# LETTER Home Environmental Factors Associated with Falls Among Elderly in Ubon Ratchathani, Thailand [Letter]

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# **Dear editor**

Newly, we have perused the original article entitled "Home Environmental Factors Associated with Falls Among Elderly in Ubon Ratchathani, Thailand" by Boonkhao et al.<sup>1</sup> This is a valuable, practical, and interesting study. The advantages of this study are as follows: (1) This is the first study to investigate the environmental factors inside and outside of residential homes associated with falls among rural elderly people living in That Subdistrict, Warin Chamrap District, Ubon Ratchathani, Thailand. Paying attention to the factors related to falls among rural elderly people and providing targeted recommendations and tailored intervention activities are the missions of community health workers. This study provides an empirical evidence for improving the housing conditions of elderly people living in rural areas of Thailand and mitigating the risk of falls. (2) The study employed a formula to calculate the sample size, which was scientific and reliable. The research tool Thai-Home Fall Hazard Assessment Tool (Thai-HFHAT)<sup>2,3</sup> used in this study not only reported reliability but also validity, with good quality. (3) The authors conducted in-depth discussion around the research results, compared them thoroughly with previous studies, and carefully analyzed the reasons for these findings.

Nevertheless, there are also some limitations and areas for improvement in this study: (1) The researchers employed incidental sampling to gather data; To ensure the representativeness of the sample and reduce the sampling errors, we suggest that the authors use methods such as random sampling, random cluster sampling, etc. (2) Data collection only took place from August to October 2023; We suggest that the authors consider the seasons of data collection in future research, as the incidence of falls among elderly people and home environmental factors may differ between the rainy and dry seasons. (3) There is one area in the text that need to be corrected: Page 1369, the "25. Insecurely attached carpet to the floor" in Table 2 has incorrect values for "Without Falls". These values need to be checked by the authors. (4) The authors only conducted univariate analysis regarding the relationship between falls and environmental factors among rural elderly people. We kindly suggest that the authors perform multivariate logistic regression analysis in the future, calculate OR values, and assess the risk of falls under different home environmental factors.

Further research directions for this study: (1) A multicenter study included more rural areas in Thailand is needed to draw more convincing conclusions. (2) We suggest that the authors consider more individual factors related to falls in the elderly when conducting research in the future. For example, fear of falling (FOF) was identified as an independent risk factor contributing to falls among older people.<sup>4</sup> The authors can explore the subjective experiences of rural elderly people regarding FOF through qualitative research. (3) Setting elderly people living in other rural areas or urban communities as a control group to compare the differences in occurrence of falls and related home environmental factors. (4) Developing appropriate prevention and intervention measures focused on education, problem-solving, and training to improve housing conditions for rural elderly people in Thailand, reduce the risk of falls, and promote public health.

## Disclosure

The authors report no conflicts of interest in this communication.

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