

Review of: "Association of sleep duration in middle and old age with incidence of dementia"

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The current paper examines the association between sleep duration and incident dementia, in a large longitudinal study of middle and old age adults. The cohort was the Whitehall II study, with 7959 participants included. Results indicate that short sleep duration (<6h) is a risk factor for incident dementia. Persistent short sleep duration at age 50, 60, and 70 compared to persistent normal sleep duration was also associated with a 30% increased dementia risk independently of sociodemographic, behavioral, cardiometabolic, and mental health factors.

Significant strength of the study is the fact that they included middle-aged participants, and not an older group only. Further, the design of the study includes a really long follow-up of 25 years. I would also add on the strengths of the study the inclusion of different covariates in the analyses, which have been associated with both sleep and cognition/dementia i.e., BMI, clinical conditions, mental factors. Interesting addition also, the examination of sleep duration trajectories, in order to reflect changes between the ages of 50 and 70, with incident dementia. The main limitation is that the main sleep duration measure was sleep questionnaire, while a -more objective- accelerometer was available only for a subgroup of participants. Although there are other existing studies examining the association between sleep duration and incident dementia, the current one provides us with a kind of validation of the self-reported measure with accelerometer. Further, it adds on the importance of sleep habits early in life, even at the age of 50, for probably a prevention of an upcoming neurodegeneration. Although usually we see a U-shaped association between sleep duration and incident dementia -or longer duration only-, the current large longitudinal investigation sounds the alarm for the shorter sleep duration. Sleep hygiene must be promoted from early life.