Prevalence of sarcopenia and factors related to components of sarcopenia in older adults with type-2 diabetes mellitus

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This correlational research aimed to describe prevalence of sarcopenia and investigate relationship of personal factors and health and behavioral factors with components of sarcopenia in older adults with type-2 diabetes mellitus. Sample included 396 older adults from Bangkok and surrounding areas. Data were collected using structured interview, nutritional assessment, body composition analyzer, handgrip strength test and 6-meter walk test. Data were analyzed using descriptive statistics, Spearman Rank Order Correlation, Point Biserial Correlation and Biserial Correlation. The results revealed that the majority of the sample were female with mean age of 68.6±6.8 years and the prevalence of sarcopenia was 1.3 %. Also, the findings found that the components of sarcopenia comprising of low muscle mass, low handgrip strength and low gait speed were significantly correlated with personal factors of age (rs=0.307, p<.001), gender (rpb=-0.204, p<0.001) and co-morbidity (rs=0.124, p=0.013); moreover, they were significantly correlated with health and behavioral factors of depression (rs=0.237, p<0.001), level of physical activity (rs=-0.178, p<0.001), waist circumference (rs=-0.145, p=0.004), alcohol consumption (rb=-0.204, p<0.001) and cigarette smoking (rb=-0.147, p=0.003). However, two personal factors, diabetes duration and hemoglobin A1c and one of health and behavioral factors, body mass index, were not significantly correlated with the components of sarcopenia. The results suggest that nurses promote physical activity and adequate protein consumption, monitor depression and advise for reduction of alcohol consumption and cigarette smoking, particularly in female older adults with co-morbidity.

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