

ASSESSING THE SAFETY OF SINGAPORE HOMES WITH RESIDENT ELDERLY



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INTRODUCTION

Falls are the leading cause of injury-related death for individuals 65 and older and the risk of falling increases exponentially with age¹. In Singapore, as many as one in three people above 65 will have a fall each year, with 62% of these requiring hospital admissions². About 10% of elderly patients who have a fall will sustain serious injuries while 1-2% will fracture their hips². Studies have also indicated that approximately 50% of falls occur in and around the fallers' homes³.

OBJECTIVE

•To assess the safety of homes with respect to fall prevention.

METHODOLOGY

- Administration of a Home Safety Checklist comprising 3 sections: Demographic Profile, General Attitudes, Behaviour and Perceptions of a Safe Home and Fall Hazards in General Areas, Bathrooms/Toilets and Bedrooms to students from a Junior College in the east of Singapore (Checklist developed with expert input from SGH Dept of Occupational Therapy)
- Students acted as proxies to describe the home setting as well as the status of the eldest resident in the home
- Homes were categorized into low, moderate and high risk using a specially designed scoring system.
- Chi-square test was used to compare the scores between those who had falls in the past 12 months and those who did not.

RESULTS

•There were 526 respondents (Response rate of 63.8%).

Demographics of Eldest Person Resident (EPR)

- Average age was 76.8 years, 41.5% males.
- There were 85.0% Chinese, 8.9% Malay, 3.0% Indian and 3.1% Others
- 64.5% did not have any fall history.

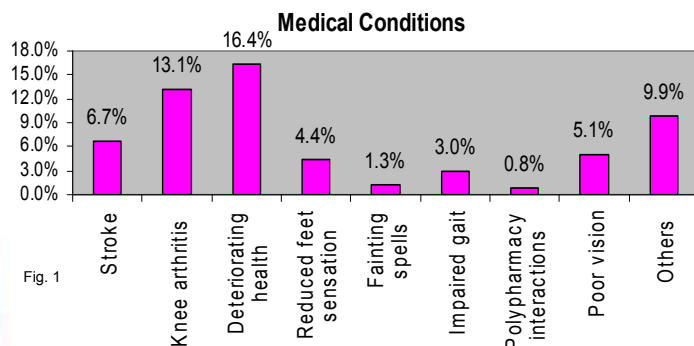


Fig. 1

CONCLUSION

- The majority of Singapore homes are low risk for falls by elderly persons.
 - ~ Much attention has focused on adequate lighting although other aspects of safety could have been neglected.
- There is a discordance between the perception of falls risk by the young and the reality of the risk posed to the elderly. This discordance could hamper efforts to improve the safety of the home.
- History of prior falls by the resident elderly sensitizes the young to the risk of falls but this does not appear to translate into specific behaviour aimed at reducing risk.

REFERENCES

1. Stacie Salisbury Lyons. *Evidence-Based Protocol, Fall Prevention for Older Adults*. Journal of Gerontological Nursing.
2. Eveline Gan. For the elderly, falls are a big deal. TODAY 15 July 2008.
3. Margaret Stevens, C. D' Arcyl J. Holman, Nicole Bennett. *Preventing Falls in Older People: Impact of an Intervention to Reduce Environmental Hazards in the Home*. American Geriatrics Society 49:1442-1447,2001.

Questions on General Attitudes, Behaviour and Perceptions of Safe Homes

General Attitudes, Behaviours and Perceptions of Safe Home

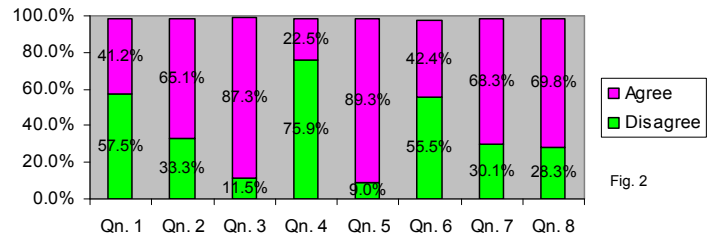


Fig. 2

1. My grandparent is at a risk of falling and suffering serious injury.
2. My grandparent knows what to do to prevent falls.
3. My family and I are concerned about the possibility of my grandparent falling and suffering a serious injury.
4. I often see my grandparent do something that puts him/her at a risk of falling.
5. The home is a safe environment for my grandparent.
6. My family has discussed interventions for fall prevention.
7. My family is prepared for emergencies such as injuries that arose from falls.
8. My family is prepared to safe-proof the home if necessary.

There was a significant difference in attitudes and perceptions between respondents whose EPR had a fall and those who did not.

General Areas

- 89.7% of respondents felt that areas in their homes were well-lit enough for walking.
- 19.4% of homes had objects on the floor that could cause falls.
- 55.9% of homes had cords/wires taped down.
- 90.1% of homes do not have furniture obstructing the walkways.
- 50.7% of kitchens were not equipped with non-slip floorings.

Bathrooms/Toilets

- 59.7% of the toilets were also not equipped with handrails.
- 55.3% of the toilets were equipped with non-slip mats floorings.

Bedrooms

- 67.3% of respondents indicated that there were night-lights in the bedrooms.
- 90.5% of respondents felt that the beds were at an appropriate height such that their grandparents' feet are able to touch the ground firmly while sitting on the bed.
- No significant differences in behaviour between respondents whose grandparents had a fall and those who did not.

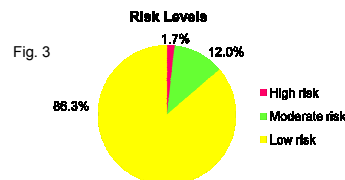


Fig. 3

The majority of homes were assessed to be low risk based on the Home Safety Checklist