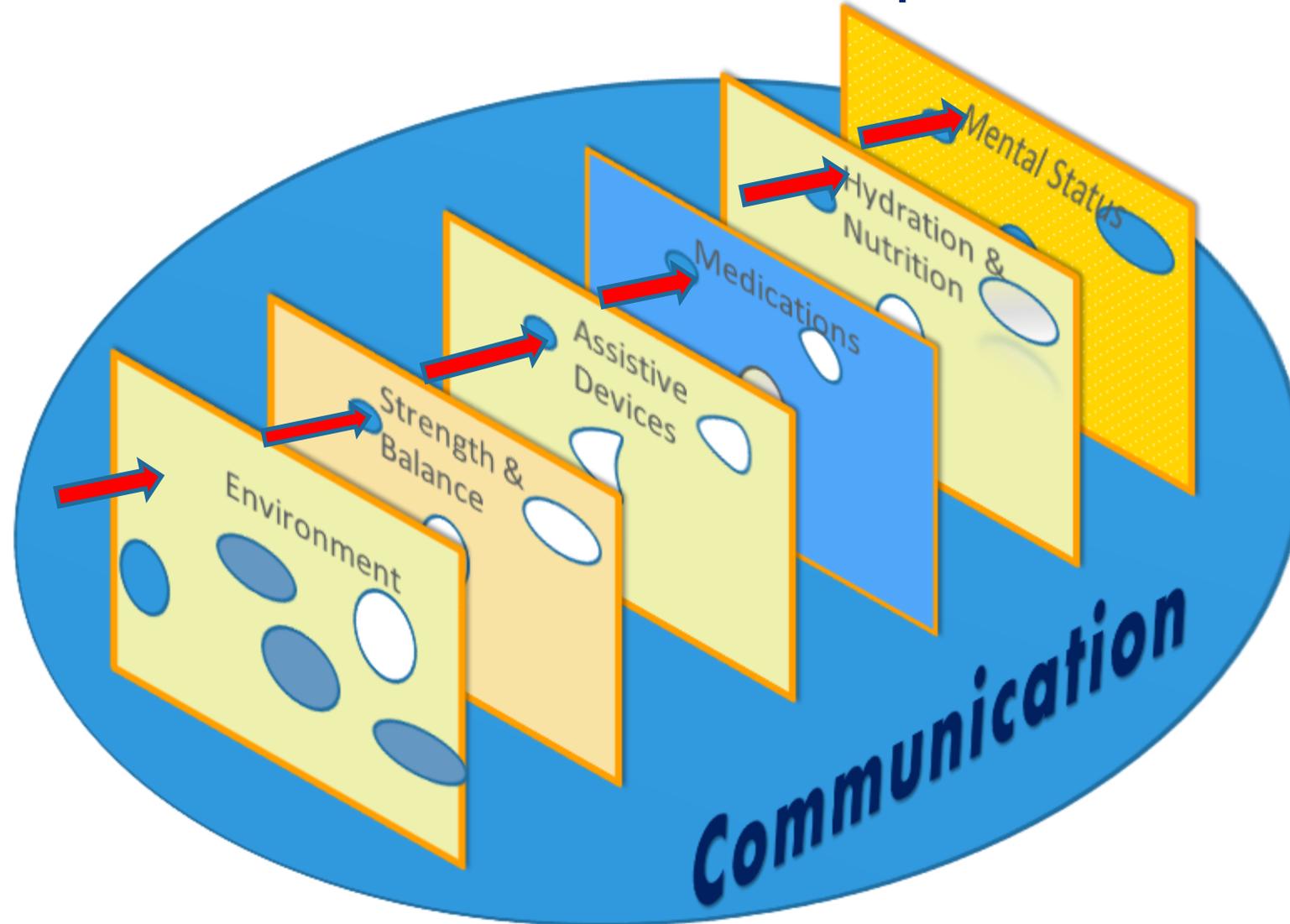
- Assistive device use, exercise, medication, blood pressure management, vision, home-safety
 - Talking to others, asking and waiting for help
-
- Changes in sub-behaviors must align with who they are ¹
 - 46% of high fall risk older adults need additional support to change ²
 - Older adults see fall prevention as *important* but are not as *confident* in preventing falls ³

1. Kiyoshi-Teo, H., Northrup-Snyder, K. Cohen, D., & Izumi, S. (2020). Qualitative descriptions of patient perceptions about fall risks, prevention strategies and self-identity: Analysis of fall prevention Motivational Interviewing conversations. *Clinical Journal of Nursing*. <https://doi.org/10.1111/jocn.15465>.

