

The relationship between noise with stress and sleep disturbances among manufacturing workers

ABSTRACT

Objective:

Noise can pose various detrimental effects that may put workers at high risk for occupational injuries and detrimental organisational consequences. This study aims to determine the effects of occupational noise exposure levels to psychological stress and sleep disturbance among manufacturing workers in Selangor.

Method:

A cross-sectional study was carried out involving 80 manufacturing workers who were exposed to noise levels of above 85dB. The response rate was 80%. Sound level meter (SLM) was used to measure workplace ambient noise level. O'Donnell Personal Stress Inventory was used to measure stress level and Copenhagen Psychosocial Questionnaire (COPSOQ) was used to measure psychosocial factors of stress. While the level of sleep disturbances was measured via Pittsburgh Sleep Quality Index (PSQI).

Result:

Thirty respondents (38%) were classified to be stressful and 57 respondents (71.3%) were having poor sleep. Noise was found to be insignificant in predicting stress level and sleep disturbances. Gender and interpersonal relationship significantly associated with stress levels. Work demand, marital status and income were significant in predicting sleep disturbances.

Conclusion:

Findings indicated that workers were protected from noise exposure by wearing ear plugs. However, the prevalence of sleep disturbance was high. Therefore intervention strategies to improve sleep quality should focus on those identified significant psychosocial work factors.

Keyword: Noise; Psychosocial work factors; Stress; Sleep disturbances