

# Hip protectors: a pilot study of older people in Taiwan

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摘要

## Abstract

**Aims and objectives.** This research explores the compliance by older people in Taiwan with wearing hip protectors and whether protectors can prevent fractures or decrease injuries after falls. **Background.** The ageing process causes degeneration of nerves, joints, muscles and then the incidence of falls in the older people is higher than in the young. Therefore, fractures caused by falls, particularly hip fractures of older people, need to be studied. Hip protectors are designed to reduce hip fractures and hip injuries when falls occur, by distributing the impact load and absorbing the impact force generated during a fall. **Design.** This research was designed as a longitudinal study using purposive sampling and intervention for six months. **Methods.** The target population were older people at high risk for falls and the study was carried out during a six-month period. Self-reported data were collected by interview and questionnaires. The expert validity of the questionnaires, including demographics, high-risk group, compliance and correct wearing of hip protectors and fall injuries, as assessed by three experts, was 0.94 and the test-retest correlation coefficient was 0.95. Individuals were excluded from the research sample if they were 24-hour bedridden, non-mobile or had an existing hip injury. **Results.** Ten female subjects participated in this study. Their mean age was 76.1 years. During a six-month follow-up, there were 12 falls while wearing hip protectors, however, no fractures occurred because of the falls. **Conclusions.** This is the first research into hip protectors in Taiwan. The reasons for low compliance by older people were (1) unaccustomed to use, (2) discomfort, (3) wearing only during the daytime, (4) lack of assistance from family caregivers. **Relevance to clinical practice.** Fall prevention, exercise and the use of hip protectors can significantly decrease the incidence of hip fractures. Although hip protectors are effective in reducing fall fracture risk, the compliance rate remains low. In the future, the researchers will develop a hip protector program related to teaching the correct method for wearing protectors. Helping older people learn how to overcome the discomfort of wearing hip protectors and encouraging a willingness to wear them is imperative.