2. Kiyoshi-Teo, H., Northrup-Snyder, K., Cohen, D., Dieckmann, D., Stoyles, S., Eckstrom, E., & Winters-Stone, K. (2019). Feasibility of Motivational Interviewing to engage older inpatients in fall prevention: A pilot randomized controlled trial." *Journal of Gerontological Nursing*, 45, 19–29. <https://doi.org/10.3928/00989134-20190813-03>.

3. Kiyoshi-Teo, H., Northrup-Snyder, K., Cohen, D.J., Dieckmann, N., Stoyles, S., Winters-Stone, K. & Eckstrom, E. (2019). Older inpatients' fall risk factors, perceptions, and daily activities to prevent falling." *Geriatric Nursing*, 40, no. 3 (May 1, 2019): 290–95. <https://doi.org/10.1016/j.gerinurse.2018.11.005>.

Layers of defense are needed to prevent a fall



SWISS CHEESE MODEL for FALL PREVENTION

Swiss cheese model adapted with permission from: Reason, J. (2000). Human error: models and management. *BMJ*. 2;**320**:768–70. doi: 10.1136/bmj.320.7237.768.

The Transtheoretical Model of Change (Stages of Change) adapted for fall prevention



Adapted from: Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51(3), 390-395. <https://doi.org/10.1037/0022-006X.51.3.390>

Motivational Interviewing (MI)

- Well-established behavior change communication approach
- Communication based on *readiness to change*
- Basic MI skills:
 - **OARS** (Open-ended, affirmations, reflections, summaries)
- 4 processes:
 - Engaging, Focusing, Evoking, and Planning

- Miller, W. & Rollnick, S. (2012). *Motivational Interviewing: Helping People Change, 3rd Edition*.
- Lundahl B, Moleni T, Burke BL, et al. (2013). Motivational interviewing in medical care settings: a systematic review and meta-analysis of randomized controlled trials. *Patient Educ Couns.* 93(2):157-168. doi:10.1016/j.pec.2013.07.012.



Common fall prevention conversations

Have you fallen in the past three months?

Were there any injuries?

I'd like you to start using the walker because X.
Walker will keep you safe and not fall.

Motivational interviewing (MI) for fall prevention

Because....

- Fall prevention involves multiple “layers of defenses”
- Older adults are hesitant to talk about fall prevention
- MI for exercise (for fall prevention) works

MI has potential for

- ✓ Individualized interventions based on *readiness to change*
- ✓ A safe space to talk
- ✓ Cost-effective delivery

What we know



Feasibility of Motivational Interviewing to Engage Older Inpatients in Fall Prevention: A Pilot Randomized Controlled Trial

Hiroko Kiyoshi-Teo, PhD, RN, Kathlynn Northrup-Snyder, PhD, RN, CNS, Deborah J. Cohen, PhD, Nathan Dieckmann, PhD, Sydnee Stoyles, MBST, Elizabeth Eckstrom, MD, MPH, and Kerri Winters-Stone, PhD [SEE FEWER AUTHORS](#) ^



ORIGINAL ARTICLE | [Full Access](#)

Qualitative descriptions of patient perceptions about fall risks, prevention strategies and self-identity: Analysis of fall prevention Motivational Interviewing conversations

