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A Descriptive Study to assess the Knowledge Regarding Occupational Hazards and its Prevention among Laborers Working at Sharda University in Greater Noida, U.P.

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Abstract:-

Background of the study: The health and well-being of employees at work should be an ongoing concern for any organization. The primary goal of Research is to educate workers about many types of occupational hazards and how to prevent them.

Objectives:

- **Evaluation of workers' knowledge about occupational hazards and their prevention.**
- **To examine the relationship between knowledge level and selected demographic variables.**

Methods: This is a descriptive study conducted on 60 workers working at the construction site of Sharda University, Greater Noida. A convenience sampling technique was used. Data were collected using a self-structured knowledge questionnaire to determine the knowledge level of workers working at construction sites regarding workplace hazards and their prevention.

Results: This study showed that 11.7% had poor knowledge regarding occupational hazards and its prevention, majority 71.7% had average knowledge and 16% had good knowledge regarding occupational hazards and its prevention.

Conclusion: There was no significant relationship found between demographic variables and the level of knowledge among laborers. Hence researcher accepted null hypothesis. The knowledge of occupational hazards among the laborers was found to be inadequate.

Keywords:- *Occupational Hazards, Employee.*

I. INTRODUCTION

All aspects of occupational health include features of workplace health ,safety and focuses on the importance of hazard prevention. Many hazards can be avoided by using personal protective equipment. Employees' understanding of personal protection equipment is crucial for maintaining the health and safety of employees.

Occupational hazard is an activity in the workplace that may cause or increase risk. The Occupational Health and Safety Council states that about half of the world's population spends most of their time at work. Over 2 million individuals worldwide pass away at work each year, International Labor Organization says.

Occupational diseases are defined as conditions caused by exposure to various substances such as chemicals or chemicals in the workplace. High-risk workplaces are distinguished by exposure to hazardous substances that pose a serious threat to the health and life of workers.

The safety, health, and welfare of employees are the focus of the interdisciplinary discipline of occupational health and safety (OHS). To protect and improve the health of employees through avoiding, regulating, and eliminating workplace dangers and accidents that pose a risk to occupational health and safety. To improve and promote health and safety in the workplace, work environment and work organization. To improve the physical, mental and health condition of workers and to promote the development and maintenance of work and work relationships as well as their work capacity. enables employees to live socially and economically effectively and to contribute to their sustainable development.

Because most employees spend at least eight hours each day at their jobs, whether they are on a factory floor, a construction site, or both, work plays a significant part in people's lives. According to the ILO/WHO Health Committee, it "promotes and maintains the highest levels of health —physical, mental, and social; protects workers from health differences due to their work; protects workers from risks, change and care." Adapting to the thoughts and psychological characteristics of employees in the work

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environment, including the transformation of work for people and employees.

II. NEED OF THE STUDY

The construction sector, often seen as high-risk, has a substantial influence on the welfare and safety of its worker. Builders often work at heights using equipment and materials, which can be dangerous due to harsh working conditions and various hazards. According to 2017 ILO data 48,000 persons in India died as a consequence of occupational accidents, with the construction industry accounting for 24.20 percent of all fatalities. Aside from workplace deaths, some employees also risk non-fatal injuries and health risks. Given the scope and gravity of these challenges, investors should place a high priority on their employees' safety and wellness.

The majority of workers in the construction industry are untrained laborers. Developed nations have approximately 5 to 10% of their workforce engaged in construction work. Globally, over 90% of construction workers are men, however in certain emerging nations, the proportion of women is greater, representation and often work in low-skilled positions. Some countries rely on migrant workers for construction tasks, while others offer well-paying jobs and opportunities for financial stability. Unskilled construction work serves as an entry point to paid labor in construction and other.

III. RESEARCH DESIGN

RESEARCH APPROACH: Quantitative research approach.
RESEARCH DESIGN: Non-experimental descriptive design.

SETTING: Sharda University, Greater Noida.
POPULATION: Laborers working at construction site of Sharda University.

SAMPLE: 60 laborers working at construction site of Sharda University.
SAMPLING TECHNIQUES: Convenience sampling.

TOOLS FOR DATA COLLECTION : Using a self-structured knowledge questionnaire, we may evaluate how well people understand occupational risks and how to prevent them.

laborers working at Sharda University in Greater Noida, U.P".

PLAN FOR DATA ANALYSIS: Descriptive and interferential statistics.

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IV. DATA ANALYSIS AND INTERPRETATION

The process of evaluating laborers involves providing a detailed description of the collected samples, conducting data analysis, and interpreting the findings at Sharda University in Greater Noida's knowledge regarding occupational hazards and its prevention. A sample of laborers working at a construction site of Sharda University were given a self-structured tool to complete, and this was how the data was gathered.

The study's chosen objectives were taken into consideration when conducting the analysis and interpretation. Data was transferred onto a mastersheet after data gathering. To analyze and interpret the data, descriptive and inferential statistics were used.

