Determining the status of activity of daily living (ADL) and instrumental activity of daily living (IADL) in healthy and cognitive impaired elderly

Seyed Farid Nourbakhsh¹, Reza Fadayevatan², Mahtab Alizadeh-Khoei³*, Farshad Sharifi⁴

¹. MD, M.P.H student of Gerontology, Gerontology department, University of Social Welfare and Rehabilitation Sciences (USWR), Tehran, Iran
². Associate Professor, Elderly Health Research Center, Tehran University of Medical sciences, Tehran, Iran.
³. Assistant Professor, Iranian Research Center of Aging, Gerontology department, University of Social Welfare and Rehabilitation Sciences (USWR), Tehran, Iran
⁴. Assistant Professor, Elderly health research center, Tehran University of Medical sciences, Tehran, Iran.

Abstract

Background & Objective: Dementia is associated with serious effects on memory, cognition and ability to carry out daily activities. There is evidence that impairment in activity of daily living (ADL) is even reported among elder patients who suffer from mild cognitive disorders. Therefore, we aimed to determine the status of ADL and instrumental activity of daily living (IADL) in healthy and cognitive impaired elderlies (MCI, Mild, and Moderate dementia).

Methods: In this cross-sectional study which was conducted in 2016, 300 elderlies (60 years and above) were selected using a classified cluster sampling in four groups (each group of 75 individuals). These groups comprised of healthy old people and elderlies with mild cognitive impairment (MCI) and mild to moderate dementia that were residing in rural areas of Isfahan and Tehran and were classified between stages of 1 to 5 according to the Global Deterioration Scale (GDS). All individuals in four groups were assessed by ADL and IADL evaluation tools. The geriatric depression scale (GDS-15) and DSM-IV scale were performed on healthy elderlies by a physician to confirm the lack of mild dementia or depression. Data were analyzed by SPSS 20 software and using descriptive statistics, analysis of variance and independent samples T-test.

Results: According to the cognitive impairment screening results by GDS, 76 elderlies were healthy, 75 were in MCI group, 72 individuals were diagnosed with mild dementia and 77 were suffering from moderate dementia. The mean scores of ADL tool on the basis of different cognitive stages of elderlies were statistically significant (p<0.001). The ADL scores among elderlies were lowered by increasing the severity of cognitive impairment. Moreover, the average scores of IADL among elderlies with different cognitive status were significantly different (p<0.001). The IADL scores in cases with moderate dementia were markedly declined in comparison to healthy subjects and elderlies with MCI and mild dementia.

Conclusion: Although applying the ADL and IADL tools are not considered as gold standards in rapid assessment of cognitive impairments among elderlies, they could be considered as useful and user friendly tools to detect performance alterations in elderlies with dementia to provide healthcare by geriatric teams.

Key words: Mild cognitive impairment (MCI), Activity of daily living (ADL), Instrumental activity of daily living (IADL), Dementia, Elderly

Corresponding Author: Mahtab Alizadeh-Khoei
Address: Iranian Research Center of Aging, Gerontology department, University of Social Welfare and Rehabilitation Sciences (USWR), Tehran, Iran.
E-mail: mahtabalizadeh@yahoo.com