

# A STUDY TO ASSESS THE KNOWLEDGE AND PREVENTION REGARDING COVID-19 AMONG CONSTRUCTION WORKERS AT RAMA UNIVERSITY, KANPUR, UTTAR PRADESH.

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## ABSTRACT

Covid-19 disease caused by the new strain of corona virus now called severe acute respiratory syndrome.<sup>1</sup>The Objectives of the study were to assess the knowledge and its prevention regarding covid-19 among construction workers in Rama University and to associate the knowledge score with selected demographic variable of construction workers. The study was in Rama University campus, Mandhana, Kanpur. A simple descriptive design was adopted using purposive sampling technique. The study available population included construction workers in Rama University College's buildings, sample size taken as 100. Data was collected by structured interview scheduled. The study results revealed that a large number of construction workers (71%) had poor knowledge regarding covid-19 and its prevention. There was no association between demographic variable and knowledge scores. The finding revealed that majority of construction workers (71%) were having poor knowledge score ( $7.15 \pm 7.2$ ). The study concluded that there is an unmet need of awareness among construction workers in Rama University campus.

**Keywords:-** Assess, Corona virus, Covid-19, SARS CoV-2.

## INTRODUCTION

An infectious disease is a clinically evidenced illness resulting from the presence of pathogenic microbial agents including pathogenic virus, bacteria, fungi, protozoa, multi cellular parasites. Only in the past few hundred years have scientists began to have any sort of accurate ideas concerning the origin of such disease through the action of micro-organism and other parasites.<sup>1</sup>Respiratory tract infections are a major cause of morbidity among people worldwide particularly in developing countries. Due to acute respiratory tract infections is about 30-40% per 1,00,00 live births. Many respiratory infections are caused by corona viruses a family of viruses that are easily spread through respiratory droplets in the air and on surface. The novel corona strain Covid-19 is the cause of the current worldwide pandemic.<sup>2</sup>

In some patients moderate upper respiratory infections can progress into serious lower respiratory infections within a few weeks. Patients whose symptoms began with a mild cough may develop respiratory failure needing ventilator support to breathe. Viral respiratory infections typically spread when an infected person coughs or sneezes, spraying germs into the air that land on surface. If you breathe in the respiratory droplets or touch surfaces and then touch your face the virus can infect you. Covid-19 is particularly contagious one infected person on average spread it to 2.2 people. By comparison, people with the seasonal flu typically spread it to about 1.3 people<sup>3</sup>.

The novel corona virus also seems to infect the upper and lower respiratory tracts at a higher rate than other viruses which creates more potential for community spread respiratory syndrome corona virus. A novel corona virus

(nCoV) is a new strain that has not been identified in human previously. Once scientists determine exactly what corona virus it is, they give it a name (as in the case of COVID-19, the virus causing it is SARS-CoV-2)<sup>4</sup>.

Corona virus got their name from the way that they look under a microscope. The virus consists of a core of genetic material surrounded by an envelope with protein spikes. This gives it the appearance of a Crown. The word corona means "CROWN" in Latin. Corona viruses are zoonotic meaning that the viruses are transmitted between animals and humans. It has been determined that MERS-CoV was transmitted from dromedary camels to humans. The source of the SARS-CoV-2 (COVID-19) is yet to be determined, but investigations are ongoing to identify the zoonotic source to the outbreak. It was first identified in December 2019 in Wuhan, Hubei, China and resulted in an ongoing pandemic.<sup>5</sup>

The World Health Organization [WHO] has declared the corona virus disease 2019 (COVID-19) a pandemic. A global coordinated effort is needed to stop the further spread of virus. A pandemic is defined as "occurring over a wide geographical area and affecting an exceptionally high proportion of the population. On 31 December 2019, a cluster of cases of pneumonia of unknown cause, in the city of WUHAN, Hubei province in China, was reported to the World Health Organization. In January 2020, a previously unknown new virus was identified, subsequently named the 2019 novel corona virus, and sample obtained from cases and analysis of the virus genetics indicated that this was the cause of outbreak. This novel corona virus was named corona virus disease 2019 (COVID-19) by WHO in February 2020. The virus is referred to as SARS-CoV-2 and the associated disease is COVID-19.<sup>6</sup>

As of 21 September 2020, more than 31.1 million cases have been reported across 188 countries and territories with more than 962,000 deaths, more than 21.3 million people have recovered. The disease mainly spreads between people when they are in close proximity. It spreads very easily and sustainably through the air, primarily via small droplets or particles such as aerosols, produced after an infected person breathes, cough, sneezes, talks or sings. It may also be transmitted via contaminated surfaces, it can spread for up to two days prior to symptoms onset, and from people who are asymptomatic.<sup>7</sup>

The sudden outbreak of any disease defies the health care systems and economy of nations. COVID-19 is one of viral diseases which broke out in Wuhan city of China in 2020. COVID-19 outbreak intermittently prevailed all over the world. The researchers rightly felt that the construction workers in this area will not be adequately informed about covid-19 and its prevention. Keeping the above fact in mind, the researchers are making an attempt to assess the knowledge of construction workers regarding covid-19 and its prevention and based on their knowledge scores the questionnaire is prepared and provided to the participants of the study in Rama University Kanpur.

