

CORONA HEALTH-CARE WARRIORS' KNOWLEDGE, ATTITUDE AND PRACTICES OF THE EMERGING COVID19 PANDEMIC - A DESCRIPTIVE STUDY

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Abstract:

From its first incidence in Wuhan, China, COVID-19 has become a global health emergency. The global health care system is facing challenges due to an increase in cases and fatalities. This study intends to evaluate health workers' understanding, attitudes, and practices about the COVID-19 disease, which is experiencing a significant outbreak in India. The degree of schooling is related to the health professionals' adequate knowledge ratings. The type of healthcare facility and the position held within a healthcare facility are important indicators of knowledge sufficiency.

Keywords: Attitude, coronavirus, COVID- 19, health personnel, knowledge, practice

1. Introduction

Corona virus is an infectious virus originating from Wuhan, China. The virus quickly spread around the world as a global pandemic and caused a public health emergency. Pandemics lead to increased levels of stress, and fear and anxiety are common responses to any stressful situation. A country's response largely depends on the administration, the front line warriors and their knowledge of how to address and avert the situation. This study was conducted to assess the knowledge of front line warriors of COVID19 to see how prepared they are in their perception of this deadly disease that has taken the world by surprise.

Coronavirus disease (COVID-19) is a single-stranded enveloped ribonucleic acid virus responsible for causing a flu-like syndrome. The coronavirus outbreak came to light on



December 31, 2019, when China reported a cluster of 40 cases to the World Health Organization. pneumonia of unknown etiology in Wuhan City, Hubei Province, China. Some of the patients were vendors and dealers at the Huanan Seafood Market. Subsequently, the disease spread to more provinces in China and to the rest of the world. Looking at the area of countries to which this epidemic has spread, WHO declared a public health emergency of international concern on January 30, 2020, and on March 11, WHO declared COVID -19 - a pandemic. Because by then about 114 countries were affected

The global coronavirus outbreak has reached more than 40 million cases worldwide with more than 2.76 million deaths as of May 9, 2020.

The highest number of coronavirus cases is reported in the United States, with a total of over 13,000 cases and 78,000 deaths. The second highest number of cases is reported in Spain, with more than 2.6 million cases and more than 26,000 deaths. The number of coronavirus cases in India is increasing exponentially with a total of 59,765 cases and 1,986 deaths as of May 9, 2020.

Despite timely responses by institutions; declaring a state of emergency on January 31, 2020; imposing limits on public gatherings related to schools, conferences and sporting events; and restrictions on health care in public places, the number of new cases continues to increase. Every region of the country faces similar and significant direct and indirect challenges to the health care system.

With the increase in the number of confirmed cases and critical cases, there is a demand for health workers. Various organizations have created guidelines for the practice and protection of healthcare workers in the midst of this crisis. Healthcare professionals are expected to know about the emerging pandemic, stay abreast of the latest guidelines to be able to provide safe care, and be able to protect ourselves by following established government and institutional protocols. .

Knowledge of the disease can influence the attitudes and practices of HCWs, and incorrect attitudes and practices directly increase the risk of infection. Thus, it shows that there is a need to assess the level of knowledge, attitudes and perceptions of HCWs. Therefore, the researchers decided to conduct an online study among nursing professionals and paramedical staff across India to assess the knowledge of front line warriors.



2. Method of data collection

Data assortment plans aimed at numerical studies should be designed to provide meaningful, accurate, unbiased, reliable, and valid data to response the research queries. This is an interesting box, classically requiring significant period and energy to realize. The online survey was conducted from April 2020 to May 2020. Due to social distancing norms and fashion lockdown, the researchers chose to collect data via WhatsApp and email. Survey questionnaire consisting of 2 sections socio-demographic data, knowledge questionnaire was created on google forms. Socio demographic data consisted of 10 questions that included age, gender, marital status, education, employment sector, occupation, and years of service. In the present study, based on the objectives the self-structured scales will be developed and used to collect data. After the tool was validated and validated by an expert panel, a Google questionnaire was created and distributed via WhatsApp and email to various participants, which included nurses from government and private institutions, medical personnel including ambulance drivers. A total of 500 samples were obtained. Incidence and fraction delivery was rummage-sale to examine demographic Variables. Nasty and SD was rummage-sale to evaluate the KAP of Treatment Officers. Investigators who amass quantitative statistics characteristically progress finished a sequence of stages in the investigation and understanding of statistics. Academic wills layout a statistics analysis proposal in fee to guide the development of exploration study.

