Assess the health status of constructional workers residing in Baru Sahib

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Abstract*—Numerous people are employed in the construction sector. Because they perform a variety of tasks, construction workers are susceptible to a variety of illnesses and injuries at work. Workers involved in road construction may be directly or indirectly exposed to several workplace hazards, such as dust, noise, vibration, heat and cold, and chemicals. To assess the health status of construction workers residing in Baru Sahib. Quantitative approach was selected for this study. A descriptive research design was used for the present study. This design was selected because the researchers were interested to assess the health status of constructional worker as they were easily accessible. The research setting for this study was Baru sahib. this research setting was easily accessible and data can be collected easily. Sample size was 91 for this study. Self - structured checklist was formulated to assess the health status of constructional workers. The study depicts, out of 91 constructional workers ,60% of participants has good health status (24-32), 40% of participants has average health status (12-23) and 0% participants has poor health status. The present study reveals that there was association between health status and selected socio demographic variables. It was found that age in years (p=0.659), education (p=1.08), monthly income (p=0.659), previous injury(p=1.000), work experience (p=0.065), phobia (p=0.197), heart rate(p=0.778), oxygen saturation (=0.389), blood pressure (p=0.405), body mass index (p=0.197) are significant. According to the analysis of the study, majority of participants have good health status and minority of participants has average health status. Some of the participants are alcoholic, have joint pain, do not meditate and exercise on daily basis thus underscore the need for the targeted public health intervention to raise awareness about benefits of good posture, exercise and meditation. Health education should be given that can improve the physical and mental wellbeing of the population, to be physically active for 30 minutes most days of the week. Lifestyle modification involves altering long term habits, typically of eating and physical activity, and maintain the new behaviors for longer period of time.

***Index Terms*—Health status, Constructional workers, occupational hazard, Health problems**

I. INTRODUCTION

Numerous people are employed in the construction sector. Because they perform a variety of tasks, construction workers are susceptible to a variety of illnesses and injuries at work. Studies on health assessment offer proof of the relationship between the causative agents and the health consequences.[1] According to International Labour Organization (ILO) figure accidents and diseases cause around 2.78 million deaths and 374 million non-fatal work-related injuries and illnesses worldwide each year. The economic cost of such a large number of deaths, injuries, and illnesses was estimated to be 3.94 percent of worldwide GDP each year. In India, occupational diseases affect 924,700 to 1,902,300 people each year, with 121,000 deaths. In India, more than 4.4 crore (44 million) laborers work in unorganized construction. The main aim of the study is to assess different health conditions among construction workers.[2]. This study will allow us to identify those individuals who all are at the risk of getting any respiratory, gastrointestinal, musculoskeletal illnesses. If the disease condition can be genetically transmitted from one generation to another generation, we can also assess the family members those are at the risk of getting it. By providing appropriate treatment, we can also reduce the risk of life-threatening illnesses. The nutrition pattern, sleeping pattern and the inappropriate habits of construction workers can also be assessed by the study so that needed interventions can be implemented to promote the health of individuals.[3]

II. NEED FOR THE STUDY

The burden of health problems among constructional work is increased. Construction sector involves many hazardous activities. Constructional workers are susceptible to various health and occupational hazards. The accident rate is very high when it is compared to other industries the accident that occur due to management and workers who have lack of safety awareness. This study assesses the health status of constructional workers consider implementing regular health checkups, providing access to occupational health services and promoting awareness about safety measures and emergencies at construction site. This study generally assesses for the health status of constructional worker and encourage them to adapt healthy lifestyle through wellness initiative and awareness campaign. Health assessments help addressing the risks of various health problems which can occur at construction sites. Health checkups provide opportunities for workers maintaining their wellbeing.[3] Previous studies shown that construction workers have poor health status, increased incidence of musculoskeletal problems such as lower back pain. Assessment of health status is essential to measure multiple functions of the body as well as to diagnose diseases at early stages, to predict and to prevent complications and to evaluate clinical outcomes after providing care to assess for the effectiveness of the plan It also focuses on understanding the meaning and importance of measuring health status at early stages.

III. REVIEW OF LITERATURE

A descriptive study was conducted in Pondicherry in March 2024. is a study assessing the knowledge, attitude, and utilisation of National Health Insurance Schemes among constructional health workers. a sample size of 30 health workers. Data were collected using demographic variables, self-developed knowledge and attitude questionnaires, and a self-developed utilisation questionnaire. These study results showed that most health workers (23, or 76.7%) possessed a moderately adequate level of knowledge, while 7 (23.3%) had inadequate knowledge. The study concludes that health workers have moderate knowledge, an unfavourable attitude, and low utilisation of the National Health Insurance Scheme.[4]

A study was conducted in Kanpur Uttar Pradesh 2023 on respiratory health. The study sample consisted of 50 workers selected through convenience sampling. Data collection was performed using a self-structured knowledge questionnaire. Participant's demographics revealed that 58% were aged 31-40, and only 8% were aged 51-60. Most participants (90%) worked 12-hour shifts. Prior knowledge of fine dust health hazards was present in 78% of workers. The result study showed that in the pre-test, 68% of participants had moderate knowledge, 24% had inadequate knowledge, and 8% had adequate knowledge. Post-test results showed an increase in knowledge, with 44% having adequate knowledge and 12% moderate knowledge[5]

IV. STATEMENT OF THE PROBLEM

A descriptive study to assess the health status of constructional workers residing in Baru sahib.

V. OBJECTIVES

1. To assess the health status of constructional workers.
2. To find out the association between health status with selected socio- demographic variables.

VI. RESEARCH METHODOLOGY

A quantitative research technique was adopted for the present study. A descriptive research design was appropriate for the present study. Research settings: The study conducted at:- Baru Sahib, District Sirmour, Himachal Pradesh. Total 91 samples were selected for the present study. Sample size was calculated by using formula n = n0 * N/n0 + (N-1). Convenient sampling technique (non-probability sampling) was adopted for the present study.

