

Cognitive disorders: A risk factor for underutilizing home renovation services covered by long-term care insurance

Tomoko Kamimura, Shiho Nakano
Shinshu University, Matsumoto, Nagano Pref., Japan

Introduction: Small-scale home renovations are included as a service provided under long-term care insurance (LTCI) in Japan. An expert to assess the functioning of frail elderly does not always become involved in planning for them. Populations at risk of underutilizing such services were identified to find a target of professional support. The objective of this study was to examine risk factors for cessation of the use of installed equipment within six months after the renovations.

Methods: Two follow-up studies were combined to identify risk factors for cessation. One was conducted in Mihara city in 2002 and the other in Nagano city in 2006. Occupational therapists visited participants' homes to evaluate the status of their using or not using the equipment over six months. A multiple logistic regression analysis was done to identify the risk factors. **Results:** One hundred and seventy-seven residents (77.7 ± 9.0 years; male 78/female 99) participated in this study. One hundred and twenty-six people belonged to Care Levels 1 and 2, and the others belonged to Care Levels 3, 4, and 5 at the time of renovation. Fifty-four people had cognitive disorders. One hundred and twenty-one people walked independently indoors. Ninety-five people belonged to elderly households. Fifty-five renovations commenced within one month after being discharge from hospitals. Thirty people stopped using the equipment after six months. Only cognitive disorders were significantly associated with a higher risk of the cessations (odds ratio 4.63; 95% CI 2.03-10.52; $p = .000$). Other variables, such as investigative year, age, care levels, locomotion, household, were not significantly associated with risk. Eighteen people with cognitive disorders ceased using the equipment. Seven people did not use the equipment immediately after the renovation, while the remaining used it for a certain time, but injuries due to falls, onset of diseases, or progression of dementia led to cessation. **Conclusion:** These results suggest that people with cognitive disorders are prone to underutilizing home renovation services covered by LTCI. Occupational therapists might prevent this through assessments of their functioning during planning for the use of the equipment; however, such evidence needs to be established.