The tools will be paper and pencil type which will be developed and prepared by undertaking following steps:

- Planning for the required tools.
- A review of literature.
- Opinion of the experts.
- Requirements of the tools according to the objectives of the study.
- Preparation of items as required for the study.
- Establishing validity and reliability of the tools regarding the clarity and appropriateness of the items.

3. Statistical analysis

Data were analyzed using both descriptive statistics and inferential statistics. A knowledge score was calculated and the association of the knowledge score with the socio demographic variable was calculated. Frequency distribution and bar diagrams were used to perform

descriptive analysis. ANOVA and Man Whitney and correlation coefficient tests were performed to determine the association between socio demographic variables with knowledge scores. As data is normally distributed and homogenous ANOVA was used to find out the association between KL, attitude and practice scores with selected demographic and baseline variables.

4. Result

The results, interpretations and generalizations that an investigator generates from a study become the most important purpose of the research. According to Kerlinger data analysis is “categorizing, ordering, analyzing and summarization of the data to obtain answers to the research questions. The purpose of analysis is to deal with the data in an intelligible and interpretable form so that the relation of research problem can be studied and hypothesis can be tested”. The study was conducted during the largest outbreak of COVID 19 in Maharashtra in the month of April 2020 to May 2020 using a digital platform. From the total number of samples collected, it was seen that the majority of HCWs, 35.2% were aged 20-29 years, followed by 33.2% aged between 30-39 and 21.5% aged between 40-45. Of the data collected, 83.8% of HCWs were female and the remaining 16.2% were male. Defense paramedics constituted 73.8% of the respondents, approximately 54.1% were graduates as seen in Table I.

Table I: Distribution of socio-demographic variables

SNo	Variable	Parameters	No	Percentage
1	Age(Yrs)	21–30	235	39.2
		31–40	144	24.0
		41–50	221	36.8
2	Gender	Male	0	0
		Female	600	100
3	Marital status	Married	292	48.7
		Unmarried	302	50.3
		Separated	6	1.0
		Divorce		
		Widow/Widower	0	0



4	Education	Higher secondary	580	96.7
		Graduate	20	3.3
		Post graduate	0	0
5	Professional qualification	GNM	328	54.7
		BSc Nursing	228	38.0
		PC BSc Nursing	12	2.0
		MSc Nursing & Above	32	5.3

SNo	Variable	Parameters	No	Percentage
6	Bed strength of the hospital	<100	0	0
		101–250	0	0
		251–500	0	0
		>500	600	100
7	Sector of employment	Private Hospital	300	50
		Government Hospital	300	50
8	Years of experience	3–8	324	54.0
		9–14	177	29.5
		15–20	99	16.5
9	Source of information regarding epidemic	Print material	600	100
		Continuous Nursing education	600	100
		Electronic media	600	100
		Informal communication	600	100
10	H/O previous experience	Yes	241	40.2
		No	359	59.8

Of all the respondents surveyed it was shown in Table 1, that a majority of the HCWs 84.54% had good knowledge regarding the clinical characteristics of COVID19. Our study revealed that 100% participants knew that it is a viral infection and 48.9% were aware of the full form of COVID-19. 42.1% were aware about the incubation period and 90.6% had information about recommended quarantine period. 78.1% knew who can be called as confirmed case. 57.5% of participants were aware of correct order of donning of PPE however knowledge about order of doffing of PPE was found insufficient. Only 23.69% could give correct order of doffing of PPE which is matter of concern and area which requires improvement. Knowledge about recommended minimum distance between two beds was found 39.1% and 36.5% of participants responded correctly about the prevention of this disease.