Data Collection Tool: Tool 1 Section A(8 items) : Socio demographic data sheet

It includes: Age, gender, education, monthly income, working experience, history of previous injury, phobia, vital signs, body mass index of constructional workers.

Tool 2 Section B : consisting the checklist to assess the health status of constructional workers.

It includes (32 items): Self-reported checklist - To assess the health status of constructional workers.
The permission from the Principal of Akal College of Nursing, Eternal University, Baru Sahib, and Permission was taken from the Sewadar incharge of Baru Sahib. After that data collected from 91 participants. Informed written consent was taken from the samples after giving explanation about the purpose of the study. Data was collected through online mode (Google form) by sending link on their contact number.

VII. ANALYSIS

SECTION A: Sociodemographic variable of the sample

Table 4.1 Frequency and percentage distribution according to socio demographic variables. N=91

VARIABLES	CATEGORIES	FREQUENCY	%
Age (in years)	18-30	9	9.9
	31-40	49	53.8
	41-60	33	36.3
	>60	0	0
Gender	Male	91	100
	Female	0	0
Education	Formal education	35	38.5
	Primary education	51	56.0
	Secondary education	5	5.5
	Graduate or more	0	0
Monthly income (in rupees)	5000-10000	2	2.2
	10001 -15000	43	47.3
	15001-20000	27	29.7
	More than 20000	19	20.9
Previous Injury	Yes	6	6.6
	No	85	93.4
Working experience (in years)	Less than 1 year	8	8.8
	1-3 years	31	34.1
	3-6 years	27	29.7
	More than 6	25	27.5

FIGURE 4.1 Distribution of Participants on the basis of age.

