P122 RISK OF NOISE-INDUCED SENSORY HEARING LOSS AMONG WOOD FACTORY WORKERS, THAILAND

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Objectives Noise-induced hearing loss can be prevented. A cross-sectional study aimed to a) assess sound pressure level (SPL) and average SPL for an 8-h period at working sites; and b) examine frequency of noise-induced hearing loss (NIHL) from audiometric screening and factors affecting NIHL of workers.

Methods The samples recruited by purposive sampling comprised a) 18 factory departments, and b) 303 workers being removed from loudness for at least 8 h and voluntary willing to participate in this study. The research instruments included a) a sound level meter (Larson David 800 B), b) an audiometer (Fornix FA 12) and the quietest office room, and c) a questionnaire and recording forms. The χ^2 test, relative prevalence (RP), and 95% CI were employed to analyse data.

Results The findings showed the maximum SPL of 110 dB(A) and average SPL for an 8-h period of 91.9 dB(A) in the department of raw material preparation. Prevalence of NIHL was 52.1%. The sample used hearing protection devices of 23.1%. Factors significantly associated with NIHL at $p \leq 0.05$ were aged ≥35 years (RP 1.80; CI 1.50 to 2.17), working year ≥5 years (RP 1.29; CI 1.04 to 1.60), average SPL at working sites ≥85 dB(A) (RP 1.61; CI 1.09 to 2.37), listening to loud radio and television (RP 1.68; CI 1.40 to 2.03).

Conclusions To avoid excessive noise, the workers at risk should be encouraged to use hearing protection devices properly. Confirmatory audiograms and hearing conservation programs are needed to limit further hearing loss and its affect.