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Investigation of sleep quality and health status for high-tech workers in TaiwanYu-Kai Lin¹, Yu-Chun Wang² and Ming-Kuan Sun²¹University of Taipei, Taiwan²Chung Yuan Christian University, Taiwan

The working style and frequency of shifts in high-tech industries may have a potential impact on sleep quality. This study, based on literature review, explores the relationships among demographics, sleep quality and health status for high-tech workers, moreover, estimates the possibilities of sleep quality and health in shift. This study recruited 200 workers aged from 25 to 60 years old (100 cases for administrative workers and 100 cases for shift workers) from a high-tech factory in Northern Taiwan. Questionnaires, including Checklist Individual Strength, Pittsburgh Sleep Quality Index (PSQI) and 36-Item Short Form Survey (SF-36) were conducted to 200 cases. Two scales were used to differentiate health status and sleep quality. Statistical analyses were analyzed matching cases' sex and age, including descriptive statistics, generalized linear models, Pearson correlation analysis, paired T-test and decision tree analysis. The results show that the general health (57.8 points), vitality (53.8 points), mental health (61 points) and sleep quality (PSQI=7.2) scored poorly among the participants. Sleep quality and health status were mostly affected by flexible working hours. In addition, paired T-tests report health status with body ache (68% vs. 56%, $p=0.0212$) and sleep quality (67% vs. 65%, $p=0.4880$) among shift workers were worsen than those non-shift workers. Generalized linear models show the sleep quality ($p=0.00529$) is a significant factor in association with flexible working hours. The study suggests that improvement of occupational health services are recommended for shift workers, moreover, the questionnaire can be simplified to improve its accuracy. Increased the study case numbers to improve the accuracy of questionnaire for health surveys are also recommended.

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