

A Study to Assess the Knowledge regarding Occupational Hazards and Safety Measures among Automobile Workers at Selected Workshops in Chengalpet

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Abstract: Occupational health is essentially preventive medicine. occupational health should aim at the promotion and maintenance of the highest degree of physical and mental and social wellbeing of workers in all occupations; the prevention among workers of departures from health caused by their working conditions :the protection of workers in their employment from risks resulting from factors adverse to health ;the placing and maintenance of the workers in an occupational environment, and to summarize, the adaptation of works to man and of each man to his job. A descriptive cross sectional research design was selected for this study. The knowledge of occupational hazards and safety measures among automobile workers is assessed by quantitative approach. Study sample for the study is 100 and age group above 20 above 50 years. Purposive sampling technique has been chosen for this study. The self-structured questionnaire is used to assess the knowledge regarding occupational hazards and safety measures among automobile workers at selected workshops in chengalpattu.

Keywords: Knowledge, automobile workers, safety, occupational hazards, workshop

1. Introduction

Occupational health is essentially preventive medicine .occupational health should aim at the promotion and maintenance of the highest degree of physical and mental and social wellbeing of workers in all occupations ;the prevention among workers of departures from health caused by their working conditions :the protection of workers in their employment from risks resulting from factors adverse to health ;the placing and maintenance of the workers in an occupational environment, and to summarize, the adaptation of works to man and of each man to his job. (K.PARK 2015) Occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards. The health of the workers has several determinants, including risk factors at the workplace leading to cancers, accidents, musculoskeletal diseases, respiratory diseases, hearing loss, circulatory diseases, stress related disorders and communicable disease (World Health Organization) The Occupational Health Safety Act is designed to provide a broad framework for improving standards of workplace health and safety to reduce work-related injury and illness. It allows duty-holders to determine their approach to achieving compliance with the Act. The Act aims to: secure the health, safety and welfare of employees and other people at work; protect the public from the health and safety risks of business activities ;eliminate workplace risks at the source; and involve employers, employees and the organization that represent them in the formulation and implementation of health, safety and welfare standards .Throughout the Act, the meaning of health includes psychological health as well as physical health (Occupational Health Safety Act 2005)

Objectives

- 1) To assess the level of knowledge regarding occupational hazards and safety measures among automobile workers
- 2) To determine the associate the level of knowledge on occupational hazards and safety measures with demographic variables among automobile workers

2. Material and Methods

Descriptive cross sectional study design was adopted by the investigator to assess the knowledge regarding occupational hazards and safety measures among automobile workers at selected workshops. The study was conducted at Chengalpattu, Tamil nadu. The samples who met the inclusion criteria were selected by using purposive sampling technique. Hundred samples were selected for the study, Data was collected using self -structured questionnaire to assess demographic profile and associate with their level of knowledge. The project has been approved by the ethics committee of the institution. Informed consent was obtained from the participants before initiating the study. The investigators provided instructions for filling the questionnaire and the guided the workers .Understanding of each question was checked by asking the workers to repeat the meaning. During the filling of questionnaire, the investigators helped the workers throughout and helped simplifying the meaning of each questions. Clarifying doubts and checking for completeness of filling up the questionnaire. Chi square test was used to test the association between categorical variables. P<0.05 was taken as statistically significant.

3. Results

Results showed the majority of the workers are belong s to age group (20-25) are 35 (35%) and above 40 years are 23 (23%). Most of them were UG 31 (31%) and diploma 21 (21%). Most of the were belongs to Hindu 61 (61%) and Christian 19 (19%).most of them were family income 8000-10, 000 are 33 (33%) and above 10, 000 are 33 (33%).most of them were years of experience are 2-3 years34 (34%) above 5 years 28 (28%).most of them were urban 56 (56%) and rural are 44 (44%).most of them were joint family 54 (54%) and nuclear are 46 (46%).most of them were receiving information are by media 42 (42%) and are 22 (22%) by health workers. The level of knowledge is 69 % are adequate knowledge and 25% are moderate knowledge and 6% are inadequate knowledge. There was statistically significant found between age, education, religion and years of experience and family income and the level of knowledge on occupational hazards and safety measures

Section 1

Figure 1: Frequency and percentage distribution of the level of knowledge regarding Occupational hazards and safety measures