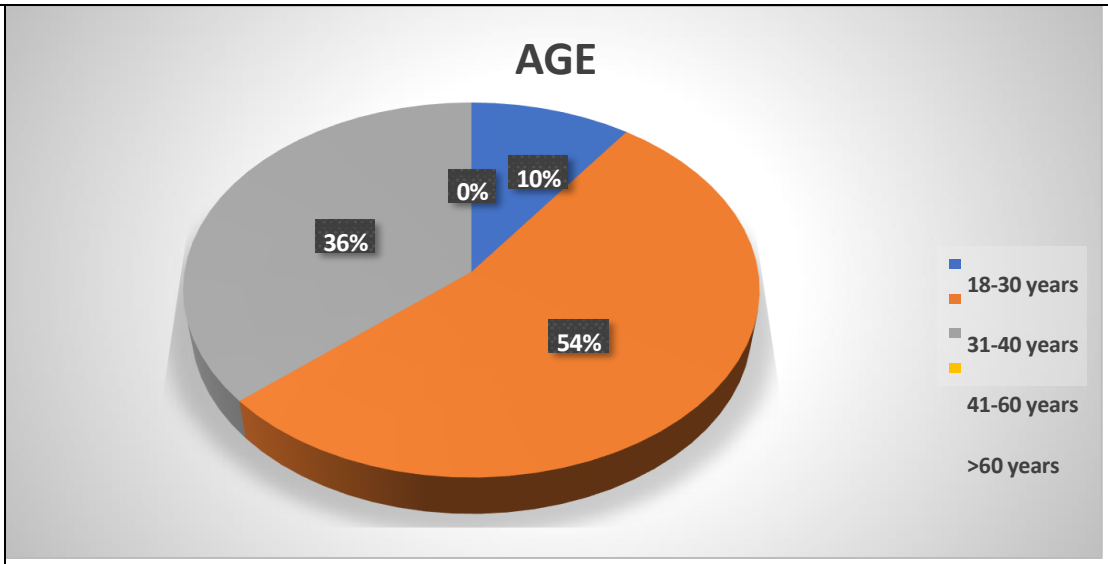


FIGURE 4.2 Distribution of Participants on the basis of gender. N=91

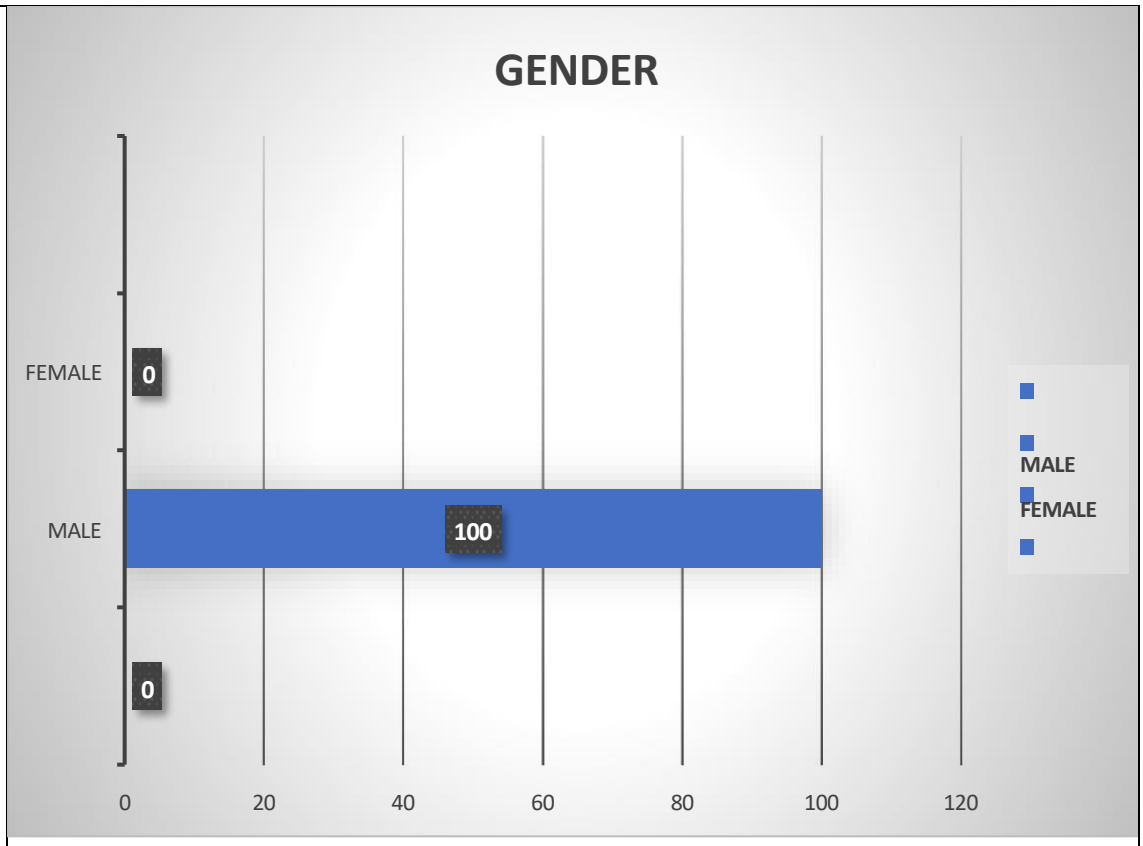


FIGURE 4.3 Distribution of Participants on the basis of Education.

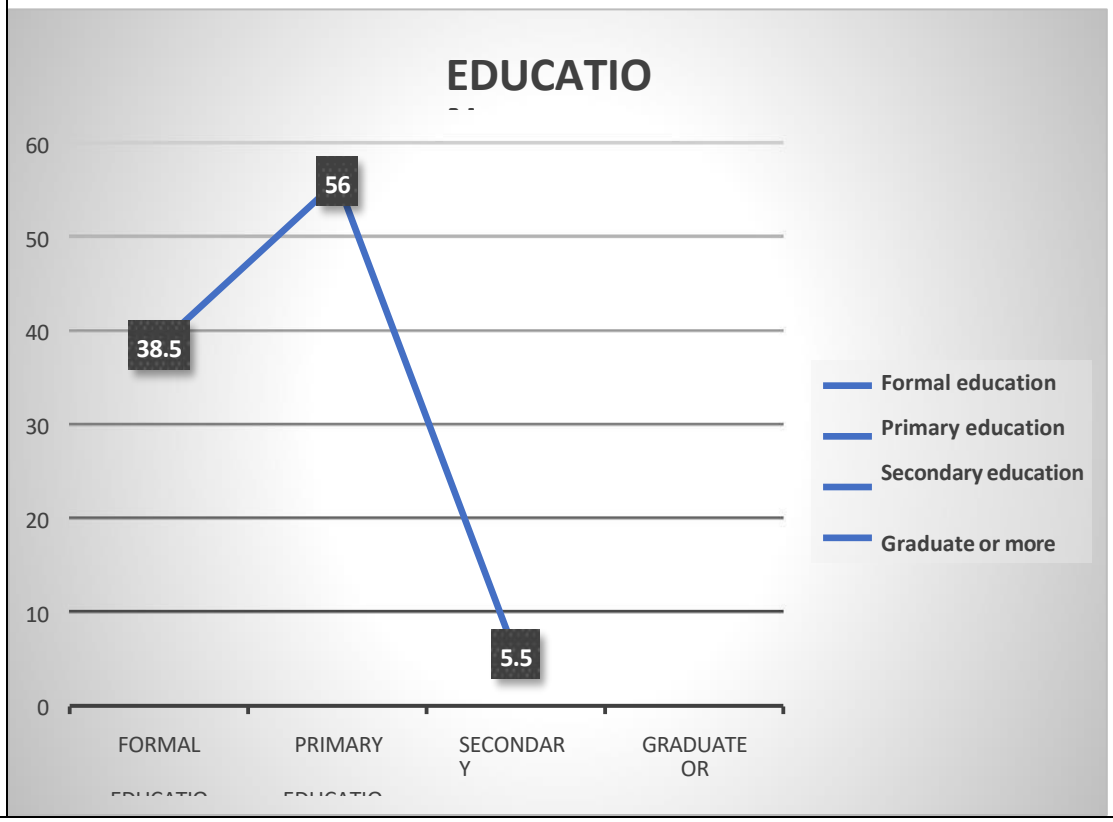


FIGURE 4.4 Distribution of Participants on the basis of Monthly Income.

