The Association between Participation in Cognitive Activities and Incident Functional Disability in Elderly Japanese: the Ohsaki Cohort 2006 Study.

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INTRODUCTION: Previous reports have indicated that participation in cognitively stimulating activities is related to lower risk of cognitive impairment among older persons. However, it has never been investigated whether participation in cognitive activities is associated with incident risk of functional disability. This study examined the association between participation in cognitive activities and incident functional disability in a Japanese population.

METHODS: We conducted a questionnaire survey of 31,694 subjects aged ≥65 living in Ohsaki City, northeastern Japan, in December 2006, and 23,091 of the subjects responded. After excluding those who were either disabled at the time of the survey or for whom data were missing, 14,204 formed the study cohort. For the survey, we inquired about the frequency of participation in cognitive activities (watching television, listening to the radio, reading newspapers, reading magazines, reading books, playing games, or going to museums), adopted by Wilson et al (JAMA 2002). We then calculated the cognitive activity scores (CAS), higher scores indicating more frequent cognitive activity. Records of functional disability were extracted from the Long-term Care Insurance database of Ohsaki City. We used the Cox proportional hazard regression model for analysis, after classifying the subjects into four groups according to CAS.

RESULTS: Baseline CAS ranged from 0.14 to 5.00 (mean: 2.68, SD: 0.80). During the 5.7-year follow-up, we identified 2,822 individuals who were newly certified as functionally disabled. There was an inverse association between CAS and the risk of disability. The multiple-adjusted hazard ratios (95% confidence interval) of incident functional disability were 0.87 (0.79–0.96), 0.75 (0.67–0.83), and 0.63 (0.55–0.71) among subjects with CASs of 2.28–2.84, 2.85–3.41, and ≥3.42, respectively, as compared with those whose CASs were < 2.28 (P for trend < .0001).

CONCLUSIONS: Participation in cognitive activities is significantly associated with a lower risk of incident functional disability.