### **OBJECTIVES OF THE STUDY**

1. To assess the knowledge and its prevention regarding covid-19 among the construction workers in Rama University Kanpur.
2. To associate the knowledge and its prevention regarding covid-19 with the selected demographic variables of the construction workers.

### **HYPOTHESIS**

**H<sub>0</sub>**- There is no significant association between knowledge and its prevention regarding Covid-19 among the construction workers with their selected demographic variables.

**H<sub>1</sub>**. There is significant association between knowledge and its prevention regarding covid-19 among the construction workers with their selected demographic variables.

### **METHODOLOGY**

#### **Research design**

The research design is the overall plan for obtaining answer to the questions being studied and for handling some of the difficulties encountered during research process. The design used in this study was descriptive research design.

**Setting of the study**

Research setting in a specific place where information is gathered. This study was conducted in Rama University Mandhana, Kanpur.

This setting will be selected because construction workers, familiarity with the setting, availability of the samples and permission to conduct the study.

**VARIABLES****Research Variable**

Knowledge of the construction workers regarding covid-19 and its prevention is research variable.

**Demographic Variable**

The demographic variable is the factor that is not the part of the study but may affect the measurement of the study variable. In this study age, gender, education, area of residence, type of family, family income, religion, source of health information in construction workers were the demographic variables.

**POPULATION**

The target population for the present study comprises construction workers, working in Rama University, Kanpur. The accessible population for the present study comprises construction workers who were available at Rama Medical College building, Rama College of nursing building, Rama Engineering college building and Rama hospital building during the study period.

**SAMPLE**

Sample of the present study was construction workers of Rama University campus, Mandhana, Kanpur, who fulfilled the sampling criteria for the present study.

**SAMPLE SIZE**

The sample size of the present study was 100 construction workers, who worked in various building sites of the Rama University, Kanpur.

**SAMPLE TECHNIQUE**

In this study purposive sampling technique was used.

**Inclusion Criteria**

This study includes-

1. Construction workers who are between 20-55 years.
2. Construction workers who are available at the time of data collection.

**Exclusion Criteria**

1. Construction workers who are willing to participate in a study.
2. Construction workers who can understand Hindi.

**DEVELOPMENT AND DESCRIPTION OF THE TOOL USED IN THE STUDY**

SECTION-A:- It deals with demographic data such as age, gender, educational status, family monthly income, type of family, area of residence, religion, source of health information.

SECTION-B:- consist of 26 multiple choice question to assess the knowledge regarding covid-19 and its prevention.

SCORES- There were 26 questions each question had the option with one most appropriate answer. The maximum scores for the correct response to each item “one” and incorrect “zero”.

### **METHOD OF DATA COLLECTION**

The tool used to collect the data was demographic performa and structured interview schedule regarding covid-19 and its prevention among construction workers.

### **DATA COLLECTION PROCEDURE**

The data collection was scheduled in the month of October 2020. Before the data collection the investigator obtained prior permission from the supervisor of construction workers to conduct the study in Rama University. Written consent taken from the samples. An interview schedule was adopted to collect the data from the subjects. The purpose of the study was to assess the knowledge and its prevention regarding covid-19 among construction workers.

### **RESULT OF THE STUDY**

SECTION 1: Description of socio-demographic data

SECTION 2: Association of knowledge score with selected demographic variables.

SECTION 3: Assessment of the level of knowledge

### **SECTION 1: DESCRIPTION OF DEMOGRAPHIC VARIABLES OF CONSTRUCTION WORKERS**

This study finding disclosed that out of 100 construction workers most of them (36%) were from 36-45 years of age group and majority of construction workers (64%) were male, most of the construction workers (56%) had informal education. And (79%) were from rural area. Majority of construction workers (78%) were from a joint family, (52%) and earned <Rs.5000/- month as family income. The religion beliefs of most of the workers were Hinduism is (97%). Workers (50%) were belongs to mass media source of health information..

### **SECTION 2: ASSOCIATION OF KNOWLEDGE SCORE WITH SELECTED DEMOGRAPHIC VARIABLES**

**TABLE NO. 2. Knowledge scores and chi square value with their demographic variables and inference**

S.NO.	DEMOGRAPHIC VARIABLES	POOR	AVERAGE	GOOD	CHI SQUARE	DF	INFERENCE

1.	AGE-						12.59
	a) 20-25	23	24	0	0.15		N.S.
	b) 26-35	12	16	0			
	c) 36-45	07	10	0		6	At 0.05 level
	d) 46-55	03	05	0			
2.	GENDER-						5.99
	a) Male	47	26	0	0.07	2	N.S. at 0.05 level
	b) Female	12	15	0			
3.	EDUCATION-						12.59
	a) Informal		13	0			N.S. at 0.05 level
	b) Primary	03	12	0	0.00	6	
	c) Higher secondary	08	26	0			
	d) Degree & above	38	0	0			
		0					
4.	AREA OF RESIDENCE-						5.99
	a) Rural	08	28	0	0.00	2	N.S. at 0.05 level
	b) Urban	38	26	0			
5.	TYPE OF FAMILY						9.49
	a) Nuclear family		22	0			N.S. at 0.05 level
	b) Joint family	38	13	0	0.66	4	
	c) Extended family	27	0	0			
		0					
6.	FAMILY INCOME-						12.59
	a) <Rs. 5001/-	18	17	0			
	b) Rs.5001/-to Rs.						

