

**【Original Article】**

## Association between the Perception of Hilly Environment and Active Transportation among Older Adults Living in Sloping Land

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### Abstract

**Objective:** This study examined the association between the perception of hilly environment and active transportation among older adults living in sloping land.

**Methods:** This study was cross-sectional. A questionnaire survey was conducted with older adults (n = 1021) residing in Tsurukabuto area in Nada-ward, Kobe-city. Among the respondents, 693 individuals (67.9%) answered the survey. In this study, data from 337 individuals aged 65 or more without serious mobility limitations and missing data were analyzed. Active transportation was measured as “transportation outside Tsurukabuto area by walking or cycling at least once a week.” To evaluate participants’ perception of the hilly environment, they were asked whether transportation was difficult due to the hilly neighborhood. Gender, age group, living arrangement, perceived economic status, driving status, exercise activity at least twice a week, being overweight, knee pain, and psychological distress were also examined in the questionnaire. A poisson regression analysis was performed, with active transportation as the dependent variable, and the perception of the hilly environment and other factors as the independent variables.

**Results:** Among the respondents, 21.2% engaged in active transportation. The poisson regression analysis revealed that those who negatively perceived the hilly environment (adjusted prevalence ratio = 0.64, 95% confidence interval = 0.42-0.96) were less likely to engage in active transportation than those who did not negatively perceived it.

**Conclusion:** The present study found that the those without negative perception of the hilly environment tended to engage in active transportation among the respondents. This finding indicates that reducing negative perception of the hilly environment might influence active transportation among older adults living in sloping land.

**Key words:** environment, walking, physical activity, cyclings

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