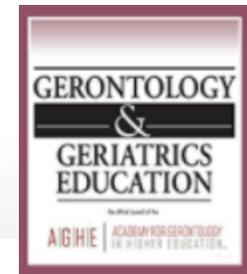
Hiroko Kiyoshi-Teo PhD, RN [✉](#), Kathlynn Northrup-Snyder PhD, RN, Mary Robert Davis BSN, RN, Ellen Garcia MN, RN, CCRN, Amy Leatherwood RN, MSN, FNP-BC, Shigeko (Seiko) Izumi PhD, RN, FPNC ... [See fewer authors](#) ^

Research Article

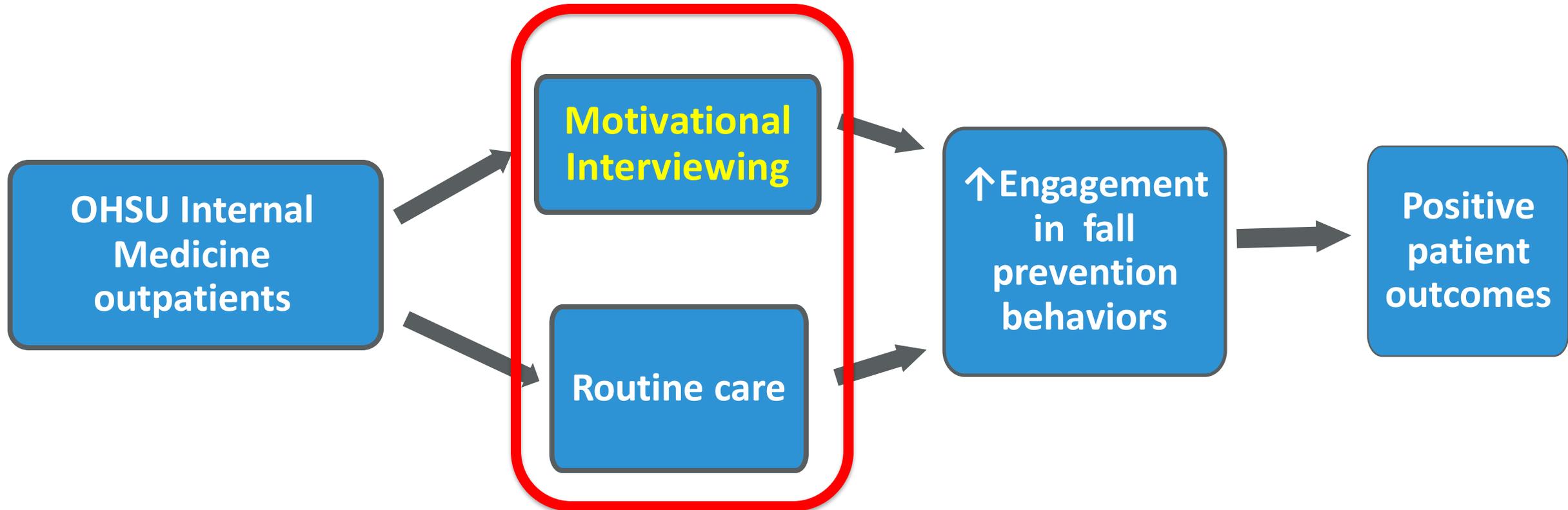
Feasibility study of student-led fall prevention care management: reducing fall risks in assisted living facilities

Hiroko Kiyoshi-Teo [✉](#) [ID](#), Claire McKinley-Yoder, Olivia Ochoa-Cosler, Erin Lemon, Sydnee Stoyles, Ruth Tadesse, ... [show all](#)