	10,000/-	26	13	0	0.64	6	N.S. at 0.05 level
	c) Rs. 50001/- to Rs. 15000/-	12	04	0			
	d) Rs. 15001/- to above	0	0	0			
7.	RELIGION-						
	a) Hindu	69	28	0	0.15	6	12.59 N.S. at 0.05 level
	b) Muslim	01	02	0			
	c) Christian	0	0	0			
	d) Others	0	0	0			
8.	SOURCE OF HEALTH INFORMATION-						
	a) Newspaper & magazines	22	28	0			12.59 N.S. at 0.05 level
	b) Mass media	13	12	0	0.89	6	
	c) Health personals	04	06	0			
	d) Friends & relatives	07	08	0			

#### N.S. (NOT SIGNIFICANT) at 0.05 level

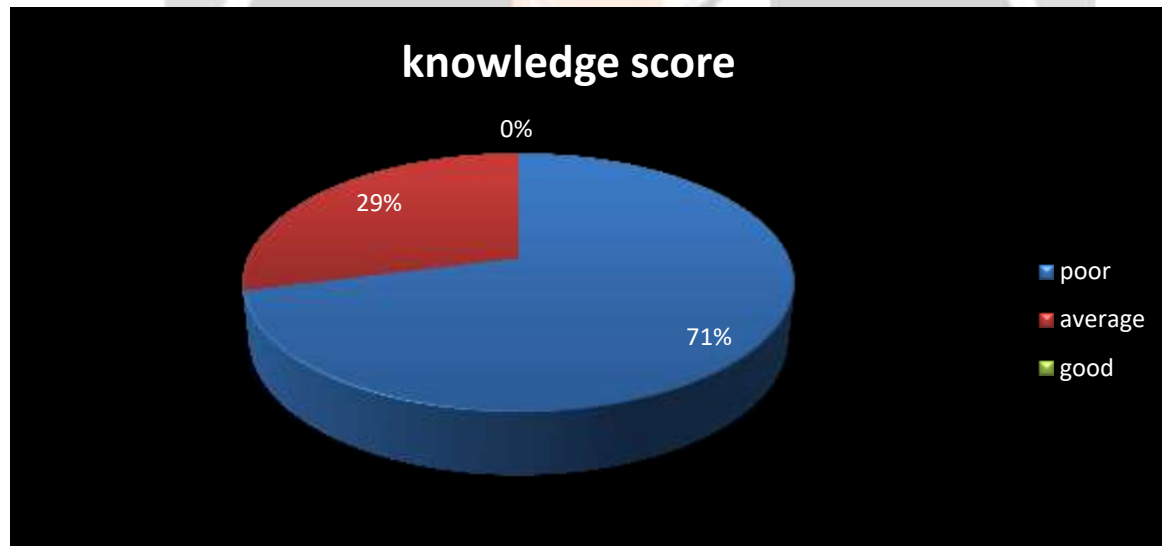
The above table shows that Association between scores and selected demographic variables of construction workers shows that there was no significant association between the knowledge scores and age, gender, education, area of residence, type of family, family income, religion and source of health information, at 0.05 level. **Hence  $H_1$  is rejected and Null hypothesis  $H_0$  was accepted.**

#### SECTION 3:- Assessment of level of knowledge.

**Table No. 3 Assessment of the level of knowledge.**

**N=100**

Level of knowledge	Score	frequency	percentage	Mean	Standard deviation
Poor	0-8	71	71%	7.15	7.18
Average	9-16	29	29%		
Good	17-26	0	0%		



**Fig no.9 Pie diagram showing percentage wise distribution of construction workers according to their level of knowledge.**

The above Pie diagram shows that majority of construction workers (71%) had poor knowledge between 0-8 score regarding Covid-19 and its prevention, and rest of them (29%) had average knowledge between 9-16 score. And no one (0%) had good knowledge between 17-26. Hence, interpreted that higher percentage of construction workers level of knowledge regarding covid-19 its prevention was poor 71% (71). The overall mean score and standard deviation of knowledge score regarding covid-19 and its prevention were mean 7.15 and standard deviation 7.18 respectively.

**CONCLUSION**

The overall knowledge score regarding covid-19 and its prevention shows that majority 71% of the sample had poor knowledge score and 29% of the sample had average knowledge score and no one had good knowledge score. The

overall mean score and standard deviation of knowledge score regarding covid-19 and its prevention were mean 7.15 and standard deviation 7.2 respectively. There was no associated between knowledge score with their selected demographic variables such as age, gender, education, area of residence, type of family, family monthly income, religion, source of health information.

### RECOMMENDATION

- A similar study can be replicated by increasing the size of the sample.
- A similar study can be done using another data collection tool.
- A similar study can be done with experimental design.
- A similar study can be done in rural and urban population.

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