

A preliminary study on adverse health impacts due to occupational noise exposure in teaching environment

Perera T.C.I.¹ *, Abeysuriya U.I.P.², Amarasingha N.D.¹, Sethunga S.M.N.¹ and Bodhika J.A.P.¹

¹*Department of Physics, University of Ruhuna, Wellamadama, Matara, Sri Lanka*

²*Department of Otolaryngology, Teaching Hospital, Karapitiya, Sri Lanka*

Long-term exposure to occupational noise may cause various physiological, psychological and behavioral problems in workers. This study investigates health impacts on primary school teachers from occupational noise in primary school classes. The results presented here are based on investigations done on 37 randomly selected primary school teachers in Galle district. A questionnaire was used to gather relevant information directly from them. B&K Type-2250 handheld analyzer was used to measure noise levels in school classrooms. “Amplaid A321” audiometer was used to obtain the audiograms of Air Conduction (AC) and Bone Conduction (BC) measurements. Sound Pressure Levels of classrooms during the teaching hours are found to be between 72 to 75 dB(A). The results predicts that 96.77% of sample is having some hearing loss while 93.33% of them may suffer from “Sensorineural hearing loss”. Correlation coefficient predicts a positive and moderate relationship between the noise-exposed service period and hearing threshold of the left and right ears. The results indicate further that increase of time period of service exposed to noise, has a significant effect on the increase of hearing threshold, which reflects decrease in hearing ability.

Keywaords: noise exposure, hearing loss, primary school teachers and health impacts

*Corresponding author: isarangaperera@gmail.com