NOISE EXPOSURE LEVEL AMONG SHOPPING MALL WORKERS IN KUALA LUMPUR

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ABSTRACT

Introduction: The purpose of this study is to determine the risk of dangerous noise exposure among workers at several selected locations in two busy shopping malls in Kuala Lumpur. Workers spent at least 8 hours in these locations and exposure to high level of noise at an extended period of time can increase the risk of hearing loss and tinnitus.

Methods: Noise levels were measured at several locations within an arcade, a bowling centre and a karaoke centre of two shopping malls. Workers were interviewed about their working hours, usage of hearing protection, perception of noise at workplace and whether they suffer from any hearing problem. Reading of noise levels at each location were taken on a weekday and a weekend in three time slots at 0900-1100 hours, 1400-1600 hours and 2000-2200 hours. Three measurements in 5-minute durations were obtained in each time slots with a total of 63 readings at the arcade, 18 readings at the bowling centre and 45 readings at the karaoke centre.

Results: Generally, Mean Continuous Equivalent Level (Leq) exceeded 80dB at the arcade and bowling centre with a maximum SPL reaching 103.2 dB and 105.1 dB respectively. The places tend to be noisier at night and during the weekend (89 dBLeq). No workers reported wearing hearing protection while working.

Conclusions: The workers at the arcade and bowling centre are exposed to a high level of noise with an excess risk to develop material hearing impairment of 1% to 8%. To reduce the risk of getting noise-induced hearing loss, it is imperative that workers are informed of the risk and provided with hearing protection device

Keywords: noise exposure level, shopping mall, worker, noise induced hearing loss,

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