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POSTER ABSTRACT

Falls among older adults living in age-friendly environment in Singapore

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Introduction: There is an increasing awareness of the importance of the home in the health and social ecosystem. To encourage independent living, an enabling and healthy environment is needed. One of the major public health problems among older adults is falls, which may result in a range of consequences, from fractures and soft tissue injuries to severe disabilities and death. To examine prevention efforts of falling in later life, this study aims to examine factors associated with falls in older adults residing in apartments designed with age-friendly features and service provision, in a developed Asian country, Singapore.

Methods: A cross-sectional study was conducted in 2012 with 925 older adults aged ≥55 years, residing in age-friendly apartments in Singapore. Information on fall history, demographics, medical conditions, functional difficulties, participation in activities, and behavioural and environmental details were measured.

Results: We found that 198 (21.4%) residents were reported to have fallen before. Factors associated with falls include older age (aOR: 1.71, 95% CI: 1.20 – 2.45), cataracts (aOR: 1.66 95% CI: 1.14 – 2.43), urinary tract disorders (aOR: 2.96, 95% CI: 1.23 – 7.12), general weakness (aOR: 2.10, 95% CI: 1.28 – 3.47), participation in family gatherings (aOR: 0.52, 95% CI: 0.35 – 0.78), and functional difficulty in dressing (aOR: 2.05, 95% CI: 1.04 – 4.03). Falls were more likely to occur among those experiencing difficulties walking long distances, with a significantly higher difference in males (aOR: 4.76, 95% CI: 2.46 – 9.03) compared to females (aOR: 2.15, 95% CI: 1.39 – 3.32). Environmental factors were not independent factors for falls, although they were associated in bivariate analysis.

Discussion and conclusions: This study highlights the importance of the age-friendly design environment on fall prevention. Knowledge of sociodemographic, medical, social and functional difficulties factors is of interest in the development of environmental interventions for fall prevention, in optimizing functional ability and enabling healthy ageing among this population. Multifactorial interventions on falls are needed, such as multimodal exercise and screening for cataract and urinary tract disorders. This can be complemented by the design of the apartments and its surroundings and its existing service provisions, in the delivery of integrated health and social care. Identification of these factors may help inform policymakers, as well as service and care providers in the planning of future integrated care programmes.

Limitations and suggestions for future research: This is a cross-sectional study conducted with participants who reported on falls retrospectively, which may not allow for causation to be established. Longitudinal studies with objective measures of falls may be useful in providing insights and community trials involving service providers may be conducted to facilitate fall-prevention initiatives.

Keywords: falls; age-friendly environment; older adults; integrated health and social care