Published online: 31 Aug 2021

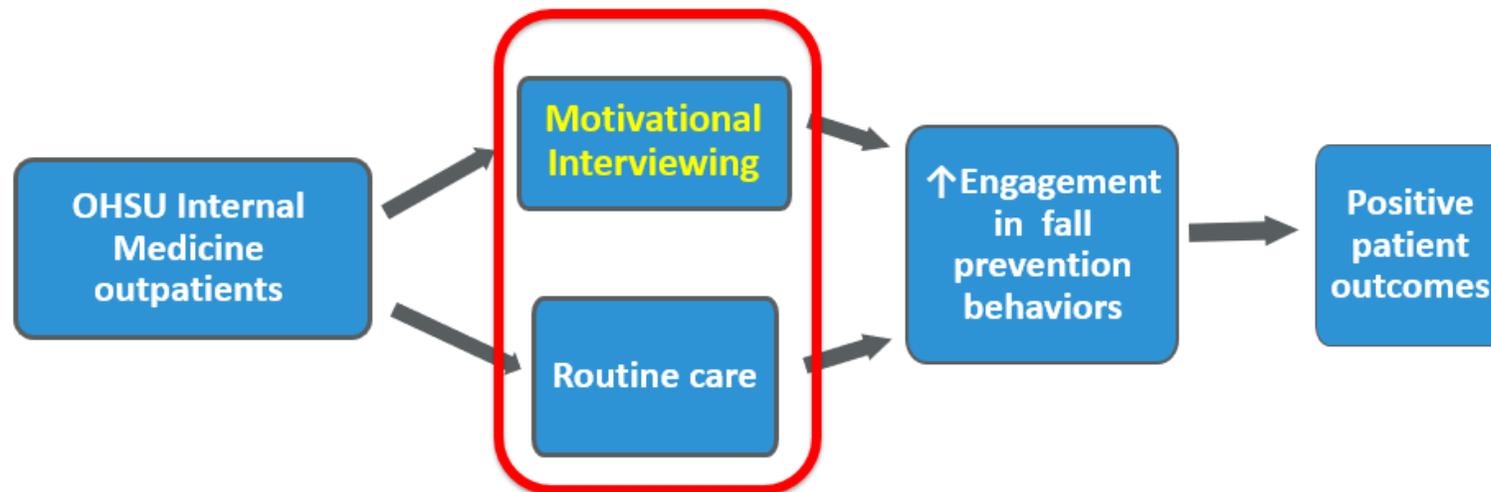


Older adults in the community



MI for fall prevention: older adults in the community

- **Design:** 2-arm, longitudinal, randomized controlled trial
- **Intervention:** Telephone/video MI provided monthly for 6-months
- **Sample:** 151 (as of March 2022)
- **Demographics:**
 - 69% female, 90% white, mean age 80, 1.7 falls/year, STEADI score 6.88



