Hearing Threshold Levels among Clothes Convection Industry Workers in Klaten, Central Java, Indonesia

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Abstract

Occupational Hearing Loss (OHL) is observed when employees are subjected to high decibel levels or ototoxic substances that damage one's hearing. Noise-induced hearing loss (NIHL) is a condition that progresses gradually and is frequently unnoticed in its early stages due to the absence of observable symptoms. Noise-induced hearing loss is usually detected after effects on hearing ability, difficulty understanding speech, and affected communication. Most NIHL causes permanent neural damage but is preventable. The study aims were to determine the prevalence of decreasing hearing threshold among workers in the cloth convection home industry at Klaten, Central Java, Indonesia. The study used an observational analytic approach with a cross-sectional design, and the sample comprised 21 workers from the home industry. Through interviews, we collected demographic data, the onset of working, and the use of protective devices. All participants underwent pure tone audiometry and were categorized by noise exposure environment. A total of 21 workers, 18 (85.7%) female and 3 (14.3%) male are 31-60 years old, and the most duration of work is 11-20 years. The main results showed that the prevalence of decreasing hearing threshold among workers in this study was 33.3%. Hearing threshold decreasing was correlated with the onset of working more than ten years of experience ($p = 0.001$, $r= 0.655$). Ear protection is a habit in 10 (47.6%) workers.

Keywords
Occupational diseases, Hearing Loss, Audiometry, Prevalence, Human, Noise induce.

Biographies

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