V. THE FOLLOWING SECTIONS WERE USED TO ORGANIZE THE FINDINGS

- **Section-A:** Description of Socio-demographic Characteristics.
- **Section-B:** Analysis of knowledge regarding occupational hazards and its prevention.
- **Section-C:** Association between knowledge level regarding occupational hazards and demographic variables

Table 1: Based on demographic factors, the frequency and percentage distribution of participation (n= 60)

S.NO	DEMOGRAPHIC DATA	FREQUENCY(N)	PERCENTAGE(%)
1	Age		
	<18	13	21.6%
	19-23	14	23.3%
	24-28	14	23.3%
	>28	19	31.6%
2	Gender		
	Male	48	80%
	Female	12	20%
	Others	0	
3	Educational qualification		
	No formal education	20	33.3%
	Primary	8	13.3%
	Secondary	26	43.3%
	Sr. secondary	6	10%
4	Years of experience		
	1'2	19	31.6%
	3'4	13	21.6%
	5'6	10	16.6%
	>6	18	30%
5	Monthly income		
	<10K	19	31.6%
	10-15K	26	43.3%
	15-20K	13	21.6%
	>20-25K	2	3.3%
6	Types of residence		
	Organization provided	26	43.3%
	Own house	10	16.6%
	Rented house	14	23.3%
	Slums	10	16.6%
7	Relationship Status		
	Married	41	68.3%
	Unmarried	19	31.6%
8	Types of family		
	Nuclear	43	71.6%
	Joint	17	82.3%
9	Previous knowledge		
	Yes	40	66.6%
	No	20	33.3%

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Above findings in the table revealed that the majority of samples were 31.7% older than or equal to 28 years old, 80% of the samples were male,43.3% of the sample had secondary education,31.7% had experience (1-2) years,43.3 % have monthly income of (10001-15000),43.3 % have house which is provided by organization, 68.3% is married, 71.7% have nuclear family,66.7% have previous knowledge of occupational hazards and 71.7% have average knowledge about occupational hazards.

