

The association between diabetes and cognitive function in later life

ABSTRACT

Introduction: Although diabetes through several possible mechanisms such as increased microvascular pathology and inefficiency of glucose utilization during cognitive tasks can be associated with cognitive impairment, there is inconclusive evidence that shows elderly diabetic patients under therapy have higher cognitive function compared to their non-diabetic counterparts. The present study was conducted to elucidate the association between diabetes and cognitive function in later life. **Methods:** Data for this study, consisting 2202 older adults aged 60 years and above, were taken from a population-based survey entitled “Identifying Psychosocial and Identifying Economic Risk Factor of Cognitive Impairment among Elderly. Data analysis was conducted using the IBM SPSS Version 23.0. **Results** The mean of MMSE was found to be 22.67 (SD=4.93). The overall prevalence of self-reported diabetes was found to be 23.6% (CI95%: 21.8% - 25.4%). The result of independent t-test showed diabetic subjects had a higher mean score of MMSE (M=23.05, SD=4.55) than their counterparts without diabetes (M=22.55, SD=5.04) ($t=-2.13$ $p<.05$). The results of multiple linear regression analysis showed diabetes was not significantly associated with cognitive function, after controlling for possible confounding factors **Conclusions:** The findings from the current study revealed that diabetes is not associated with cognitive decline. This study supports the findings that long-term treatment of diabetes may reduce the risk of cognitive decline. This finding may provide new opportunities for prevention and management of cognitive decline.

Keyword: Aged; Diabetes; Cognitive function; Microvascular pathology; Cognitive impairment; MMSE