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Noise-induced hearing loss in small-scale metal industry in Nepal.

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Abstract

Background: There has been no previous research to demonstrate the risk of noise-induced hearing loss in industry in Nepal. Limited research on occupational noise-induced hearing loss has been conducted within small-scale industry worldwide, despite it being a substantial and growing cause of deafness in the developing world. Method: The study involved a cross-sectional audiometric assessment, with questionnaire-based examinations of noise and occupational history, and workplace noise level assessment. Results: A total of 115 metal workers and 123 hotel workers (control subjects) were recruited. Noise-induced hearing loss prevalence was 30.4 per cent in metal workers and 4.1 per cent in hotel workers, with a significant odds ratio of 10.3. Except for age and time in occupation, none of the demographic factors were significant in predicting outcomes in regression analyses. When adjusted for this finding, and previous noise-exposed occupations, the odds ratio was 13.8. Workplace noise was significantly different between the groups, ranging from 65.3 to 84.7 dBA in metal worker sites, and from 51.4 to 68.6 dBA in the control sites. Conclusion: Metal workers appear to have a greater risk of noise-induced hearing loss than controls. Additional research on occupational noise-induced hearing loss in Nepal and small-scale industry globally is needed.

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