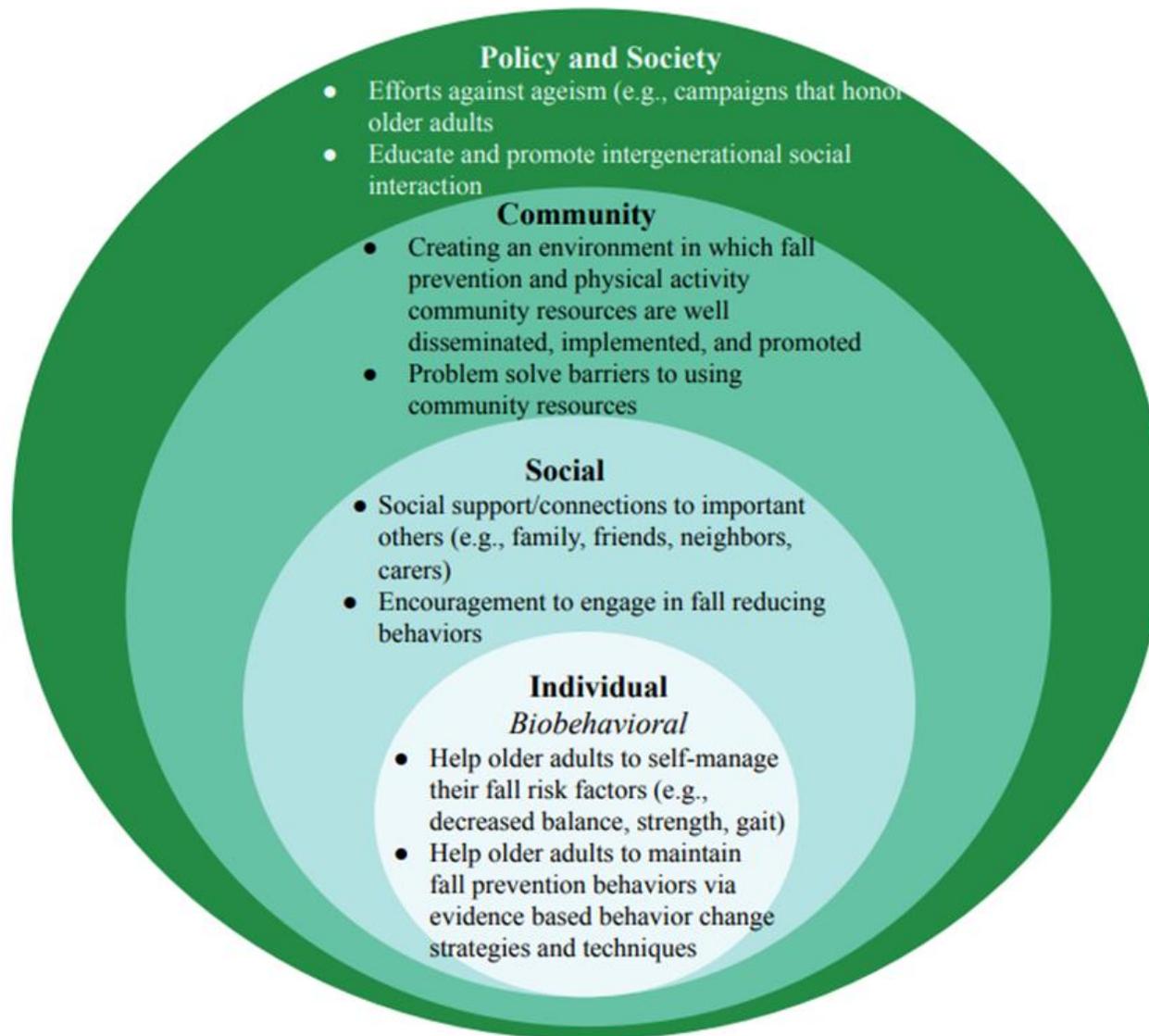
Fall prevention recommendations:

- Physical therapy (n=44), Tai-chi (n=43), other fall prevention exercises (n=38)
- Blood pressure management (n=42)
- Medication changes (n=25)
- Vision related (n=22)
- Others: Footwear (n=20), incontinence issues (n=19), assistive device (n=10), home safety evaluation (n=5)

MI topics

- Coping with age and health related changes
- Incorporating exercise into daily lives
 - At-home balance exercises, tai-chi, PT exercises
- Use of assistive device
- How to be more careful/mindful
 - Avoid getting overly tired, finding alternatives
- Sleep/anxiety/ADHD
- Hydration

Socio-ecological model for fall prevention



Motivational Interviewing: How to use for fall prevention?

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Before you jump into MI, check your assumptions and tendencies

- Assumptions
 - Fall prevention is all common sense and easy!
 - Ask yourself: How long does it take for you to change your habit- eat certain things? Stress management?
 - Ask yourself: How do you feel about talking about your “accidents”?
- Tendencies
 - "Non-compliant" patient: How many do you have in a month?

When/Who?

MI is especially helpful with patients with resistance (precontemplation stage)

- “I fell but I’m doing fine”
- “I’m not going to fall”
- “I’m doing everything I can do be safe”
- “I am very careful not to fall”

Patients with ambivalence (contemplation stage)

- “I know I should use the walker, but I’m not there yet”
- “I have to take care of my spouse, I wish I had more time and energy”