A. Section I A. Distribution of Samples Based on Their Age In Years

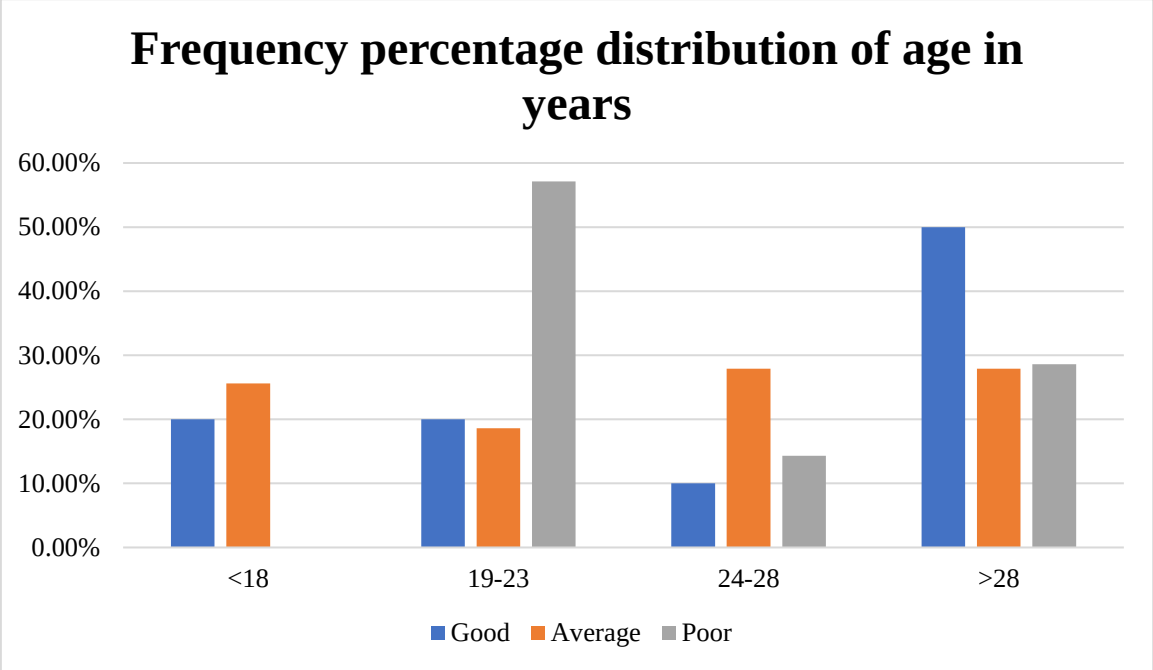

Fig 1: A bar graph depicting the age distribution of samples in years

B. Section I B. Distribution of Samples Based on Their Gender

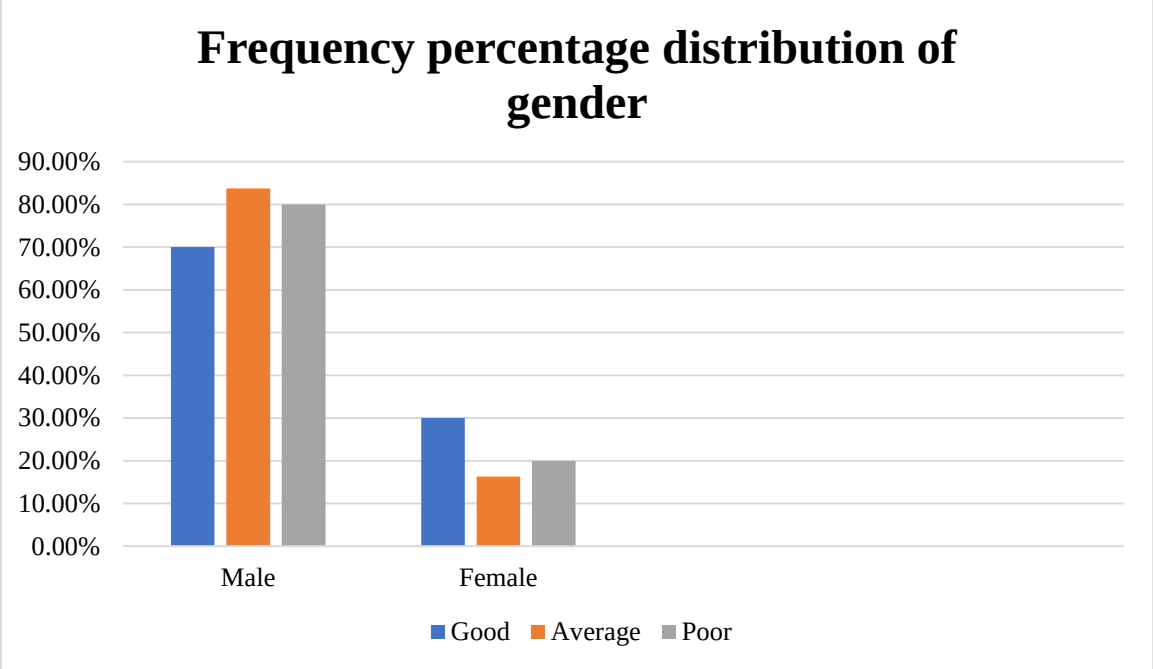

Fig 2: A bar graph depicting the gender distribution of samples

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C. Section I C. Distribution of Samples Based on Their Educational Qualification

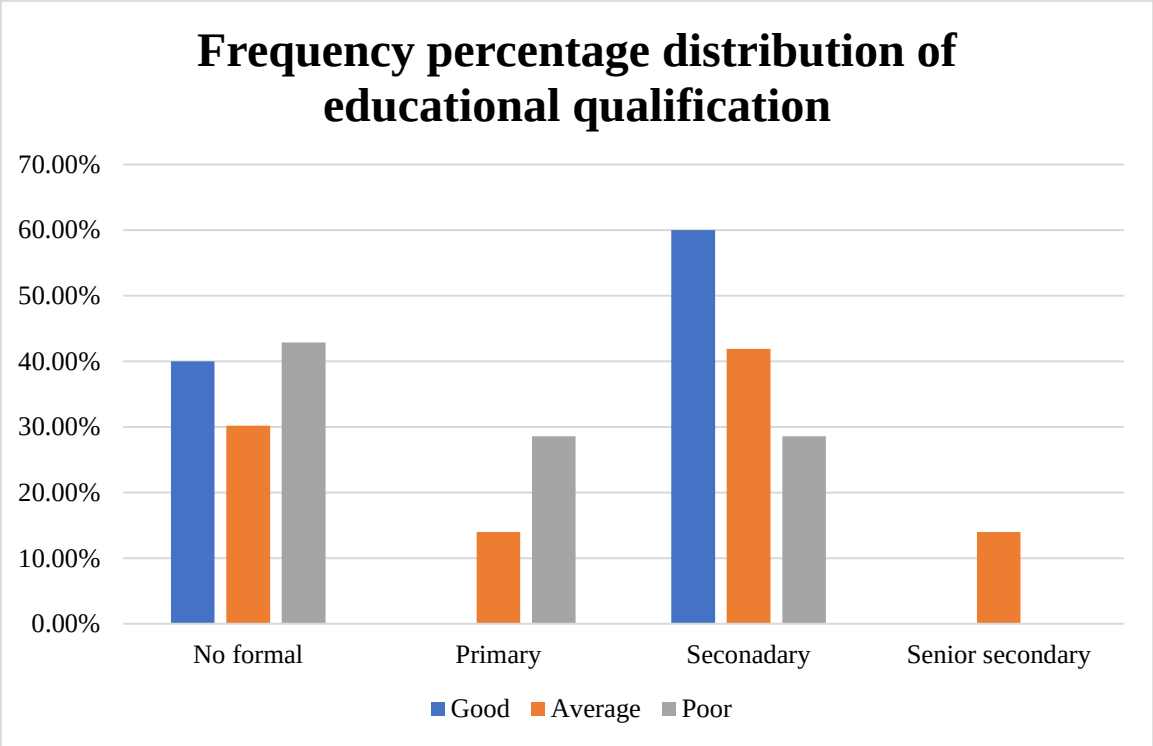

Fig. 3: A bar graph depicting the distribution of samples based on their educational level