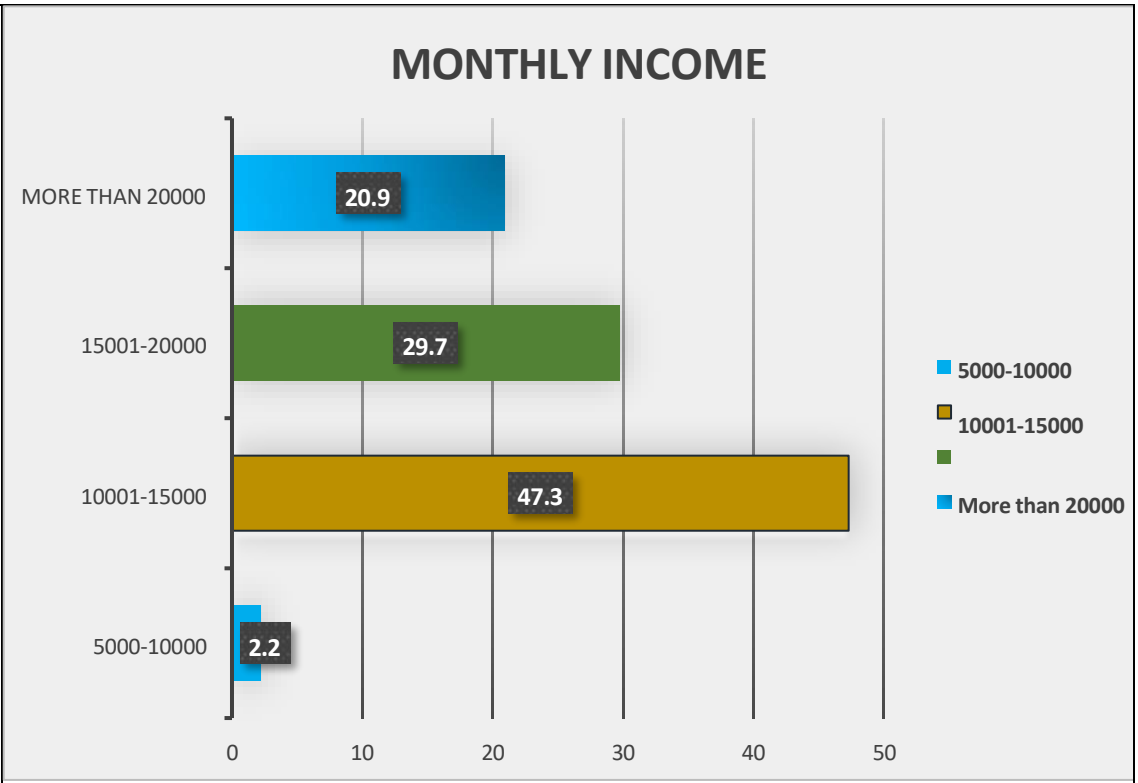


FIGURE 4.5 Distribution of Participants on the basis of Previous Injury.