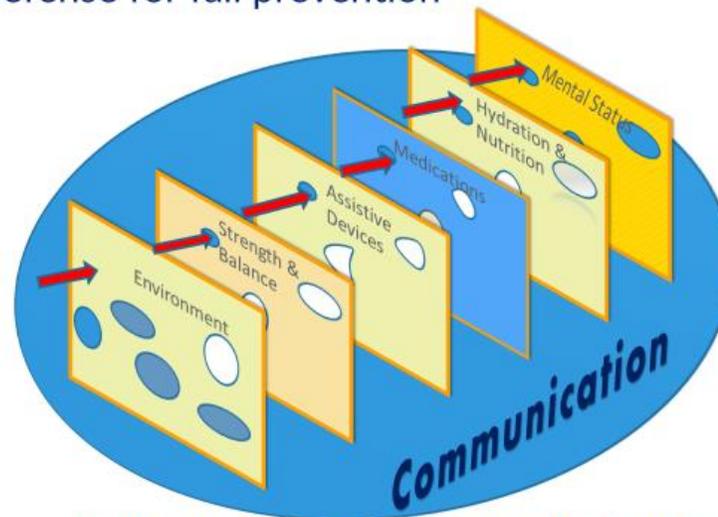
What

- Workshop by Dr. Northrup-Snyder & other MINT trainings
- Therapeutic communication (engaging) **AND focusing/evoking/planning**
 - **Focusing**
 - What topic to start the fall prevention conversation with?
 - **Evoking**
 - “planting the seed” of alternative ideas & hope
 - Identifying the “baby steps”
 - **Planning**
 - What does your next step look like?
 - What are the barriers? Facilitators?

Resistance ≠ Refusal

~~One and done~~

Layers of defense for fall prevention



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Swiss cheese model adapted from Reason Reason J. Human error: models and management. *BMJ*. 2000;**320**:768–70. doi: 10.1136/bmj.320.7237.768.

“What’s important to you?”

Menu of Options for Fall Prevention

My fall prevention goals:

• Be independent to take care of myself as much as possible	• Be able to do more things that I enjoy
• Be less worried about falling	• Need less visits to hospitals

My fall risks:

• Unsteady when walking	• My medications make me fall*
• Worry about falling	• My blood pressure is not good*
• Issues with toileting	• My vision is not good*
• Things related to my feet and what I wear for shoes and clothing*	• Other risks and diseases that may need further evaluations*
• My home is not safe	• My blood sugar is not good
• Lost some feeling in feet	• Often feel sad/depressed

Things I can do to keep me safe:

• Change how I move around	• Get better sleep
• Plan ahead before moving	• Better pain management
• Use cane or walker	• Use glasses and hearing aides
• Exercise and be active (physical therapy, exercise programs, fall prevention)	• Talk and learning about falls and how to prevent them

Kiyoshi-Teo, H., Northup-Snyder, K., Cohen, D., Dieckmann, D., Stoyles, S., Eckstrom, E., & Winters-Stone, K. (2019). Feasibility of Motivational Interviewing to engage older inpatients in fall prevention: A pilot randomized controlled trial. *Journal of Gerontological Nursing*, 45, 19–29. <https://doi.org/10.3928/00989134-20190813-03>.

How

- Workshop by Dr. Northrup-Snyder
- OARS MI skills to start!
- “Menu of Options for Fall Prevention”

Starting a fall prevention MI conversation

- *Would it be ok to talk about fall prevention? (asking for permission)*
- *How do you feel about talking about fall prevention? (O)*
- *What things have you done to keep you safe? (O)*
- *How has this fall impacted you? (O)*

O = Open-ended question

Carrying on the conversation- Identifying strengths & fall prevention focus

- **I'm curious... can you tell me more about X?**
- **I wonder... what went through your mind when you had a fall?**
- **It seems like you are interested in X, could you share what things you have done?**

Focusing, Evoking, Planning...

- **Seems like you have thought a lot about keeping yourself safe, is there anything else that you are interested in?**
- **What does your next step look like to start X?**
- **Why do you think X has been so difficult?**

How to apply MI into your practice?



<https://wordpress.org/openverse/image/7d1bc211-e395-49c8764-99d47d2d5831>

Think ahead...

- Add one more **open-ended question** to a conversation
 - Beginning & end
- Add one more **reflection**
- Think of strengths to **affirm**

And...

