

Posters

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49 LONGITUDINAL CHANGE OF SLEEP IN THE ELDERLY AND ITS ASSOCIATIONS WITH HEALTH

A. Didikoglu, A. Maharani, A. Payton, M. M. Canal, N. Pendleton
Division of Neuroscience & Experimental Psychology, School of Biological Sciences, The University of Manchester, UK Division of Nursing, Midwifery & Social Work, School of Health Sciences, Faculty of Biology, Medicine and Health, The University of Manchester, UK Division of Informatics, Imaging & Data Sciences, School of Health Sciences, Faculty of Biology, Medicine and Health, The University of Manchester, Manchester, UK

Introduction: In elderly populations, sleep quality deteriorates and sleep time shifts towards earlier times. These sleep characteristics have been associated with cardiovascular, metabolic and psychiatric disorders, cognitive decline and mortality. Our aims are to examine longitudinal changes of sleep in older adults and to investigate the relationship between sleep variations, general health and mortality.

Methods: The University of Manchester Longitudinal Study of Cognition in Normal Healthy Old Age cohort (6,375 participants, recruited in the North of England, between 1983 and 1993) was used. Mixed models were used to investigate individual sleep trajectories (5 waves in 30-year period). Sleep timing and efficiency trajectories were clustered using latent class analysis and analysed against daily habits, health and mortality.

Results: Older adults have decreased sleep efficiency (~20%) and early sleep time (~30 min) between 40 and 100 years of age. Those in the high sleep efficiency latent class had minimal decrease in their sleep efficiency as they aged. Belonging to the high sleep efficiency latent class was associated with having lower prevalence of hypertension, circulatory problems, arthritis, breathing problems and recurrent depression compared to the low efficiency latent class. Results showed a higher risk of hypertension and metabolic syndrome in the evening-type latent class compared to morning-type individuals. Evening class was associated with traits related to lower health such as reduced sport participation, increased risk of depression and psychoticism personality, late eating, increased smoking and alcohol usage. Survival analysis revealed that individuals in the evening class had 1.15-fold increased risk of all-cause mortality compared to those with morning preferences.

Conclusion: Ageing is associated with decreased sleep efficiency and early sleep timing. However, there are detectable subgroups of sleep traits that are related to prevalence of different diseases and longevity. Understating these subgroups may pave the way for new treatments for healthy sleeping habits in older population.