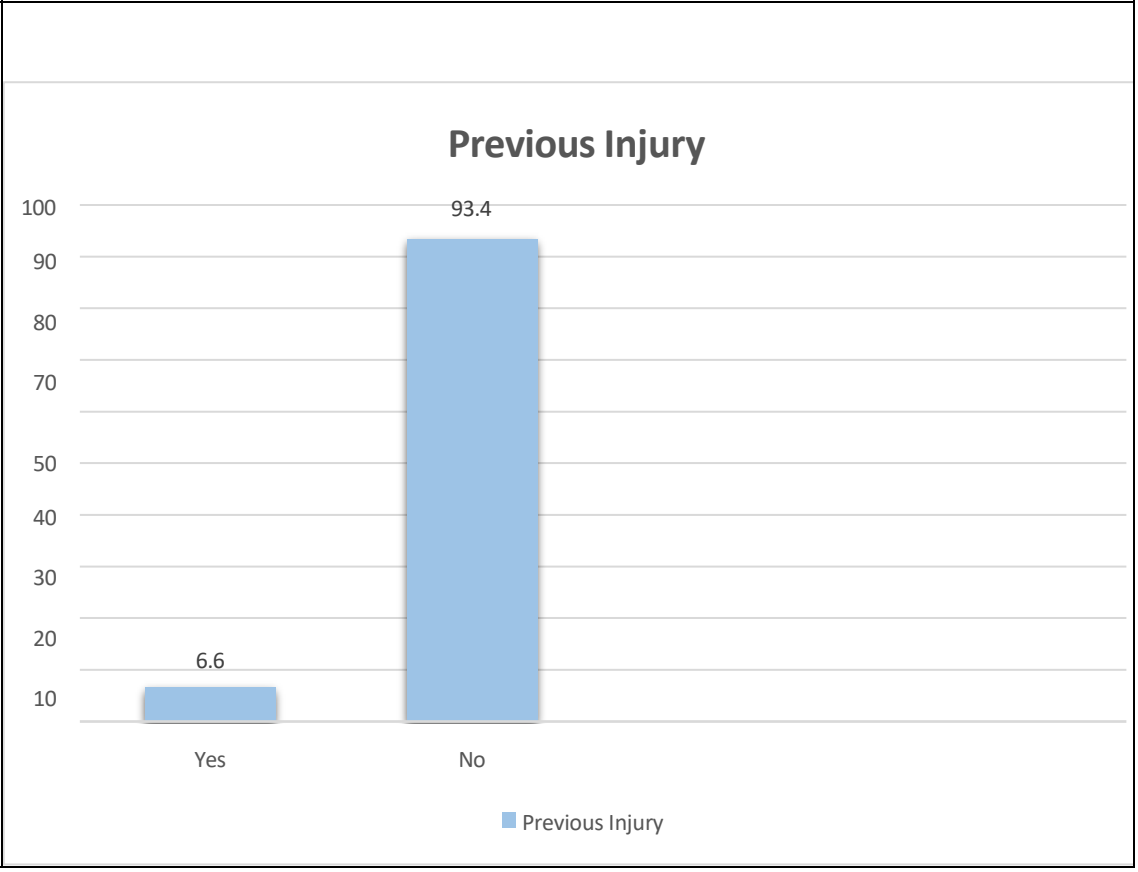
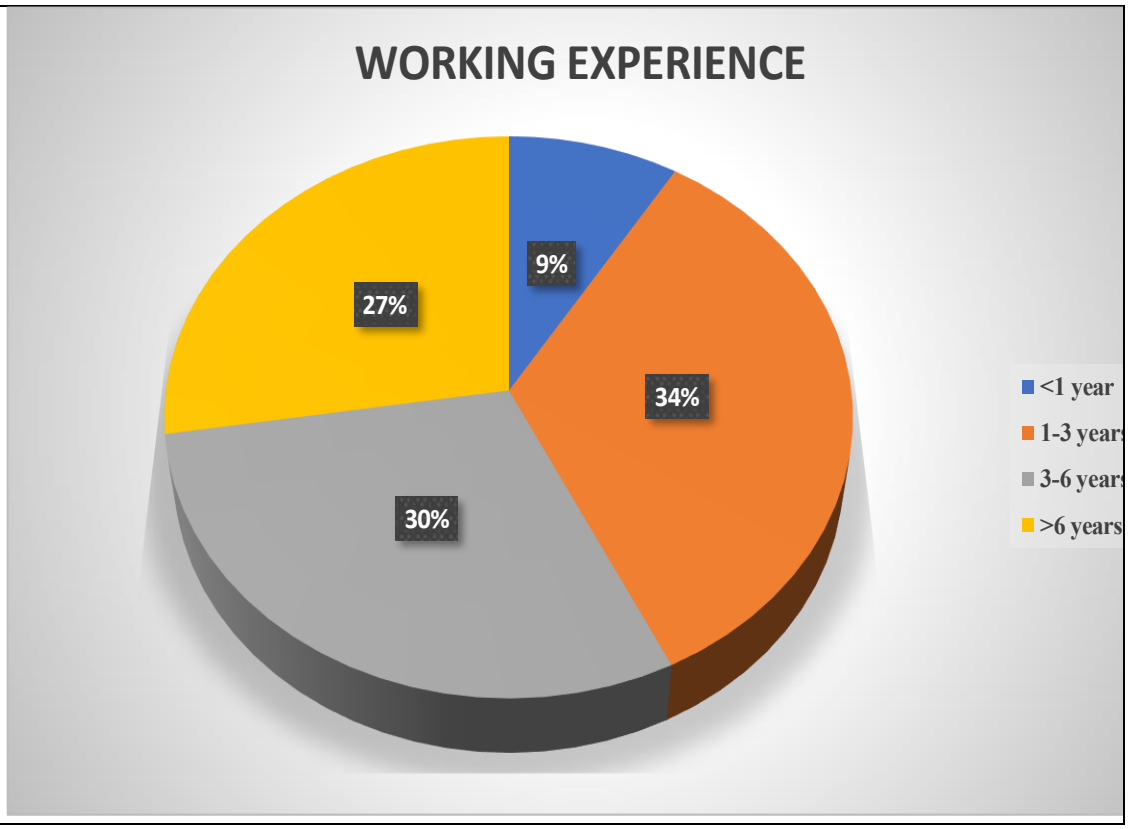
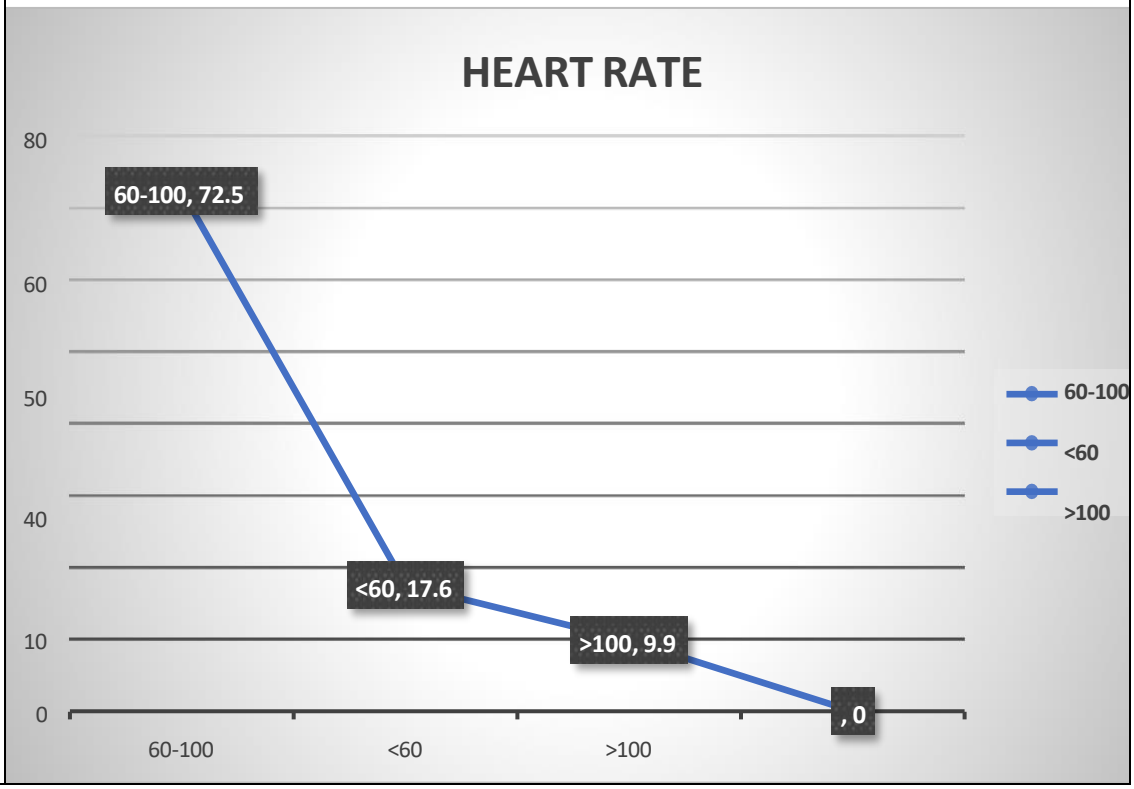


FIGURE 4.6 Distribution of Participants on the basis of Working Experience



SECTION-B ASSESSMENT OF HEALTH STATUS.

FIGURE 4.7 Distribution of Participants on the basis of Heart rate.



