Occupational Noise Induced Hearing Loss Among the Dental Professionals Working at Dental Institutes in Sri Lanka.

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Noise at the dental setup has an adverse effect on the hearing ability of the dentists. This study aimed to determine the prevalence of hearing loss among dental practitioners and to identify the demographic and service-related factors associated with hearing loss among dental practitioners working at dental institutions in Sri Lanka.

A descriptive cross-sectional study was designed to include 155 dental professionals working at three dental institutions in Sri Lanka; the National Dental Hospital (teaching)- Colombo, Dental Teaching Hospital-Peradeniya, and Institute of Oral Health- Maharagama. Data were collected through an interviewer-administered questionnaire which obtained information on auditory symptoms, demographic and work-related data and a standard hearing assessment; Pure Tone Audiometry where hearing threshold >15dB is considered as having a loss. Descriptive statistics and regression analysis were used to analyse data.

Participants were in 25- 60 age range. Majority consisted of females, working 6 days per week and attached to restorative dentistry. Work experience ranged from 1 – 37 years. Only 39.4% of dentists were reported to get exposed to loud sounds apart from dentistry. According to the hearing test, 70% of the dentists in the present study were found to have a hearing loss at least in one ear, where left ears were affected more. However, irrespective of the ears, having a normal hearing or hearing loss at hearing thresholds of 6kHz was noted to be poorer, while relatively better hearing in lower frequencies which is characteristic of hearing loss due to noise exposure. The proportion of dentists who experienced tinnitus and difficulty in speech recognition was 14%, while 21% reported difficulty in the following speech only when there is background noise. Age, work experience, specialization in general dentistry, and perceived speech recognition difficulty were significantly associated with hearing loss. More than 10 years of work experience and perceived speech recognition difficulty in noise were significant indicators of existence of hearing loss in both ears.

Dentists attached to the three dental institutes are at risk of developing hearing loss. It is recommended to conduct annual hearing check-ups and take necessary measures to reduce exposure to noise in the dental setup.

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