

UNIVERSITI TEKNOLOGI MARA

**OCCUPATIONAL NOISE EXPOSURE TO TOLL
TELLERS AT DIFFERENT WORK SHIFT**

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DECLARATION

I declare that this thesis entitled "Occupational Noise Exposure to Toll Tellers at Different Work Shift" is a presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due references to the literature and acknowledgement of collaborative research and discussions. The project was done under the guidance of En. Hashim Ahmad as Project Supervisor. It has been submitted to the Faculty of Health Sciences in partial fulfillment of the requirement for the Degree of Bachelor in Environmental Health and Safety (Hons.).

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Abstract

Occupational Noise Exposure to Toll Tellers at Different Work Shift

Nazimah Binti Ishak

Introduction: A cross-sectional comparative study of occupational noise exposure and psychological health effects was conducted among workers at a toll plaza. There were 60 workers (n=60) consists of 30 workers (n=30) shift A and 30 workers (n=30) shift B who perform their job at noise environment. **Objective:** The aim of this study is to determine the occupational noise exposure among the toll plaza tellers. Other objectives are to determine; the noise level at different time, association between noise level and traffic assessment and association between noise level and psychological health effects. **Methodology:** Dose of noise exposure and average of noise level (Lavg) at toll plaza was measured using dosimeter. The inclusive criteria; full time job and work more than 3 months while, the exclusive criteria are work less than 3 months and have health problem. Questionnaires were distributed to identify demographic data, employment period and psychological health effect due to noise exposure. **Result:** The noise level at toll plaza not exceeds the PEL limit, but night time reading had slightly exceeded the limit. However, dose of noise exposure shown more than 1 as the standard. There were significant difference (p-value <0.05) between the working hours and hypertension (0.047) and insomnia (0.012). Besides, there were association between employment period and hypertension (0.015), anxiety (0.003) and emotional disturbance (0.005). **Conclusion:** The results suggest that there was a positive association between noise exposure and psychological health effects. Even though, the noise level at toll plaza below the PEL the workers still exposed to noise. It because of level of noise dose exceeds the limit. The control measure should be taken to reduce the risk of workers.

Keywords: occupational noise, toll tellers, psychological, work shift