Table 2: The distribution of educational qualification of Nursing officers (N = 600)

Variables	Parameters	No	Percentage
Education	Higher secondary	580	96.7
	Graduate	20	3.3
	Post graduate	0	0

The table 2 and fig 1 shows that 97% of participants completed Higher Secondary School before joining Nursing. Three percentage of participants had and additional graduation other than Nursing education.

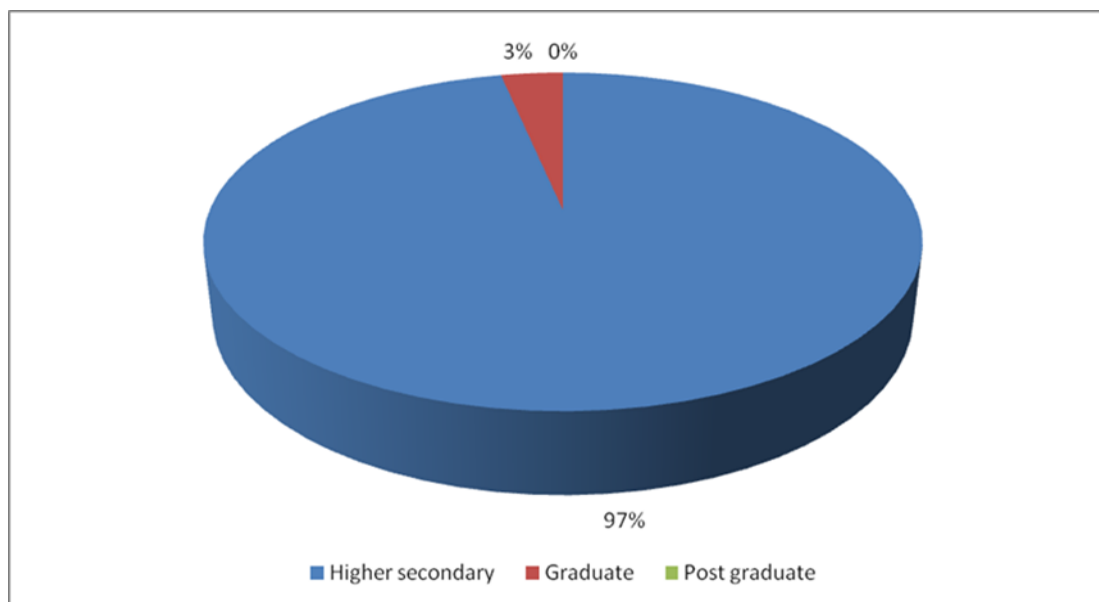


Fig. 2 : Pie Diagram showing the distribution of educational qualification nursing officers

Table 3: Frequency and percentage distribution of KL score of Nursing Officers regarding prevention and management of an epidemic (N = 600)

SNo	KL score	No of cases	Percentage
1	0–17(Poor)	0	0
2	18–34(Average)	7	1.2
3	35–50(Good)	593	98.8
	Total	600	100

98.8% had good KL regarding prevention and management of an epidemic i.e. correctly answered more than 35 questions in a structured closed ended questionnaire of 50. Only 1.2 % had average KL scored less than 34 score and no participant had poor KL.

