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Noise effect on strain index of machinery women age (25-30 year) in gas supplies parts manufacturers

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Abstract

Postural stress is one of the major complaints of women machinery works at gas supply parts manufacturers which have noise levels equal or above 85 dB in some of their workstations. Postural stress is caused by workplace ergonomic risk factors: High work-speed, repetitive work, poor body posture, excessive force and inadequate break time. Knowledge of the effect of the noise on the strain index is the subject of this investigation. The sample size was decided to be 50 persons, two groups were selected as targets. One group exposed to high level of noise, and the other group subjected to low noise level. The administrative employees were treated as control group. Nordic questionnaire was used to collect informations. Posture was assessed by observing each task and SI checklist was filled out of effort variable was measured by person's heat rate during her work and sport tester machine was used to this aim. Borg scale and then SI were calculated. Noise was measured by sound level meter and noise dosimeter in accordance with noise type. Data Analyzing was performed by man-whitney, Kruskal-Wallis, one-way ANOVA and spearman correlation in SPSS (ver.16) software. The results showed statistically significant relation between work experience and neck pain, shoulders pain and wrist/ hand pain. They also revealed that there is difference between strain indices two groups but it is not statistically significant. Strain index can be increased by noise levels above 85 dB but this is not of statistical consequence.

Keywords: Postural stress, Strain index, Noise above 85 dB, Industrial noise, Nordic questionnaire.

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