D. Section I D. Distribution of Samples Based on Their Years of Experience

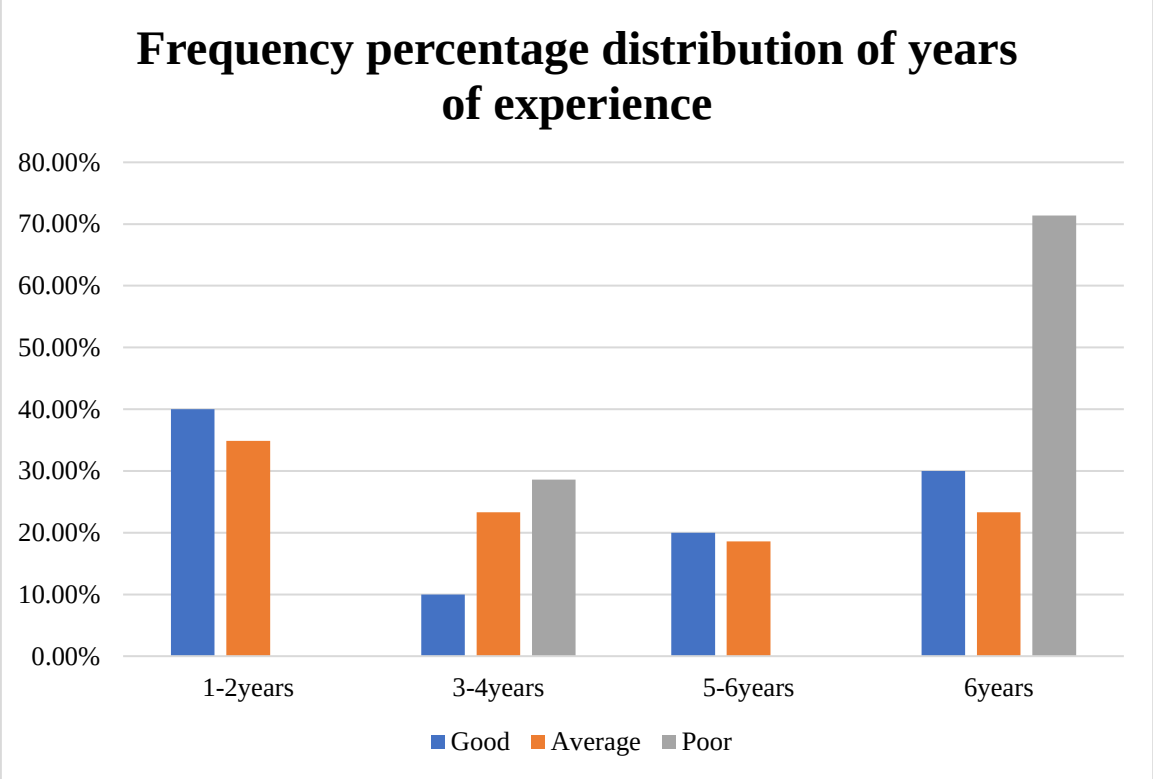

Fig 4: A bar graph depicting the distribution of samples based on their years of experience

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E. Section I E. Distribution of Samples Based on Their Monthly Income

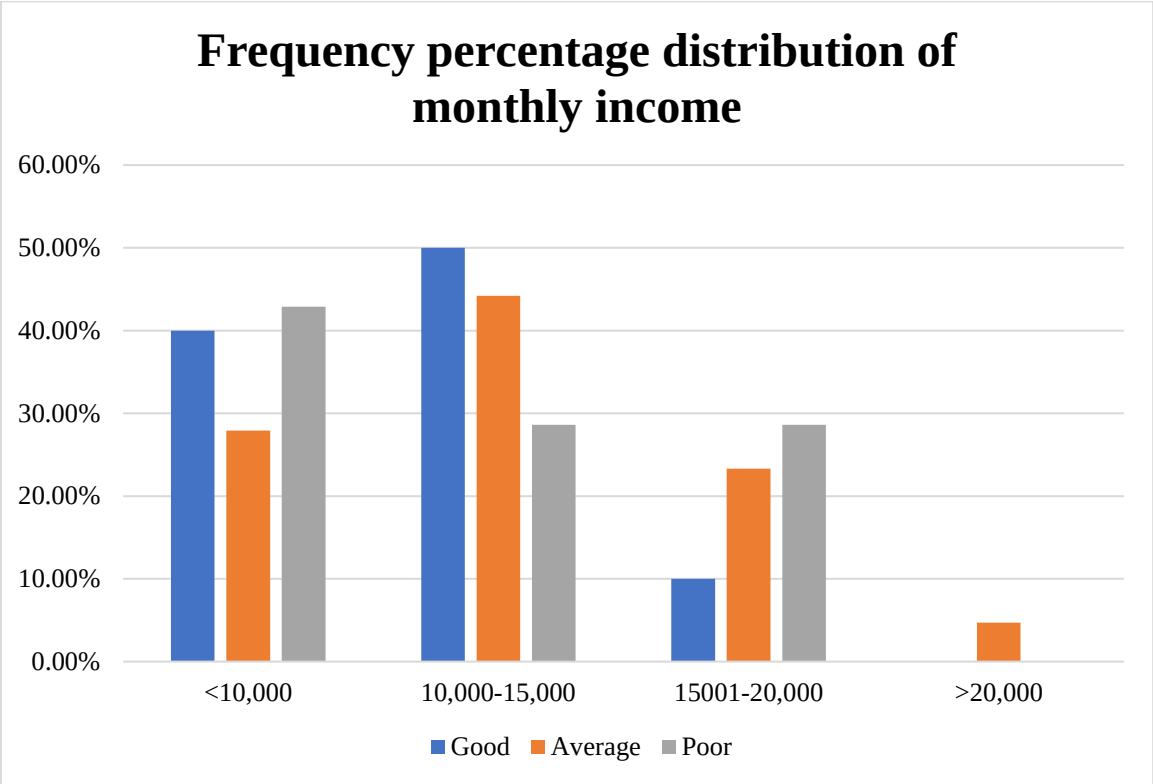

Fig. 5: A bar graph depicting the distribution of samples based on their monthly income

