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Exposed Workers.

Relationship between Duration-Level of

Exposure and Blood Pressure Among High

Noise

Noise

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## ABSTRACT

purpose of this analytical cross-sectional study was The t.o study the effect of duration - level of occupational noise exposure on blood pressure and the relationships between other factors and hypertension among high noise exposed workers. This study Was conducted during January 1994 to July 1994 in a group of 223 female textile workers. 183 female metal stamping workers and 227 female teachers which were used as camparison groups. Personal history and stress questionnaire, sphygmomanometer, sound level meter and personal noise dosimeter were used to collect data. Chi-square test, t-test, Analysis of Variance, Pearson Product Moment Coefficient and Multiple stepwise logistic regression analysis were employed to analyze the data.

finding of this study revealed that in age group 35-40 years of both textile workers and metal stamping workers had mean systolic and diastolic blood pressure higher than the comparison group (P < 0.001). In the age group of more than 50 years, the result showed that the textile workers had mean systolic blood pressure higher than comparison group (P(0.01). Some significance factors which related to blood pressure were percent noise dose, number of years exposed to noise, number of years used personal protection equipment (earplugs), age and body mass index. According to a multiple logistic regression analysis, the prevalence of essential hypertension was found to be statistically significant a compare to family history hypertension (OR = 4.37), Age (OR = 1.24) and percent noise dose of (OR = 1.01)

It is recommended from this study that reducing of noise level be very important the educational and survillance programs are also essential among high noise exposed workers.