
INSOMNIA PREDICTS MORTALITY IN A MIDDLE-AGE POPULATION

B. Sivertsen¹, S. Pallesen², N. Glozier³, B. Bjorvatn⁴, P. Salo⁵, G. Tell⁴, R. Ursin⁶, S. Overland¹

¹Department of Public Mental Health, Norwegian Institute of Public Health, Bergen, Norway ; ²Department of Psychosocial Science, University of Bergen, Bergen, Norway ; ³Brain and Mind Research Institute Sydney Medical School, The University of Sydney, Sydney, Australia ; ⁴Department of Global Public Health and Primary Care, University of Bergen, Bergen, Norway ; ⁵Department of Psychology, University of Turku, Turku, Finland ; ⁶Department of Biomedicine, University of Bergen, Bergen, Norway

Objective: Previous research suggests a possible link between insomnia and mortality, but findings are mixed and well-controlled studies are lacking. The aim of the current study was to examine the effect of insomnia on all-cause mortality.

Methods: Using a cohort design with 14 years follow-up, official registry data on mortality were linked to health information obtained during 1997-99, as part of the community-based Hordaland Health Study (HUSK), in Western Norway. 6,236 participants aged 40–45 completed baseline information included self-reported information on insomnia (defined according to the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), sociodemographic factors, health behaviors, obstructive sleep apnea symptoms, sleep duration, sleep medication use, anxiety, depression, as well as a range of somatic diagnoses and symptoms. Height, weight and blood pressure were measured. Information on mortality was obtained from the Norwegian Cause of Death Registry.

Results: Insomnia was found to be a significant predictor of all-cause-mortality (hazard ratio [HR] = 2.86 [95% CI: 1.62-5.03]). Adjusting for several possible confounders did not attenuate the effect (HR=3.07 [95% CI: 1.53-6.15]). Stratifying on sex, the effect was significant in men (adjusted HR=3.93 [95 % CI: 1.26-12.19]); but not in women (adjusted HR=2.11 [95 % CI: 0.83-5.36]). The mortality risk among participants with both insomnia and short sleep duration (<6.5hours) was particularly high (adjusted HR=4.58 [95 % CI: 1.22-17.19]).

Conclusion: Insomnia was associated with a four-fold risk of mortality in men during 14 years follow-up. The risk was especially high in combination with short sleep duration. Establishing prevention strategies and low-threshold interventions should consequently be a prioritized task for public health policy.