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A study to assess the knowledge and the ill effects of noise pollution among welding workers in Thiruvannamalai district

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Abstract
Noise is becoming serious environment pollution in the daily life of labour in textile industry and is increasing various health problems and the aim of the descriptive study was to assess the knowledge and to identify the ill effects of noise pollution among 30 welding workers. 30 samples were recruited by non-probability convenient technique with a semi structured questionnaires, sphygmomanometer, tuning fork and the result was out of 30 samples 29(96.66%) had inadequate knowledge regarding noise pollution and 70% of sample identified as no ill effects of noise pollution. The study level suggests, it is important to create awareness among welding workers about the noise pollution.

Keywords: knowledge, ill effects, noise pollution, welding workers

Introduction
Hearing loss is a well-documented primary biological adverse effect caused by occupational noise exposure. Therefore noise exposure increases the risk of out auditory adverse outcomes such as hypertension and mostly hearing loss and sleep disturbances and unwanted sound can damage psychological health noise pollution causes hypertension, high stress level, tinnitus, hearing loss, disturbance, and other harm full effects. Exposure to loud sounds for any length of time causes fatigue of the ear's sensory cells, resulting in temporary hearing loss or tinnitus (a ringing sensation in the ear). This is termed a temporary threshold shift. Chronic expose to noise may cause noise induced hearing loss may countries have in place registration recommends that expose to noise for those at work they tend to at a level of 90 BD as a maximum 8 hrs time and recognize that 85BD is a safer upper limit that should be aspired to.

Need For Study
Noise is an important pollution in welders. Exposure to excessive noise is the major avoidable cause of permanent hearing impairment in worldwide. The estimated costs of noise to developed countries range from 0.2% to 2%GDP (gross domestic product). There is a serious shortage of accurate epidemiological information on prevalence, risk factors and costs of noise induced hearing loss, especially in developing countries. The main concern of noise control is therefore the development, production and preferred used of low noise working equipment and processes. Comprehensive research needed in technical measures for noise abatement, setting standards, improving hearing protectors, and low cost medications for prevention

Materials and Method
A Descriptive design was chosen for the study to assess the knowledge and the ill effects of noise pollution**,** The sample size was compromised of 30 welding workers, Convenient sampling Technique is selected for the stud, The study was conducted in the community area compromises of 5OOO Peoples among that 500 peoples are working in welding company are the targeted population out of that 100 were accessible population, welding workers at selected noise pollution intensity area in Kolathur, Thiruvannamalai**,** Workers who fulfill the inclusion criteria were selected at the sample, The inclusion criteria: workers who exposed to ear problems**,** The tool will be consists of two section**,** Demographic variables sphygmomanometer, tuning fork, structured questionnaire method.

Data Collection Procedure
The Main study was conducted in welding company from 14.12.17 to 18.12.17 at Kolathur.
The investigator got permission from the company manager. Data was collected using structured multiple choice questionnaire and using the tool. After a brief introduction about the self and study consent was obtained. Privacy of the information was assured. The Respondent was made comfortable and data was collected using multiple choice questionnaires and using the tools. The Investigator was able to complete data collection within the stipulated period of one week.

Results
Regarding sex out of 30 samples 25(83.33%) samples were under the group of male, 5(16.66%) samples were under the group of female. Regarding experience out of 30 samples 6(20%) samples were under the group of 1 years' experience, 13 (43.33%) samples were under the group of 2 years' experience, 9(30%) samples were under the group of 3 years' experience, 2(6.66%) samples were under the group of 4-5 years' experience. Regarding education out the 30 samples 3(10%) samples were under the group of illiterate, 18(16%) samples were under the group of 5th, 8(26.66%) samples were under the group of 10th, 1(3.33), samples were under the group of 12th.

Table 1: frequency and percentage distribution assess the knowledge on noise pollution among welding workers (N=30)

	Inadequate		Moderate		Adequate	
	N	%	N	%	N	%
Knowledge on noise pollution	29	96.66%	1	3.33%	0	0

Table 1: shows that out of 30 samples 29 (96.66%) had inadequate knowledge 1(3.33%) had moderate knowledge 0(0%) had adequate knowledge regarding noise pollution.

Table 2: Frequency and distribution of Blood Pressure among Welding Workers

Low Blood Pressure		Normal Blood Pressure		High Blood Pressure	
N	%	N	%	N	%
1	3.33	15	50	14	46.66

Table 2: shows that 1 sample (3.33%) has low blood pressure, 15 samples (50%) has normal blood pressure and 14 samples (46.66%) has high blood pressure.

Table 3: Frequency and distribution of Hearing Loss among Welding Workers

Normal		Conductive Hearing Loss		Senso Neuro Hearing Loss	
N	%	N	%	N	%
21	70	5	16.66	4	13.33

Table 3: shows that has out of 30 samples 21 (70%) samples were under the normal, 5 (16.66%) samples were under the conductive hearing loss, 4 (13.33%) samples were under the sensoneuro hearing loss

Discussion

The focus of the study was to find out the knowledge and ill effects on noise pollution among welding workers. The nurse should encourage to create knowledge and ill effects of noise pollution. The nurse should develop their profession independently by displaying the instructional model. The model may be planned by the nurse for the individual increasing their knowledge.

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Conflict of interest

The Authors declare no conflict of interest.

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