- Perhaps, readjust your goal
 - Introduce fall prevention beyond “being careful”
- Listen for & practice basic skills
 - OARS
- 4 processes of MI:
 - Engaging, focusing, evoking, planning

Big picture - Shifting of the mindset

- Goal of the visit for you? Or the *patient/client*?
- It takes time to change
- People are at various Stages of Change
- “Planting the seed” vs. ~~“once and done”~~
 - Changes happen in between the visits!
- Be humble
 - We don’t know what a patient’s life is like every day



“Adapted” Motivational Interviewing to Engage Hospital Nurses in Fall Prevention Education

Hiroko Kiyoshi-Teo, PhD, RN,
Kathlynn Northrup-Snyder, PhD, CNS, RN

Let's practice!

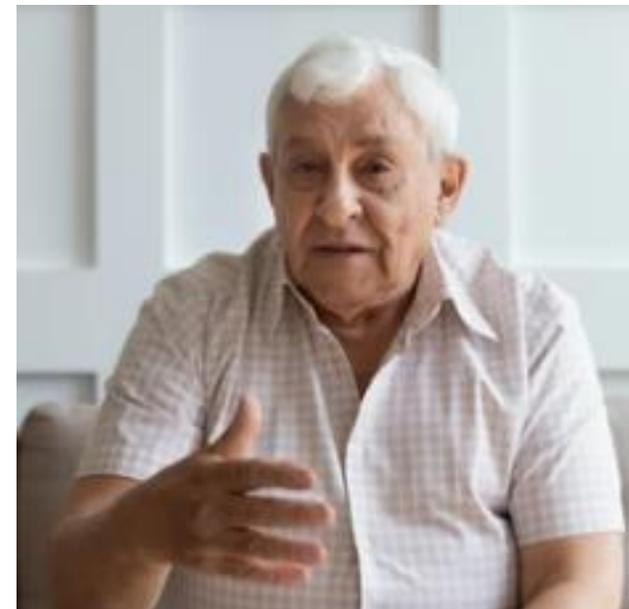
- “I am very very careful not to fall”
- “I know I should use the walker, but I don't think I'm there yet”
- “I walk everyday, so I'm doing well!”

Participants have said...

“... I’m pleased with this because I have somebody to talk about it, and there’s a focus for it... fall is what happens in between when things go wrong, but it isn’t a focus on any one person’s study.... I live a lot there.” (intervention group)

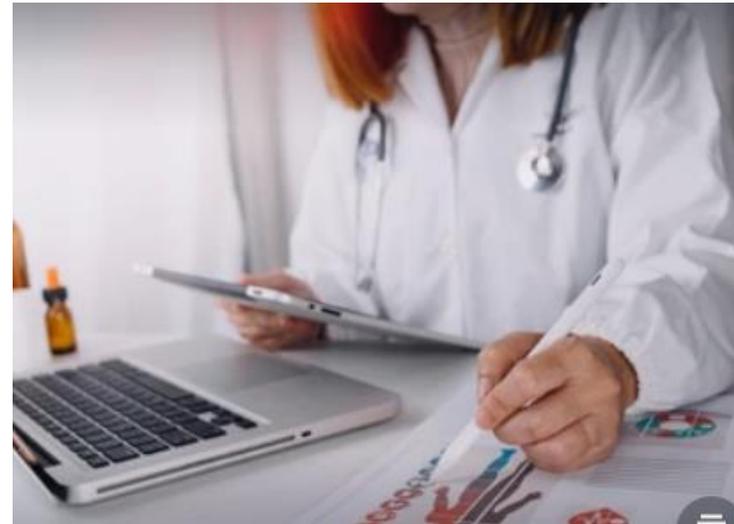
“I appreciated the call... I don’t think I would have ever done anything to prevent me from falling if it weren’t for the study” (intervention group)

*“The calls made me **more aware**... mindful... of what I’m doing, where I’m at” (intervention group)*



A provider have said...

- *“Some of our patients are fearful to tell their providers about falls or near-falls. They are worried they will be told to make lifestyle changes that they are not comfortable with (using assistive walking devices, tidying up their home, stop driving). Having your study where you can delve into these questions in a safe environment may be the key.”*



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Thank You, Partners!



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