

THE ASSOCIATION BETWEEN SHIFT WORK SCHEDULE AND SLEEP QUALITY AND MENTAL HEALTH IN SOUTH OF TAIWAN FEMALE NURSES

Pei-Chen Lin, *Graduate Institute of Occupational Safety and Health, Kaohsiung Medical University, Kaohsiung, Taiwan*
Research & Training, Kaohsiung Municipal Hsiao-Kang Hospital, Kaohsiung, Taiwan

Hsin-Chia Hung, *Department of Nursing, Meiho University, Pingguang, Taiwan*

Chih-Hong Pan, *Institute of Occupational Safety and Health, Council of Labor Affairs, Executive Yuan, Taipei, Taiwan*

Yao-Mei Chen, *Department of Nursing, Kaohsiung Municipal Hsiao-Kang Hospital, Kaohsiung, Taiwan*

Ming-Tsang Wu, *Graduate Institute of Occupational Safety and Health, Kaohsiung Medical University, Kaohsiung, Taiwan*
Center of Environmental and occupational Medicine, Kaohsiung Municipal Hsiao-Kang Hospital, Kaohsiung, Taiwan

Background and Aims: To investigate the relation between shift work, and sleep quality and mental health in female nurses in south Taiwan. Meanwhile, the nurses with rotation shift were further explored the association between types of shift work schedule and sleep quality and mental health and one year to understand the association between the variances of sleep quality and mental health and change of nightshift days

Methods: This study recruited 1360 female nurses registered in Kaohsiung area and 407 with rotation shift working schedule were followed and responded the second questionnaires. Data was measured by a self-administered questionnaire including demographic variables, shift type, sleep quality and mental health. The sleep quality was measured by Pittsburgh Sleep Quality Index (PSQI) and mental health measured by Chinese Health Questionnaire-12 (CHQ-12).

Results: The nurses with rotation shift appeared to have the worst sleep quality and mental health than nurse with day work. Compared to nurses with day work, nurses of nightshift were associated with increased odds ratio of reporting poor sleep quality and mental health (OR: 2.26, 95%CI: 1.57~3.28; OR: 1.91, 95%CI: 1.39~2.63 respectively). Among rotation shift nurses, we found that 2 days off after the last night shift, the sleep quality and mental health were significantly improved, with decreased of 1.23 on PSQI and 0.86 on CHQ-12 score, respectively, after adjustment of other factors. Compared with the first and second survey of sleep quality, the sleep quality was aggravated among nurses with increased nightshift days only.

Conclusions: Female nurses of rotation shift are experiencing poor sleep quality and mental health and 2 or more days off after the last nightshift might improve their sleep quality and mental health. The 2 days off after the last nightshift need application to the manger of nursing department of the hospital and a suitable load of cumulative nightshift days was also considered.