

The Effect of Financial Difficulties on Cognitive Function in a Japanese Elderly Population Sample

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Background

Impairments of cognitive function are one of the leading causes of disability among older people worldwide. The burden of impairment in cognitive function affects patients, their families and society. To understand the role of financial difficulties in impairments of cognitive function seems to be important because financial difficulties affect many risk factors for dementia. This study aims to estimate the impact of financial difficulties on cognitive function

Methods

A longitudinal dataset which include randomly selected Japanese elderly citizens aged 60 and above were collected by the National Survey of the Japanese Elderly. It consists of six waves of surveys, conducted in 1987, 1990, 1993, 1996, 1999, and 2002. Cognitive function was measured by a memory-related questionnaire. Equivalent income, which divided household income by the square root of family size, was used as financial situation. Random-effect probit regression analyses estimated the effect of financial difficulties on cognitive function. Socio-demographic and socio-economic indicators were included to the analyses as confounders.

Results

There were significant effects of financial difficulties on cognitive function. The results indicate that when their equivalent income dropped by 1%, participants were 2.2% more likely to develop cognitive impairment. The results also indicate that the bottom 20%, 40%, and 60% income cut-off points were significantly associated with onset of cognitive impairment, whereas there was no significant effect of the bottom 80% income cut-off point.

Conclusions

Interventions for financially deprived groups play an important role not only in improving their financial situations but also in generating positive effects for their cognitive function.