LEVEL OF PHYSICAL ACTIVITY AS PREDICTOR OF HEALTH, PHYSICAL STATUS AND MILD COGNITIVE IMPAIRMENT IN OLDER ADULTS

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Introduction: Physical inactivity is related to increased morbidity and mortality in older adults. However, there is limited information about this matter among Malaysian older adults. The aim of this study was to examine if level of physical activity level predicted health, physical status and mild cognitive impairment(MCI) in older adults following 18months.

Methods: Data of 900 community dwelling older adults (455 women and 445 men), age 60 years and above from wave 3 (March2016 to Sept2016 longitudinal study on neuroprotective model for healthy longevity among older adults (LRGS TUA) was analysed. Level of physical activity was measured using Physical Activity Scale for the Elderly (PASE) which was taken from wave 2 LRGS TUA data (November 2014 to August 2015). Handgrip strength, 2-minute step, 30-seconds chair stand, TUG and gait speed tests were performed using standard protocols. MCI was identified using Peterson's criteria. Linear logistic regression and simple linear regression analysis were carried out to examine if level of physical activity level predicted health, physical status and MCI.

Results: Among the medical conditions, higher level of physical activity predicted lower incidence of joint pain (OR 0.997, 95%CI 0.995 -1.000) and diabetes (OR 0.997, 95%CI 0.995 -1.000). Level of physical activity also significantly predicted physical performance namely hand grip strength $F(898,1)=15.928$, $p<0.001$, gait speed $F(898,1)=24.511$, $p<0.001$, timed up and go $F(898,1)=30.563$, $p<0.001$, chair stand $F(898,1)=33.746$, $p<0.001$, 2-minutes step $F(898,1)=15.408$, $p<0.001$ tests. However, level of physical activity did not appear as a predictor for MCI.

Discussion: Higher levels of physical activity was related to better physical performance and health status among older adults. Both physical performance and health status may have accounted for MCI in the regression analysis.

Conclusions and clinical implications: Level of physical activity predicted physical performance and health status but not MCI among Malaysian older adults. It is important to promote higher levels of physical activity among older adults to improve health, physical and cognitive status among older adults.