Case
In a community-based program for older adults, the OT frequently works with clients at risk for falls. Home visits to identify hazards and unsafe behaviors are one way to contribute to falls prevention. But the OT has other responsibilities within the program and must decide the most effective way to dedicate time. As home assessments are time-expensive, the OT wants to know the extent to which environmental modification make a difference in decreasing accidental falls in older adults.

1. Ask: Research Question
In older adults who are at risk for falling, what is the effect of home-modifications on reducing falls compared with no intervention?

2a. Acquire: Search Terms
Patient/Client group: Older Adults, Adults
Intervention: Home Modifications, Environment Modifications
Comparison: Outcome: Accidental Falls

2b. Acquire: Selected Articles
Cumming et al. (1999): A randomized controlled trial (RCT) that examined OT home visits targeted at environmental hazards and its effect on reducing the risk of falls in older adults.
Pighills et al. (2011): A three-arm RCT that assessed the effectiveness of environmental fall prevention delivered by qualified OTs or unqualified trained assessors on falls and fear of falling in older adults.

3a. Appraise: Study Quality
Cumming et al. (1999):
Suggestive: Large n-size.
Results need careful interpretation because the intervention group had fewer falls at home and away from home. Limitations in observational epidemiological studies.
Pighills et al. (2011): Preponderant: Large n-size. Only applicable to community-dwelling older adults, not generalizable to other settings.

3b. Appraise: Study Results
The findings of these studies suggest that home modifications by occupational therapists can prevent falls among community-dwelling older adults who are at risk of falling. They support that home assessment interventions that are comprehensive, well focused, and incorporate an environmental-fit perspective with adequate follow-up are what do so with significant effects.
Furthermore, they suggest the professional background of occupational therapists to be appropriate to assess home modifications to prevent falls. This preventive effect is not caused by home modifications alone; but home modifications by occupational therapists may also lead to changes in behavior patterns that enable older adults to live more safely in their home and external environments.

4. Apply: Conclusions for Practice
Based on the findings of the effectiveness, the occupational therapist would find it an effective use of time to administer assessments for environmental modifications for older adults at risk of falling. Because resources are best allocated where they make a difference, the time should be used with older adults at higher risk of falling. The results of these studies should also direct current practice as occupational therapists are effective in eliciting changes in behavior patterns that enable older adults to live more safely in their home and external environments, thus reducing falls.

References

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✔ Yes: Environmental modifications are effective for reducing falls in older adults.