

ASSOCIATION BETWEEN CHRONIC DISEASE AND SLEEP QUALITY AND DURATION AMONG 18-59-YEAR-OLD ADULTS IN SOUTHERN CHINA

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Abstract. Disordered sleep can have deleterious effects, both physical and mental. In this study we aimed to determine the prevalence of disordered sleep and the association between the quality and length of sleep and the presence of chronic disease among 18-59-year-old adults in southern China. This cross-sectional study was conducted during 2017. Study subjects were selected from 4,536 individuals aged 18-59 years. After applying inclusion and exclusion criteria, 4,257 subjects were included in the final analysis; 50.2% were male. Each subject was asked to complete a Chinese language version of the Pittsburgh Sleep Quality Index (PSQI). A PSQI score ≥ 7 was defined as poor sleep quality and sleep duration < 7 hours was defined as inadequate sleep duration. Study subjects were also asked about chronic disease by the question "Has a doctor ever diagnosed you with a chronic disease?" We used univariate logistic regression analysis and clustered logistic regression analysis to assess responses to determine an association between disordered sleep and chronic disease. The mean [\pm standard deviations (SD)] age of study subjects was 42.62 (± 8.24) years. The prevalences of poor sleep quality and inadequate sleep duration among study subjects were 15.6% and 23.1%, respectively. The prevalence of subjects with chronic disease was 16.7%. The most common chronic diseases reported were hypertension (12.6%), diabetes (3.6%), chronic pain (1.8%) and heart disease (1.5%). Among study subjects, chronic disease was significantly associated with poor sleep quality [crude odds ratio (cOR)=1.50; 95% confidence interval (CI): 1.23-1.84; $p < 0.001$] and inadequate sleep duration (cOR=1.30; 95%CI: 1.09-1.56; $p = 0.004$) compared to those without chronic disease. In our study, the prevalences of poor sleep quality and inadequate sleep duration were high and were significantly associated with chronic disease. Further studies are needed to determine the relationship of this association, if it is etiological or associated with some other factors, in order to inform plans to reduce the prevalences of these chronic disease.

Keywords: sleep duration, sleep quality, chronic disease, young and middle-aged adults

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