

# CHANGES IN PHYSICAL FUNCTION, MENTAL STATUS, AND INDEPENDENCE IN DAILY ACTIVITIES OF OLDER PEOPLE IN WIROBRAJAN, YOGYAKARTA

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## ABSTRACT

**BACKGROUND:** The increasing population of older people in Indonesia induces research to understand their characteristics and changes over time. These data are needed to develop appropriate health programs for older people. This study aimed to assess changes in the physical function, mental status, and independence in daily activities of older people within six months.

**SUBJECTS AND METHODS:** This was a cohort study conducted in Yogyakarta, Indonesia, from August 2015 to February 2016. Study subjects were 30 older people aged 60-81 years in Wirobrajan, Yogyakarta. This study used Get Up and Go Test (GUG), Borg Scale and Berg Balance Scale to assess physical function, Mini Mental State Examination (MMSE) and Hopkins Verbal Learning Test (HVLN) to assess mental status, and Activities of Daily Living (ADL) as well as Instrumental Activities of Daily Living (IADL) to assess independence in daily activities. The data were measured twice with six month interval. The data were analyzed using paired t-test, Wilcoxon test and cluster analysis.

**RESULTS:** Statistical analysis showed: 1) A statistically significant decline in physical function as assessed in the GUG ( $p = 0.001$ ) and BERG Balance Scale ( $p < 0.001$ ); 2) No statistically significant changes in MMSE and HVLN; 3) A significant decline in IADL ( $p = 0.002$ ) compared to the data of the previous six months. Cluster analysis did not show a clear pattern of individual changes. The changes on individual level were more varied, with most subjects showed decline, but some demonstrated improvement in physical function, mental status or independence in daily activities.

**CONCLUSION:** There was a significant decline in physical function and independence in daily activities in older people compared to the previous six months. Varied individual changes showed that older people did not change in a uniform way and similar rate. Further study to assess changes over longer time is needed for development of appropriate health programs for older people in Indonesia.

**Keywords:** older people, physical function, mental status, activities of daily living, Indonesia