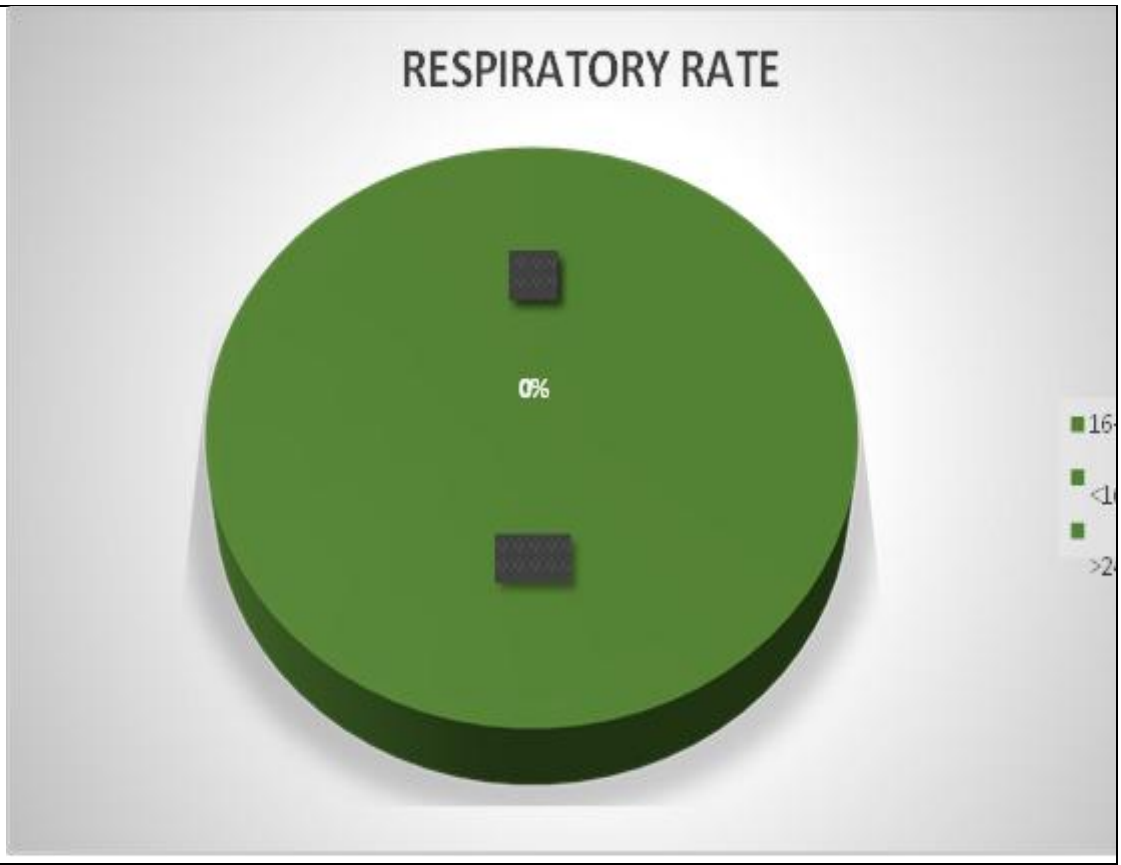


FIGURE 4.8 Distribution of Participants on the basis of Respiratory Rate.

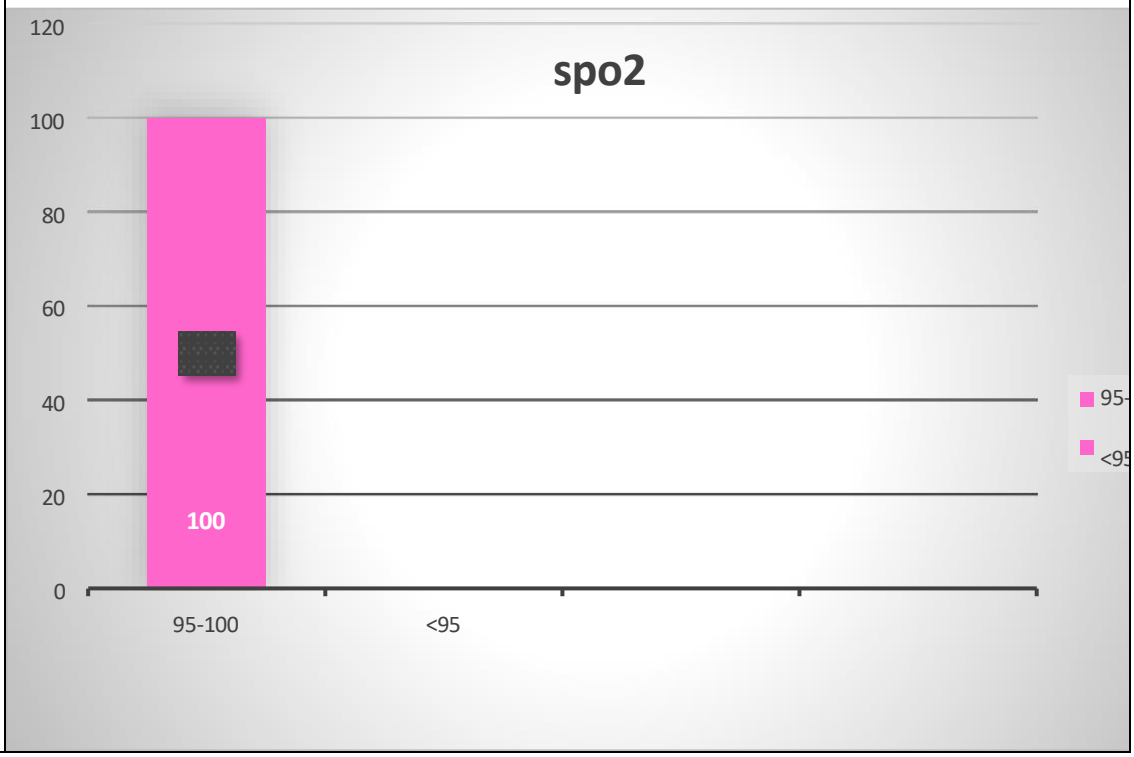


FIGURE 4.9 Distribution of Participants on the basis of SPO2.

