FACTORS IMPACTING SLEEP AND AGING

ACTIGRAPHIC MEASURES OF SLEEP AND METABOLIC SYNDROME AMONG OLDER ADULTS
Dietei Chen1, Yiwei Yue1, Sharmin Hosain1, Jill Rabinowitz1, Amal Wanigatunga1, Luigi Ferrucci1, Eleanor Simonsick1, and Adam Spira1, 1. Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States, 2. Maryland Department of Health, Linthicum Heights, Maryland, United States, 3. National Institute on Aging, National Institutes of Health, Baltimore

Self-reported sleep disturbances are associated with obesity and diabetes, but little is known about links between objectively measured sleep and metabolic syndrome (MetS) in later life. We investigated associations between actigraphic sleep parameters and MetS in 406 participants (53.5% women, 20.9% Black) aged 72.8±10.1 years at baseline (range: 50-96) in the Baltimore Longitudinal Study of Aging. Participants completed wrist actigraphy (6.6±1.0 nights) and were classified as having MetS if they had ≥3 of the following: waist circumference ≥102 cm for men, ≥89 cm for women; high-density lipoproteins < 40 mg/dL in men, < 50 mg/dL in women; triglycerides >150 mg/dL; high blood pressure ≥130/85 mmHg; fasting blood glucose ≥100 mg/dL. Overall, 37 participants had MetS at baseline and 27 participants developed MetS over 2.3±2.2 years of follow-up. Cross-sectionally, compared to participants with total sleep time (TST) < 6 hours, those with 6-8 hours TST had lower odds of MetS (OR=0.28, 95%CI 0.13,0.61); higher sleep efficiency (SE) was associated with lower odds of MetS (OR=0.65, 95%CI 0.48,0.89) and longer wake bout length (WBL) was associated with higher odds of MetS (OR=1.47, 95%CI 1.07,2.01). Excluding 37 participants with MetS at baseline, TST >8 hours was associated with faster increases in the likelihood of developing MetS (OR=1.62, 95% CI 1.03, 2.55). Findings link intermediate TST and higher SE to lower odds of MetS, and longer WBL to higher odds of MetS in older adults cross-sectionally; TST >8 hours was associated with higher odds of incident MetS. Further studies are needed to understand mediators of sleep-MetS associations.