Body mass index (BMI) and cognitive functions in later life

ABSTRACT

Background: The findings from previous studies exploring the association between BMI and cognitive function in the elderly are conflicting. The purpose of the present study is twofold; to verify the association between BMI and cognitive functions and examine whether this association is impacted by height, when adjusted for possible covariates.

Methods: The data for this study, consisted of 2287 older adults aged 60 years and above, drawn from a nationally representative population-based survey entitled "Determinants of Wellness among Older Malaysians: A Health Promotion Perspective" conducted in 2009.

Results: The mean age of the respondents was 68.7 (SD=6.6) years. The average score of cognitive function, measured by MMSE was 24.5 (SD=5.6). About 40% of the respondents were classified as overweight. Results of the multiple linear regression analysis revealed a significant association between BMI and cognitive function (Beta=.10, $p<.001$). The Factorial ANCOVA revealed significant interaction effect between BMI and height on cognitive function ($F= 10.8$, $p<.001$), after adjusting for possible covariates.

Conclusion: The findings from the current study indicating the positive association between BMI and cognitive function depends on height, therefore it is suggested that short people might be targeted for dementia prevention.

Keyword: Aged; BMI; Cognitive function; Epidemiology; Mental health; Older adults