F. Section I F. Distribution of Samples Based on Their Type of Residence

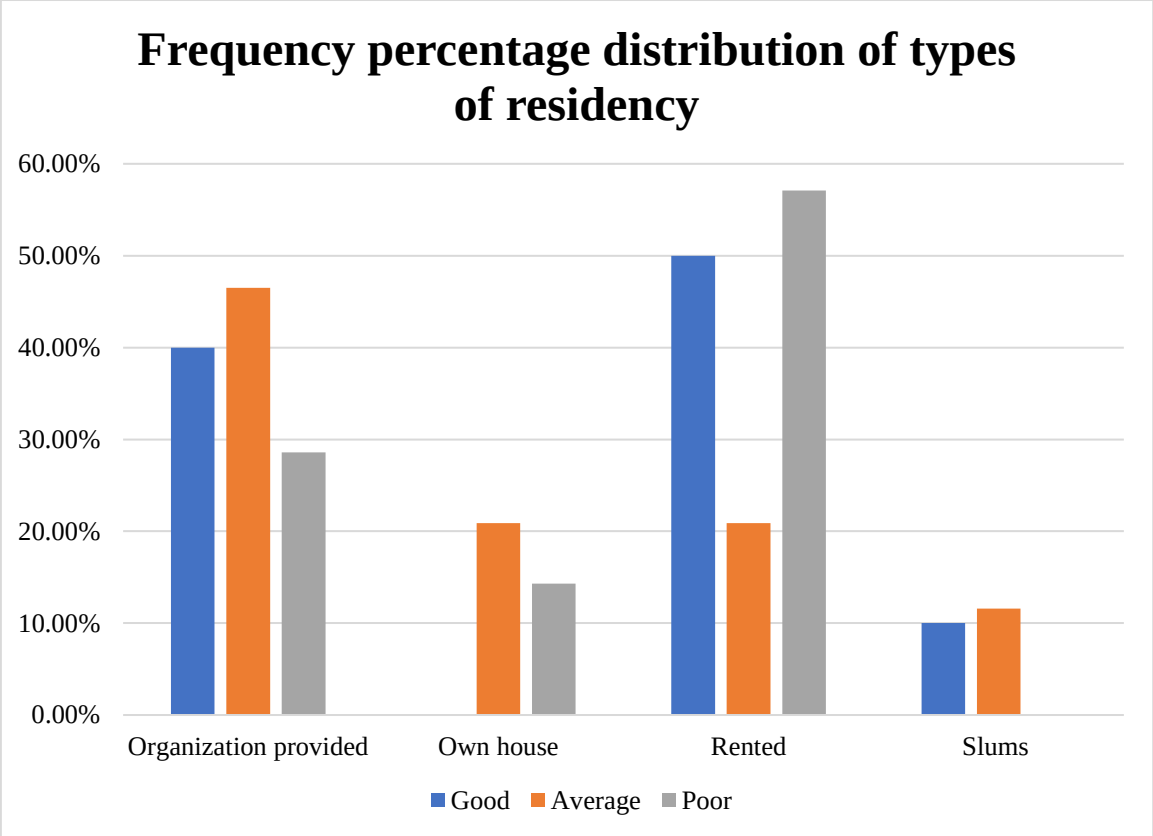

Fig. 6: A bar graph depicting the distribution of samples based on their type of residence

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G. Section I G. Distribution of Samples Based on Their Marital Status