S.No	Level of Knowledge	Frequency	Percentage
1	In adequate knowledge	6	6%
2	Moderate knowledge	25	25%
3	Adequate knowledge	69	69%

Figure-1 Showed that majority of the people had adequate knowledge 69% and 25% of moderate knowledge and 6% are inadequate knowledge on occupational hazards and safety measures among automobile workers at selected workshop in chengalpet

Table 2: This section deals with the association between demographic variables with the level of knowledge on occupational hazards and safety measures at selected workshop in chengalpet

S.no	Demographical variable	In-adequate knowledge		Moderate knowledge		Adequate knowledge		Chi-square value
		NO	%	NO	%	NO	%	
1	AGE:							X ² =4.086 df=6 S
	a) 20-30 yrs	2	2%	6	6%	27	27%	
	b) 30-40 yrs	2	2%	7	7%	11	11%	
	c) 40-50 yrs	1	1%	6	6%	15	15%	
	d) above 50 yrs	1	1%	4	4%	18	18%	
2	EDUCATION:							X ² =5.395 df=6 S
	a) Illiterate	2	2%	4	4%	9	9%	
	b) SSLC	2	2%	6	6%	10	10%	
	c) HSC	1	1%	4	4%	11	11%	
	d) Diploma	0	0%	4	4%	16	16%	
	e) UG	1	1%	8	8%	22	22%	
3	RELIGION:							X ² =2.657 df=6 S
	a) Hindu	4	4%	13	13%	44	44%	
	b) Muslim	1	1%	3	3%	13	13%	
	c) Christain	1	1%	7	7%	11	11%	
	d) Others	0	0%	1	1%	2	2%	
4	FAMILY INCOME:							X ² =16.684 df=6 S
	a) 4000-6000Rs	3	3%	1	1%	7	7%	
	b) 6000-8000Rs	1	1%	10	10%	12	12%	
	c) 8000-10000Rs	0	0%	8	8%	25	25%	
	d) Above 10000Rs	2	2%	6	6%	25	25%	
5	YEARS OF EXPERIENCE:							X ² =7.976 df=6 S
	a) 0-1 years	0	0%	6	6%	10	10%	
	b) 2-3years	4	4%	10	10%	20	20%	
	c) 3-5years	0	0%	7	7%	15	15%	
	d) Above 5 years	2	2%	4	4%	22	22%	
6	PLACE OF LIVING:							X ² =1.357 df=2, NS
	a) Rural	4	4%	11	11%	29	29	
	b) Urban	2	2%	12	12%	40	40	
7	TYPE OF FAMILY:							X ² =3.672 df=2, NS
	a) Nuclear family	1	1%	14	14%	39	39%	
	b) joint family	5	5%	12	12%	40	40%	
8	SOURCE OF INFORMATION:							X ² =2.241 df=6 NS
	a) Relatives	1	1%	5	5%	14	14%	
	b) Friends	0	0%	4	4%	12	12%	
	c) Media	4	4%	9	9%	29	29%	
	d) Health workers	1	1%	5	5%	16	16%	

Level of Knowledge

Showed that majority of the level of knowledge is 25%, are moderate knowledge, adequate knowledge are 69%, inadequate knowledge are 6%

4. Discussion

Shyam Sundar Budhathoki et al 2014; The present study, Awareness of occupational hazards and use of safety measures among welders: a cross-sectional study from eastern Nepal .A cross sectional study of 300 welders selected by simple random sampling from three districts of eastern Nepal was conducted using a semi structured questionnaire. Data regarding age, education level, duration of employment, awareness of hazards, safety measures and the actual use of safety measures were recorded .Overall, 272 (90.7%) welders were aware of at least one hazard of welding and a similar proportion of welders were aware of at least one PPE. However, only 47.7% used one or more types of PPE. Education and duration of employment were significantly associated with the awareness of hazards and of PPE and its use. The welders who reported using PPE during welding were two times more likely to have been aware of hazards (OR=2.52, 95% CI 1.09 to 5.81) and five times more likely to have been aware of PPE compared with the welders who did not report the use of PPE (OR=5.13, 95% CI 2.34 to 11.26).The welders using PPE were those who were aware of hazards and PPE. There is a gap between being aware of hazards and PPE (90%) and use of PPE (47%) at work. Further research is needed to identify the underlying factors leading to low utilization of PPE despite the welders of eastern Nepal being knowledgeable of it

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