

Difficult Task During Activity of Daily Living in the Frail Elderly

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Introduction

The aim of this study was to investigate the level of difficulty in performing activity of daily living (ADL) in elderly, and compared it between the non-frail and frail elderly groups.

Method

The questionnaire was obtained from 104 elderly people aged over 65 years old from local community from July to August, 2017. It composed of basic information (sex, birth, height, weight, Body Mass Index and past medical history), Korean version of FRAIL scale (K-FRAIL scale) and checklist of the difficulty of 29 items related to ADL. 29 ADL items were developed based on Frenchay Activities Index, Katz index and Lawton-Brody instrumental ADL scale. The level of difficulty is measured on a Likert scale rating from 1, 5 (1 - most difficult, 5 - the easiest). Participants were categorized into 2 groups of frail elderly (K-FRAIL score ≥ 3) and non-frail elderly (K-FRAIL score ≤ 2). The difficulty level of ADL in all participants was analyzed by independent t-test.

Result

The mean age of the 104 participants (90 women and 14 men) were 78.3 ± 5.1 . The mean score of K-FRAIL scale for all participants is 2.4 ± 1.3 . Among the 104 participants, 56 (53.9%) of frail elderly group was founded. The top five most difficult items in all participants were in order: riding bicycle (1.5 ± 1.5), moving heavy Objects (1.8 ± 0.9), lifting heavy Objects over 5kg (1.9 ± 1.0), cleaning floors (2.4 ± 1.1) and cleaning windows (2.5 ± 1.3). The top five most difficult activities in the frail elderly groups riding bicycle (1.7 ± 1.7), moving heavy Objects (2.0 ± 1.0), lifting heavy Objects over 5kg (2.1 ± 0.9), cleaning floors (2.7 ± 1.2) and cleaning Windows (2.9 ± 1.4), and those in the non-frail elderly groups were in order: riding bicycle (1.4 ± 1.2), moving heavy Objects (1.5 ± 0.9), lifting heavy Objects over 5kg (1.8 ± 1.0), down the stairs (2.1 ± 0.9) and climbing stairs (2.1 ± 0.7). 27 items were significantly more difficult ($p < 0.05$) in frail elderly group compare to non-frail elderly group, except riding bicycle ($p = 0.296$) and lifting heavy Objects over 5kg ($p = 0.168$).

Conclusion

This study suggests that elderly people felt more difficult in the activities that require the loading and overcoming the gravity, and compared to the non-frail elderly, frail elderly felt most activities more difficult. The Results of this study may be helpful to develop the proper exercise and assistive device to improve the daily activity in the frail elderly.

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