Abstract:

BACKGROUND: Data regarding the relationship between physical activity and cognitive impairment are limited and controversial. We examined whether physical activity is associated with incident cognitive impairment during follow-up. METHODS: As part of a community-based prospective cohort study in southern Bavaria, Germany, 3903 participants older than 55 years were enrolled between 2001 and 2003 and followed up for 2 years. Physical activity (classified as no activity, moderate activity [ or =3 times/wk]), cognitive function (assessed by the 6-Item Cognitive Impairment Test), and potential confounders were evaluated. The main outcome measure was incident cognitive impairment after 2 years of follow-up. RESULTS: At baseline, 418 participants (10.7%) had cognitive impairment. After a 2-year follow-up, 207 of 3485 initially unimpaired subjects (5.9%) developed incident cognitive impairment. Compared with participants without physical activity, fully adjusted multiple logistic regression analysis showed a significantly reduced risk of incident cognitive impairment after 2 years for participants with moderate or high physical activity at baseline (odds ratio [OR], 0.57; 95% confidence interval [CI], 0.37-0.87 [P = .01]; and OR, 0.54; 95% CI, 0.35-0.83 [P = .005]; respectively). Further subanalysis including participants (n = 2029) without functional impairment and without prodromal phase of dementia resulted in an even higher reduction of
risk of incident cognitive impairment for participants with moderate or high physical activity (OR, 0.44; 95% CI, 0.24-0.83 [P = .01]; and OR, 0.46; 95% CI, 0.25-0.85 [P = .01]; respectively) compared with no activity. CONCLUSION: Moderate or high physical activity is associated with a reduced incidence of cognitive impairment after 2 years in a large population-based cohort of elderly subjects.