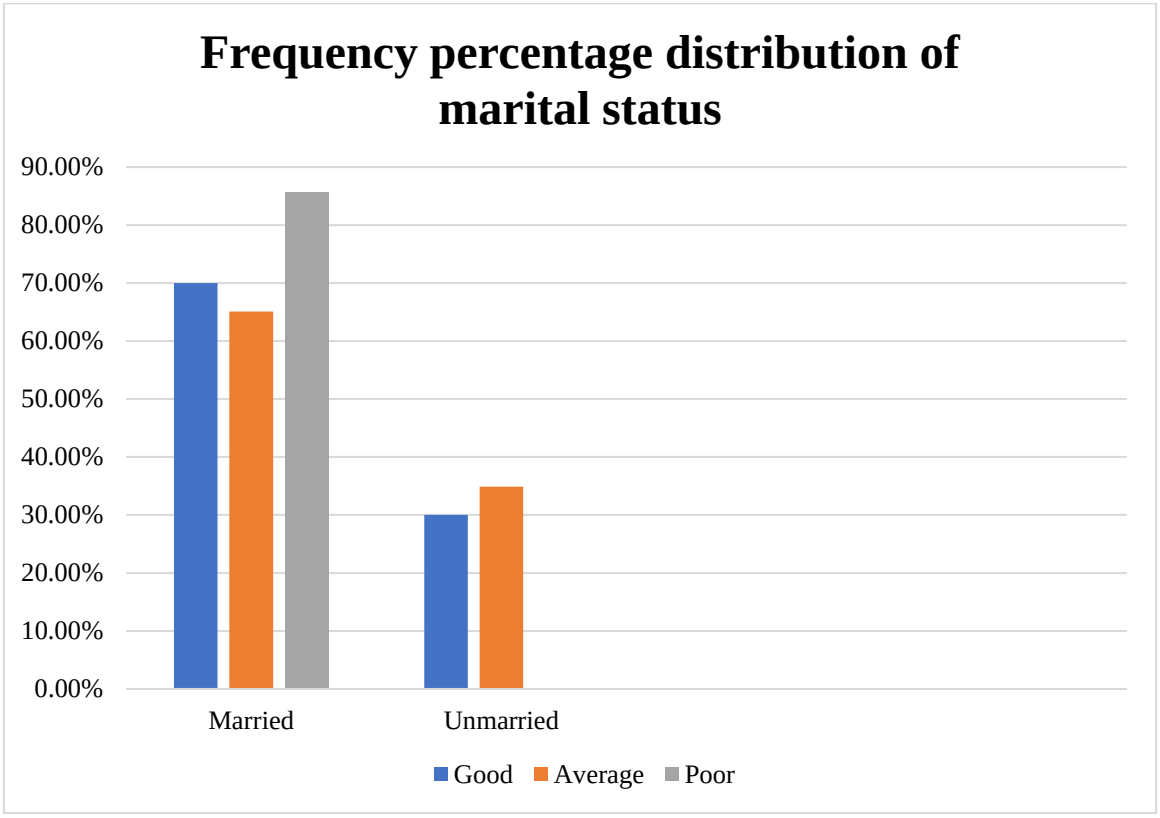

Fig. 7: A bar graph depicting the distribution of samples based on their marital status

H. Section I H. Distribution of Samples Based on Their Type of Family

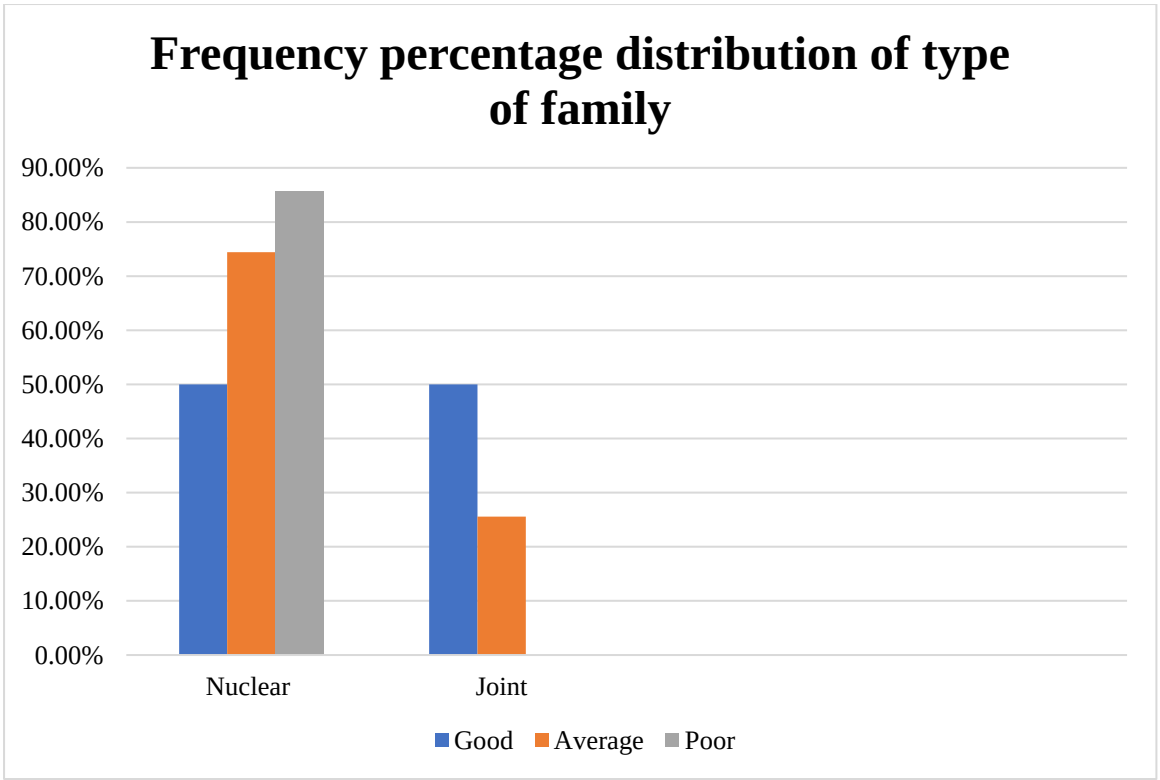

Fig. 8: A bar graph depicting the distribution of samples based on their type of family

