



# A STUDY TO ASSESS THE KNOWLEDGE REGARDING PREVENTIVE MEASURES OF COVID-19 AMONG NURSING STUDENTS OF GAUTAM COLLEGE OF NURSING HAMIRPUR.

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## ABSTRACT

Corona Viruses (CoV) are a broad family of viruses that are known to cause serious and sometimes fatal pulmonary disease such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). COVID-19 infection is highly contagious and has affected a large population all across globe. To promote interventional progress amid the Corona virus Outbreak, there is an urgent need for assessment of population's knowledge and practice toward COVID-19. A non-experimental descriptive study was conducted to assess the level of knowledge and practices regarding COVID-19 among Nursing students in Gautam College of Nursing Hamirpur Himachal Pradesh. Data was collected from 200 students that were selected by using non-probability convenient sampling technique. A written permission was taken from the Principal of Gautam College of Nursing Hamirpur. Written consent was taken from the subjects prior to data collection. Confidentiality was maintained while collecting the data. Based on the objective-I of the study, it was found that, Knowledge level that i.e. 22% nursing students had good level of knowledge, 68.5% of nursing students that had average knowledge followed by 9.5% that had below average knowledge. The study concluded that majority of the students have good score regarding the level of knowledge regarding preventive measures of COVID-19.

## Introduction & Background of the Study

Corona viruses (CoV) are a broad family of viruses that are known to cause serious and sometimes fatal pulmonary diseases such as severe acute respiratory syndrome (SARS) and Middle East Respiratory Syndrome (MERS). In 2002 -03 SARS- CoV first identified as a pneumonia in Guangdong, China, which later turned into life threatening respiratory failure. Since many cases of Novel Corona Virus diseases 2019 (COVID-19) first appeared in Wuhan City, China in December 2019, the virus has infected millions worldwide. On January

30,2020 the World Health Organization (WHO) declared that the outbreak of COVID-19 constituted a public health emergency of international concern (PHEIC) calling for countries to take urgent and aggressive action against the spread of the virus. There are more than 42.4Cr. confirmed cases globally. The incubation period of COVID-19 is 2-14 days and the initial symptoms would appear as fever, cough, shortness of breath, trouble breathing, pain or pressure in the chest, fatigue, myalgia or arthralgia, confusion, bluish lips or face.<sup>[2]</sup> On 11 March 2020, the rapid increase in the number of cases outside China led the (WHO) Director-General to announce that the outbreak could be characterized as a pandemic.<sup>[3]</sup>

India reported the first confirmed case of the Corona Virus infection on 30 January 2020 in the state Kerala. First death due to Corona Virus in India was reported in Karnataka on 12 March. India's Prime Minister Narendra Modi has appealed to Indians to avoid mass gathering. The success of the measures implemented is based on the people adherence to prevention controls, which is largely influenced by knowledge, perception and preventive behavior against COVID-19. In crisis, like COVID-19 the study, knowledge and information received by the student nurses about COVID-19 may affect their attitudes to it, and attitude may affect their behavior and action. However, the negative perception of COVID-19 information and misinformation can lead to poor behavior, practice and knowledge. Thus, the most essential method to stop the spread of COVID-19 pandemic is to develop and adopt appropriate preventive behavior, which can be achieved by becoming well-versed in this disease.<sup>[6]</sup>

Now days vaccine or an antiviral treatment has been launched into the market for the prevention on management of COVID-19. India begins its vaccination programme on 16 January 2021. The percentage of population fully vaccinated in India is approximately 56.0%.<sup>[7]</sup> Health care workers are at greater risk of contracting infection and of transmitting them to others. Our main objective is to estimate the knowledge of nursing students towards air borne and droplet precautions during the COVID-19 pandemic. This research will help in detecting health care student's educational deficit in the field of infection control which will help in the development of medical curriculum.

## Statement of the Problem

A descriptive study to assess the level of knowledge regarding preventive measures of COVID-19 among nursing students of Gautam College of Nursing Hamirpur.

## Objectives of the Study

1. To assess the level of knowledge regarding preventive measures of COVID-19 among nursing students of Gautam College of Nursing.
3. To find the association between knowledge and practice with selected socio- demographic variables.

## Assumption

The nursing students may have knowledge about COVID-19 and its preventive measures.

## Research methodology

A quantitative research approach is used for the present study. A non-experimental descriptive research design was used for this study. The present study is conducted at Gautam College of Nursing Hamirpur. The rationale for selecting this setting for the study was the researcher's familiarity with the setting, convenience feasibility, authorities in getting permission and economic consideration. Total sample size was 200 nursing Students from Gautam college of Nursing Hamirpur Himachal Pradesh.

## Description of study tool

The tool consist of three sections:-

### Section-A:- Socio-demographic Profile Sheet.

Developed for the present study to collect samples socio-demographic characteristics, which consist of 11 items that include age, gender, marital status, course in which studying, place of residence, source of information, attended any Training programme related to COVID-19.

### Section-B: Questionnaire related to covid-19 preventive measures

It include 25 items to identify the level of the knowledge of preventive measures of COVID-19 among nursing students. Each item is scored with right (1) and wrong (0). The maximum score is 17-25 whereas the minimum score is 1-8.

