

INFLUENCE APPLYING NOISE REDUCTION RATING TO COMMUNICATION IN NOISY WORK PLACE IN PT. LX

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The research described herein was undertaken to determine how Hearing protector device (HPD) noise reduction rating (NRR) adjusted to noise level reduced communication disturbance among workers in noisy work place. HPD was often used as prevention of noise impact over companies in East Java which often applied in wrong way that could create workers hearing in over protection. The objective of this research was to measure that HPD with NRR adjusted to noise level could reduce communication disturbance. This was analytical research with one group pre-post design. 43 samples were taken from population which wore HPD with over protection then HPD was changed with NRR adjusted. Both condition was compared their communication disturbance. The samples requirements were normal hearing and less or at 40 years old. Communication disturbance was tested by speech in noise test (SPIN), and data was analyzed by Mc Nemar test. The research result shows that there is a significant difference communication disturbance between wearing of HPD with over protection and wearing of HPD with NRR adjusted. Wearing of HPD with over protection causes communication disturbance amount to 79.1 % and after changing of HPD with NRR adjusted, communication disturbance reduce become 9.3 %. Individual characteristics like work period, age, sex, hearing threshold do not interfere reduce factor of communication disturbance but education level does. Conclusion: worker who wear HPD with NRR adjusted to noise level can reduce communication disturbance. A higher Education level is a less communication disturbance, so education level seems interfere the communication disturbance. The company should apply HPD with NRR adjusted to noise level to all over workers in noisy work place as soon. Training, supervising to wearing of HPD and noise monitoring should be implemented to ensure prevention of noise impact.

Keywords: communication disturbance, hearing protector device, noise reduction