FIGURE 4.10 Distribution of Participants on the basis of Temperature.

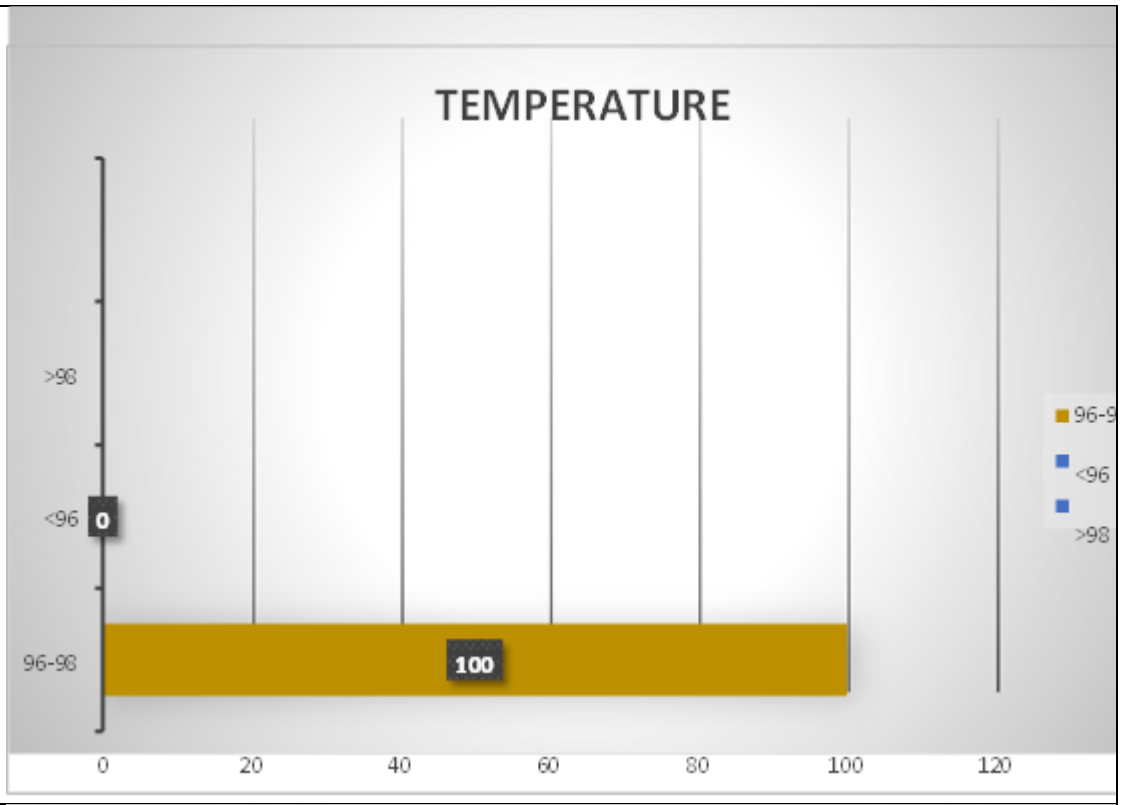


FIGURE 4.11 Distribution of Participants on the basis of Blood Pressure.