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I. Section I I. Distribution of Samples Based on Previous Knowledge

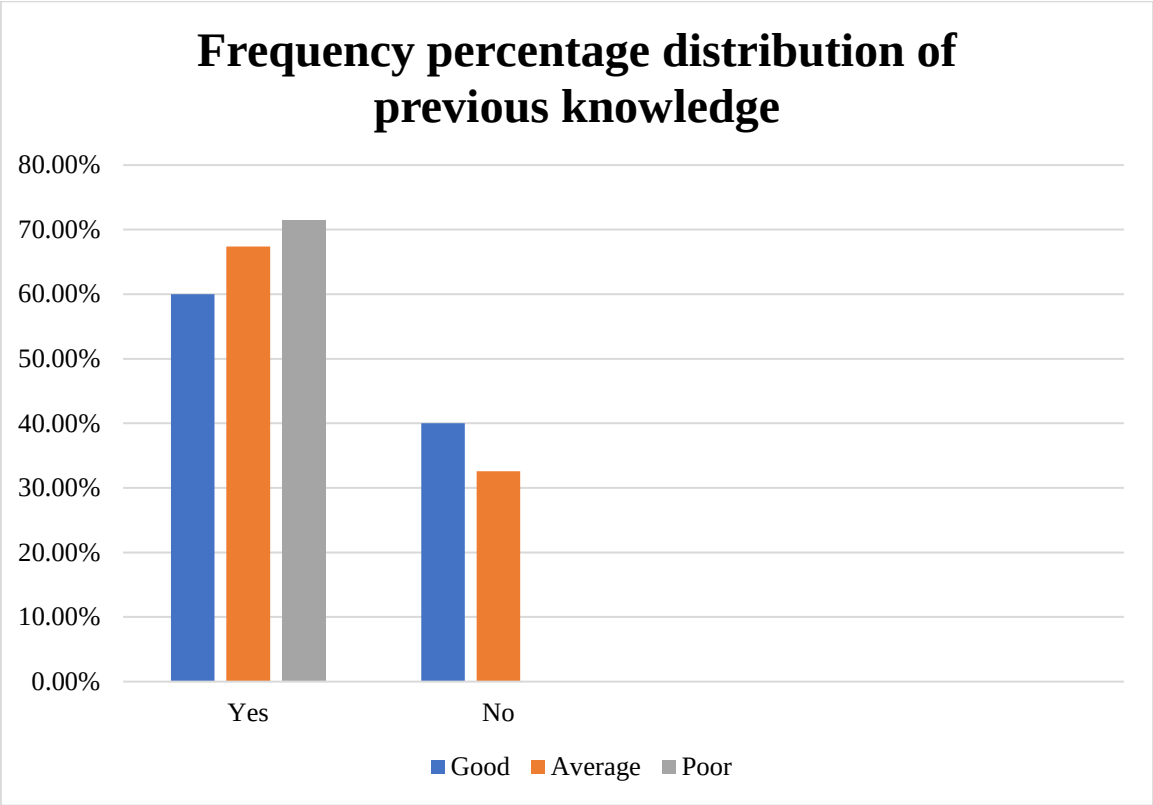

Fig. 9: A bar graph depicting the distribution of samples based on previous knowledge

Table 2: Descriptive statistics, frequency, and percentage distribution of the participants' knowledge scores (knowledge level) (n=60)

Knowledge level	Frequency(n)	Percentage
Good	10	16.7%
Average	43	71.7%
Poor	7	11.7%

