Investigate the Relationships between Facilities Management and Risk of Elderly in Care and Attention Homes

Jingyu YU¹ and Mei-yung Leung²
¹ Postdoctoral fellow, Department of Civil and Architectural Engineering, City University of Hong Kong; Email address: jingyuu-c@my.cityu.edu.hk
² Assistant professor, Department of Civil and Architectural Engineering, City University of Hong Kong; Email address: bcmei@cityu.edu.hk

Abstract

Purpose – The aging population is expected to reach 26.5% in Hong Kong (Census and Statistics Department 2012) and 22.8% in Canada in 2031 (Statistics Canada 2011). To tackle the rapidly aging problem, the government encourages the development of care and attention (C&A) homes to achieve active aging. Most of elderly depend on facilities in the C&A homes to compensate their physical and psychological problems and reduce the risks and accidents (Leung et al. 2012, 2013). However, fewer studies have been conducted to investigate FM in the C&A homes from the elderly perspective. This paper thus aims to investigate critical FM components influencing elderly risks in the C&A homes.

Method – In this study, a questionnaire survey was conducted with elderly residents in C&A homes to investigate the relationships between critical FM components and elderly risks. Post-occupancy evaluation method was used to evaluate the satisfaction level for the FM components in C&A homes. The data collected from questionnaire survey were analyzed using reliability analysis and Pearson correlation.

Results – Based on extensive literature, 16 FM components have been identified including space planning, privacy, decoration, furniture, signage, finishes, lighting, temperature, ventilation, noise, safety, security, staff, hygiene, recreational facilities and catering. Four common elderly risks are also identified in terms of physical injury (e.g., falling, collision, twisted) scalding, behavior disorder and fire risk. The results of correlation analysis and comparison show that (1) physical injury is negatively related to space planning and noise; (2) behavior disorder was negatively associated with space planning, privacy, and catering; and (3) different types of elderly risks were inter-related.

Originality / Value – Based on detailed investigation for the impact of FM components on elderly risks, a number of recommendations are made for designing and managing C&A homes. Too long distance between the living and activity areas should be avoid for reducing falling and collision risk. Perhaps, chairs and flexible bench can be placed or fixed in the middle of a long corridor for elderly. Easily-accessed bathrooms without curbs are suggested to be located close to living/dining rooms and bedrooms for elderly residents. It is necessary to add protection to any shape angles to furniture, fixtures and walls in the C&A homes.

Keywords: Care and Attention Homes, Elderly, Facility Management, Post Occupation Evaluation

Acknowledgement: The work was fully supported by a grant from the Hong Kong government (Project No. 9041566).

References