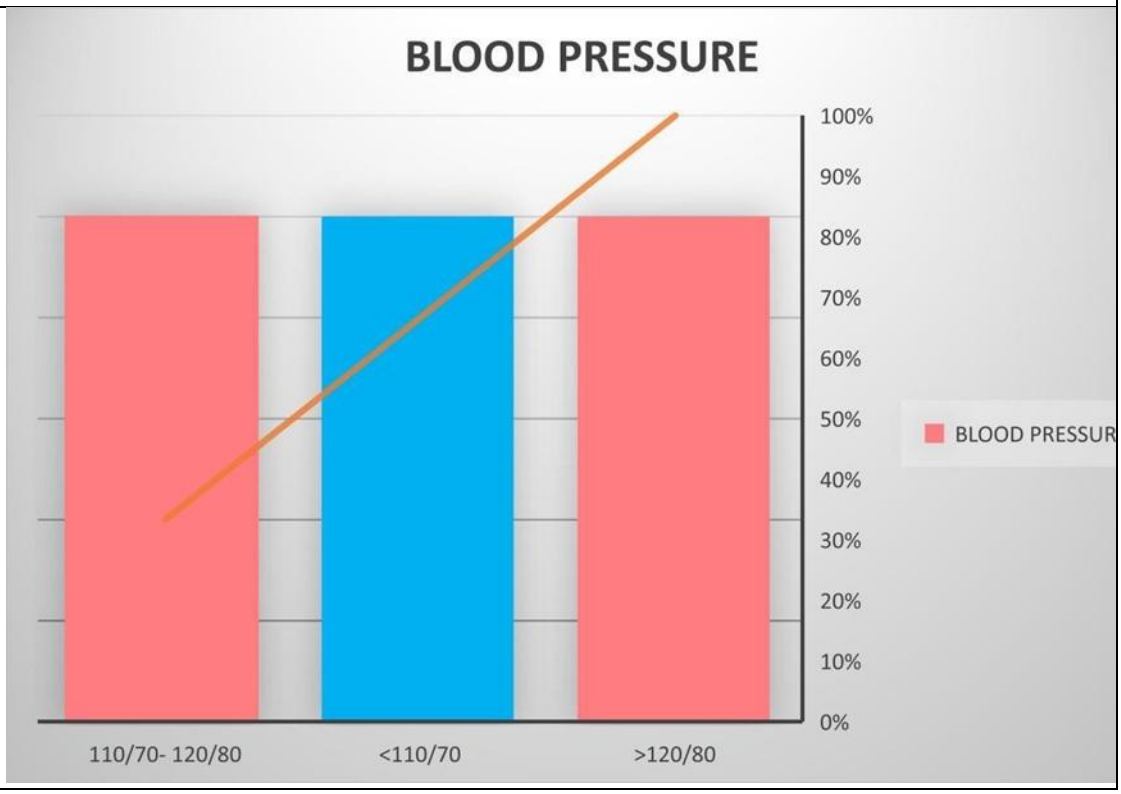
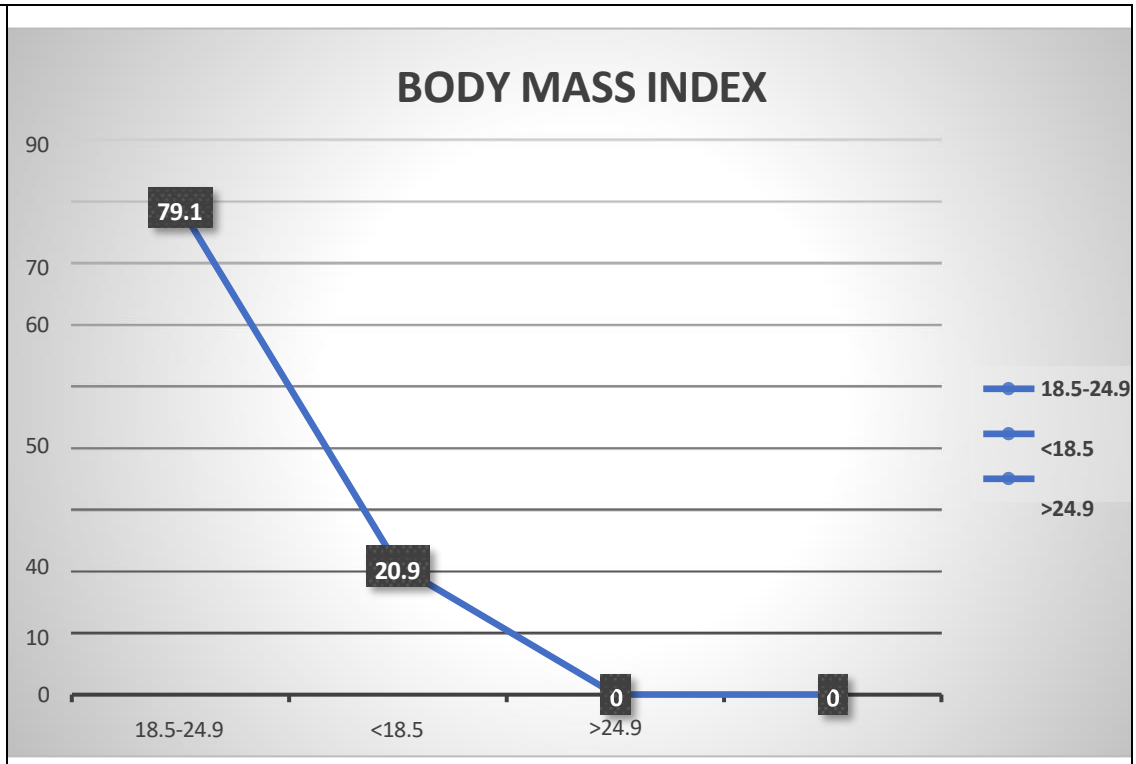


FIGURE 4.12 Distribution of Participants on the basis of Body Mass Index.



SECTION-C To find out the association between health status with selected socio- demographic variables. N=91

VARIABLES		HEALTH STATUS		CHI SQUARE	dF	P VALUE
		GOOD	AVG.			
Age (in years)	18-30	5	4	.833	2	0.659 - NS
	31-40	42	7			
	41-60	30	3			
	>60	0	0			
Gender	Male	73	14			
	Female	0	0			
Education	Formal education	29	6	4.444	2	1.08 - NS
	Primary education	45	6			
	Secondary education	3	2			
	Graduate or more	0	0			
Monthly income (in rupees)	5000-10000	0	2	0.833	2	0.659 - NS
	10001 -15000	39	4			
	15001-20000	21	6			
	More than 20000	17	2			
Previous Injury	Yes	74	11	0.000	1	1.000 - NS
	No	3	3			
Work Experience (in years)	Less than 1 year 1-3 years	8	0	7.222	3	0.065 - NS
	3-6 years	27	4			
	More than 6	23	4			

		19	6			
Phobia	Phobia of bees Phobia of closed space Phobia of height None	0 0 7 70	0 1 3 10	1.667	1	0.197 - NS
Heart rate	60-100	56	10	0.079		0.778 - NS
	<60	14	2			
	>100	7	2			
Respiratory rate	16-24 <16 >24	73 0 0	14 0 0			
Sp02	95-100	73	13	0.741	1	0.389 - NS
	<95	0	1			
Temperature	96-98	73	14			
	<96	0	0			
	>98	0	0			
Blood pressure	110/70- 120/80 <110/70 >120/80	55 10 12	4 5 5	1.806	2	0.405 - NS
Body mass Index	18.5-24.9	60	12	1.667	1	0.197 - NS

VIII. CONCLUSION

The present study was to assess the health status of constructional workers residing in Baru Sahib. The calculated sample size was 91. Convenient sampling technique was used by the researcher for the collection of samples. The checklist has total 32 items, our maximum score was 32 and minimum score was 0. The chart depicts out of 91 constructional workers, 60% of workers has good health status (24-32),40% of workers has average health status (12-23) and 0% workers has poor health status. The study results show that the level of significance of all socio demographic variables is $p>0.05$ and overall health status of constructional worker of Baru sahib is Good.

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