J. Section II. A. A bar graph showing level of knowledge of participants

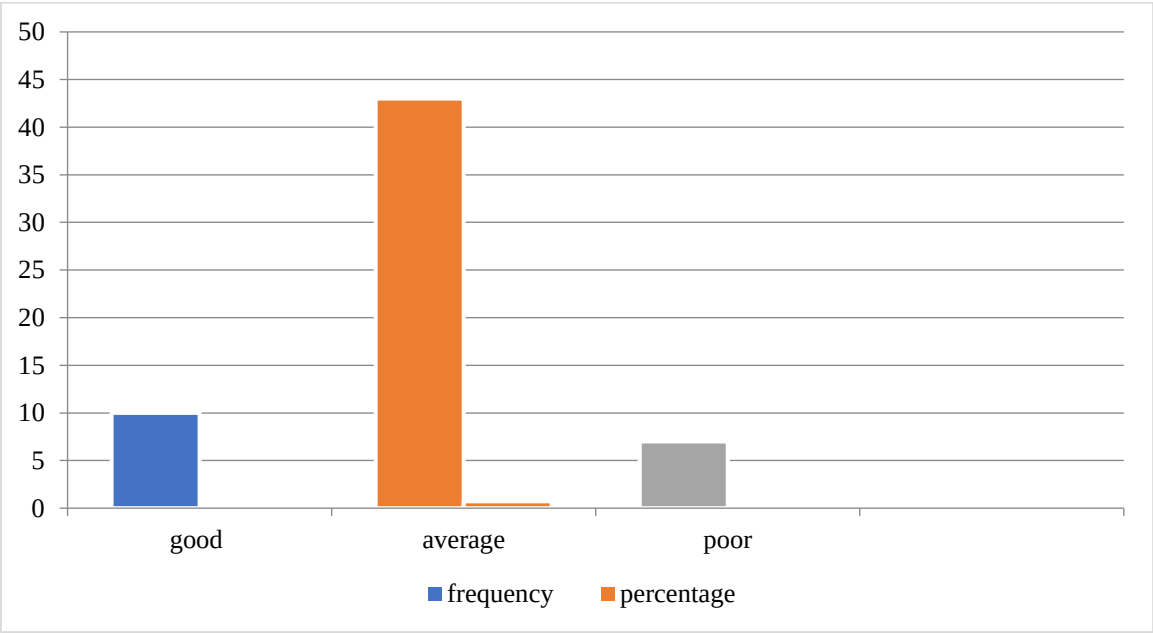

Fig. 10: A bar chart representing the knowledge levels of the sample population concerning occupational hazards and their prevention.

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Table 3: Correlation between the knowledge scores and chosen demographic factors of the laborers. (N=60)

Background Variables	Frequency (N)	Percentage %	Chi-Square Test (χ^2)
Age			
<18	13	21.7	
19-23	14	23.3	
24-28	14	23.3	□2=8.390
28>	19	31.7	P=0.211(Ns)
Gender			
Male	48	80	□2=1.313
Female	12	20	P=0.517(Ns)
Education Qualification			
No Formal	20	33.3	
Primary	8	13.3	
Secondary	26	43.3	□2=6.399
Senior Secondary	6	10	P=0.380(Ns)
Years Of Experience			
1-2 Years	19	31.7	
3-4 Years	13	21.7	
5-6 Years	10	16.7	□2=9.369
>6 Years	18	30	P=0.211(Ns)
Monthly Income			
<10000	19	31.7	
10,001-15,000	26	43.3	
15001-20,00	13	21.7	□2=2.773
>20,000	2	3.3	P=0.837(Ns)
Types Of Residence			
Organization Provided	26	43.3	
Own House	10	16.7	
Rented	18	30	□2=7.683
Slum	6	10	P=0.262(Ns)
Relationship Status			
Married	41	68.3	□2=1.196
Unmarried	19	31.7	P=0.550(Ns)
Types Of Family			
Nuclear	43	71.7	□2=3.153
Joint	17	28.3	P=0.207(Ns)
Previous Knowledge			
Yes	40	66.7	□2=0.283
No	20	33.3	P=0.868(Ns)

The results of a chi-square test performed to examine the significant link between chosen demographic characteristics in laborers and their knowledge level regarding occupational risks are shown in the table above. The test found no significant relationship between demographic characteristics and worker knowledge level. As a consequence, the null hypothesis was accepted by the researcher.

VI. SUMMARY OF THE STUDY

Occupational hazards encompass activities that may cause or increase risks in the workplace. The construction industry is rapidly growing worldwide and holds the second-largest economic activity position in India, next to agriculture. Construction workers face a higher susceptibility to certain illnesses and health issues compared to workers in other industries, with most of them being young, around 26.8 years old. It is critical that workers are well-informed about their workplace's occupational health and safety. According to the survey, while many workers are aware of risks and safety precautions, their understanding of specific types of hazards is limited. To address this, plant orientation, training

programs, proper guidance, and implementing necessary safety measures are essential to mitigate risks associated with the job. The current study aims to examine employees' awareness of occupational risks and their avoidance at the Sharda University building site in Greater Noida, Uttar Pradesh.

To get a better knowledge and insight into the chosen research subject, the study performed a thorough examination of both research and non-research literature. A quantitative research technique was used for this investigation. Purposive sampling was used to choose participants. The occupational hazard was the independent variable in the study, while knowledge level was the dependent variable

Data was gathered using a self-structured questionnaire, which consisted of two sections. Section A contained 9 multiple-choice questions related to demographic characteristics, while Section B comprised 20 multiple-choice questions.

To ensure content validity, six experts reviewed and validated the questionnaire items, considering factors such as adequacy, clarity, accuracy, and meaningfulness. Minor adjustments were made to the questionnaire based on the experts' feedback.

The pilot and final study was done at the construction site of Sharda university, Greater Noida. The total number of samples in final study was 60.

The study employed both descriptive and inferential statistics for data analysis and interpretation. The knowledge scores for occupational risks and their avoidance were calculated using the mean, median, and standard deviation. To ascertain the significance of the relationship between knowledge and demographic factors, Pearson's chi-squared test was utilized.

VII. MAJOR FINDINGS OF STUDY

➢ *Findings related to demographic variables*

- The largest proportion of samples, at 31.7%, belonged to the group of people who were older than 28.
- 80% of samples were male
- 43.3% of sample have secondary education,
- 31.7% have experience of (1-2) years
- 43.3 % have monthly income of (10000-15000)
- 43.3 % have house which is provided by organization
- 68.3% is married
- 71.7% have nuclear family

66.7% have previous knowledge of occupational hazards and 71.7% have average knowledge about occupational hazards

VIII. RECOMMENDATION

- A study can conducted to assess the knowledge regarding universal precaution among newly joined laborers.
- It is possible to run a research to evaluate the efficacy of first aid measures at accidental sites.

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