### Criterion Measures:

RESULT	SCORE
Poor	1-8
Average	9-16
Good	17-25

## Section:-I

Table-1.1:Frequency and percentage distribution of subjects according to socio-demographic variables

N=200

S.NO.	Socio-demographic variables	Frequency (f)	Percentage ( % )
1.	<b>Age(in years)</b>		
	18-20	120	60%
	21-23	69	34.5%
	24-26	8	4%
	27-29	3	1.5%
2.	<b>Gender</b>		
	Male	0	0%
	Female	200	100%
	Others	0	0%
3.	<b>Marital Status</b>		
	Un-Married	181	90.5%
	Married	18	9%
	Divorced	1	0.5%
4.	<b>Course in which studying</b>		
	B.sc Nursing	128	64%
	Post Basic B.sc Nursing	24	12%
	GNM	48	24%
5.	<b>Place of residence</b>		
	Rural	111	55.5%
	Urban	89	44.5%
6.	<b>Source of information</b>		
	Television	9	4.5%
	Internet	96	48%
	Mass-Media	26	13%
	Teachers &Friends	69	34.5%
7	<b>Attended any Training programme</b>		

	Related to COVID-19		
	Yes	32	16%
	No	168	84%

**Objective- 2 : To assess the level of knowledge regarding preventive measures of COVID-19 among nursing students in Gautam College of Nursing Hamirpur.**

Table No. 1.2 Table Showing Level of Knowledge Scores

CRITERIA MEASURES OF KNOWLEDGE SCORE		
Score	Frequency	Percentage
Poor (1-8)	19	9.5%
Average(9-16)	137	68.5%
Good(17-25)	44	22%

Maximum Score =25

Minimum score=0

The above table showed that level of knowledge regarding preventive measures of COVID-19 i.e., 68.5% of nursing students had average knowledge, 22% had good knowledge and 9.5% nursing students had poor knowledge.

**Objective - 3 To find the association between level of knowledge and socio-demographic variables.**

Table 1.3 : Association between level of knowledge and socio-demographic variables.

Variables		Scores			Chi-square	Df	Table value	P-Value
		Poor	Average	Good				
Age	18-20yrs.	16	96	88	86.46	54	72.15	0.0038*
	21-23yrs.	1	36	32				
	24-26yrs.	1	5	2				
	27-29yrs.	0	1	2				
Marital status	Unmarried	17	28	136	2.09	36	50.99	0.002*
	Married	1	13	4				
	Divorced	0	1	0				
Course	B.sc Nursing	13	87	13	53.29	36	50.99	0.032 <sup>NS</sup>
	Post basic B.sc nursing	0	18	7				

	GNM	5	25	32				
<b>Residence</b>	Rural	12	74	25	21.21	36	50.99	0.97 <sup>NS</sup>
	Urban	6	70	13				
<b>Source of information</b>	Television	0	8	1	58.05	54	72.15	0.328 <sup>NS</sup>
	Internet	10	64	22				
	Mass Media	3	16	7				
	Teachers and Friends	4	59	6				
<b>Training programme</b>	Yes	5	24	4	24.1	18	28.86	0.15 <sup>NS</sup>
	No	13	49	105				

\*significant at  $p < 0.05$

This table shows the association between the level of knowledge regarding preventive measures of COVID-19 among nursing students and socio-demographic variables which was calculated by using chi square. The association between age and level of knowledge regarding preventive measures of COVID-19 shows  $\chi^2=86.464$ , ( $p > 0.0038^*$ ) significance. There is association between age and level of knowledge regarding preventive measures of COVID-19 among nursing students. Hence assumption is accepted.

The association between Marital Status and level of knowledge regarding preventive measures of COVID-19 shows  $\chi^2=2.09$ , ( $p > 0.002^*$ ) significance. There is association between the marital status and level of knowledge regarding preventive measures of COVID-19 among nursing students. Hence assumption is accepted.

The association between the course and level of knowledge regarding the preventive measures of COVID-19 among nursing students shows  $\chi^2=53.295$ , ( $p > 0.032$ ) non-significant. There is no association between course and level of knowledge regarding preventive measures of COVID-19 among nursing students. Hence assumption is rejected.

The association between the residence and level of knowledge regarding preventive measures of COVID-19 among nursing students shows  $\chi^2=21.218$ , ( $p > 0.97$ ) non-significant. There is no association between the residence and level of knowledge and preventive measures of COVID-19 among nursing students. Hence assumption is rejected.

The association between the source of information and level of knowledge regarding preventive measures of COVID-19 among nursing students shows  $\chi^2=58.054$ , ( $p > 0.328$ ) non-significant. There is no association between source of information and level of knowledge regarding the preventive measures of COVID-19 among nursing students. Hence assumption is rejected.

The association between the training programme attended and level of knowledge regarding preventive measures of COVID-19 among nursing students shows  $\chi^2=24.103$ , ( $p>0.15$ ) non- significant. There is no association between training programme attended and level of knowledge regarding preventive measures of COVID-19 among nursing students. Hence assumption is rejected.

**DISCUSSION:-** In the study findings chi square ( $\chi^2$ ) value showed that there was statistically non- significant association between knowledge score and practice score with socio-demographic variables i.e., age and source of information. The above objectives and findings are supported by another study conducted a cross-sectional study to assess the knowledge, attitude and practice of nursing students toward COVID -19. The result showed that, 54.67% of nursing students were in the age group of 20-25 years and majority 62% were females. 56.67% of nursing students were studying in basic B.Sc. nursing course. 81.33% of nursing students had previous knowledge regarding COVID -19. Most of the nursing students 79.33% gained information from social media and 15.33% gained from family and friends. Mean knowledge score of nursing students towards COVID-19 was 11.74. Mean attitude and practices score of nursing students towards COVID-19 was 3.22 and 6.82 respectively. There was no significant association found between the findings with selected demographic variable among nursing students.

**CONCLUSION:-** The study depicts that majority of the students have 68.5% average knowledge, 22% had good knowledge and 9.5% nursing students had poor knowledge.

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