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Socio-demographics could predispose an increase in falling risk

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Background: Falls in the elderly occurred frequently and may lead to a significant rise in morbidity and mortality. Annually, one-third of individuals over the age of 65 have experienced some fall events, and fifty percent for those over 80. Therefore, this study was to investigate the related factors of falling in the elderly in Taiwan beyond the commonly reported correlations to cardiac arrhythmia, dementia, Parkinson's disease, and knee osteoarthritis.
Methods: This was a retrospective cohort study. We excluded people who have known increasing risks of falling, such as heart or cerebrovascular disease, back pain or arthritis, cancer, balance disturbance, sedative agents usage, and past fall histories. A total of 13489 elderly were finally included from March 2009 to July 2010 in Taipei. The subjects had finished two repeated self-administered questionnaires recording the falling frequency, age, sex, educational and income status and BSRS-5 scores. We used logistic regression and controlled known confounding factors to evaluate the related factors of falling in our study population.
Results: The ultimate sample consisted of 13489 participants. The average age was 74.75 (SD 6.37). The prevalence of falls was 3.6%. According to multivariate analysis results, the factors and their relative impact on a predisposition to falling were as follows: female gender (OR 1.392; 95% CI 1.132-1.711), lower educational status (OR 1.754; 95% CI 1.345-2.287), low-income families (OR 1.672; 95% CI 1.155-2.419), and higher score in BSRS-5 (OR 1.677; 95% CI 1.225-2.294).
Conclusions: Falls in older adults can be a result of multiple factors. Social demographics play an integral role in determining a predisposition to falling. Thus, the mere examinations of a patient's chronic diseases to assess the risk of falling are not sufficient. Social demographics and psychological attributes are at least equally important in measuring such likelihood to falling.