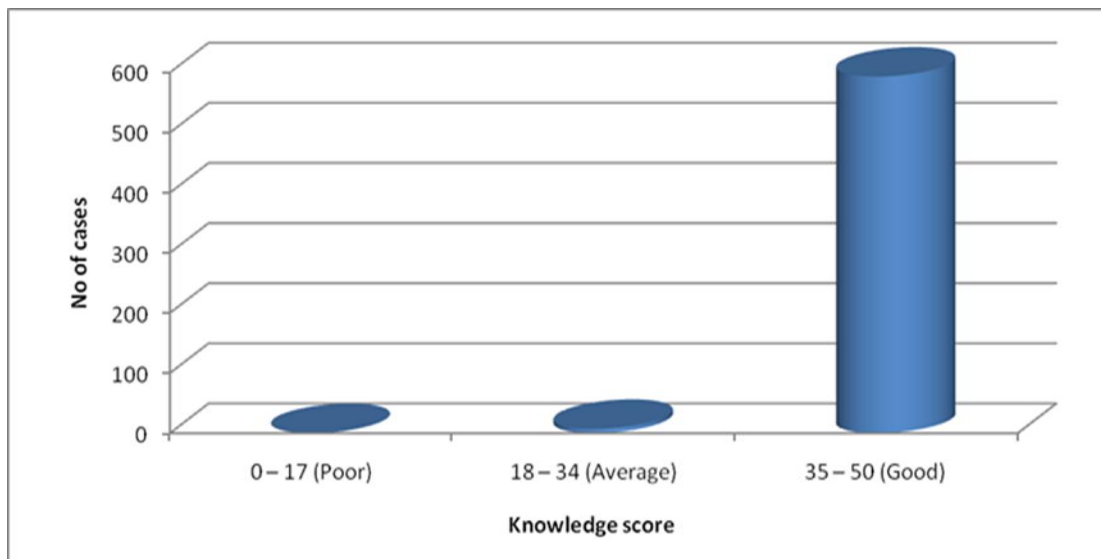


Fig 2: Cylindrical bar diagram showing frequency and percentage distribution of KL score of Nursing Officers regarding prevention and management of an epidemic (N = 600)

Table 4: Frequency and percentage distribution of practice score of Nursing Officers regarding prevention and management of an epidemic (N = 600)

Practice score	No of cases	Percentage
0–17(Poor)	0	0
18–34(Average)	0	0
35–50(Good)	600	100
Total	600	100

All nursing officers reported good practice i.e. scored more than 35 in a self-reported rating scale with maximum score of 50 and minimum score of 0.

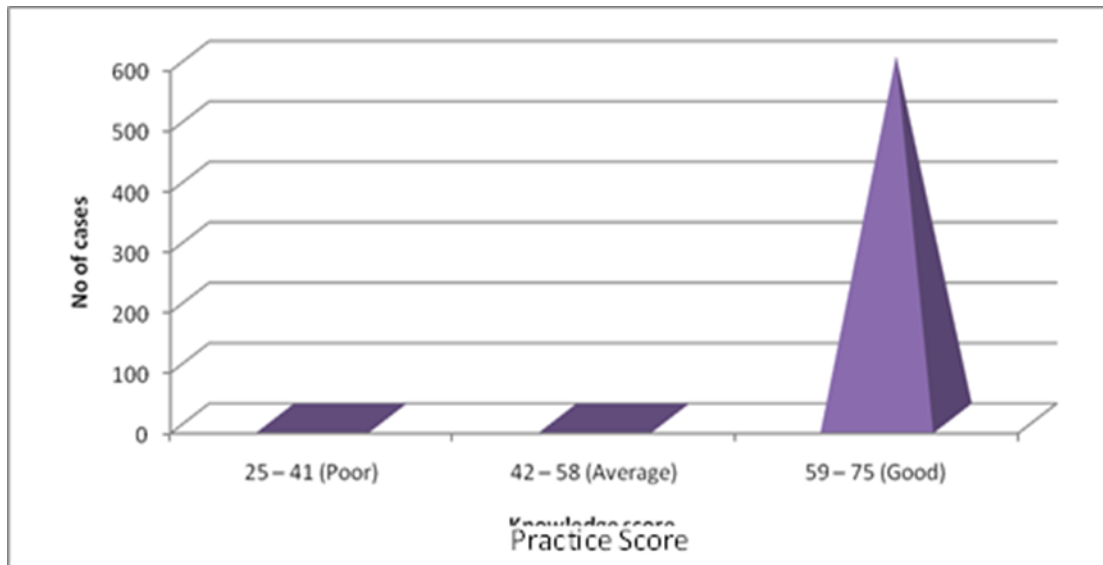


Fig 3: Cone diagram showing frequency and percentage distribution of practice score of Nursing Officers regarding prevention and management of an epidemic (N = 600)

Table 5: Comparison of KL score with age of nursing officer

Age(Yrs.)	N	KLscore		FValue	PValue
		Mean	SD		
21-30	235	40.58	2.014	0.27	0.77
31-40	144	40.69	1.923		
41-50	221	40.71	1.888		

ANOVA F value is 0.27 at p 0.77. Hence there is no statistically between KL score and age.

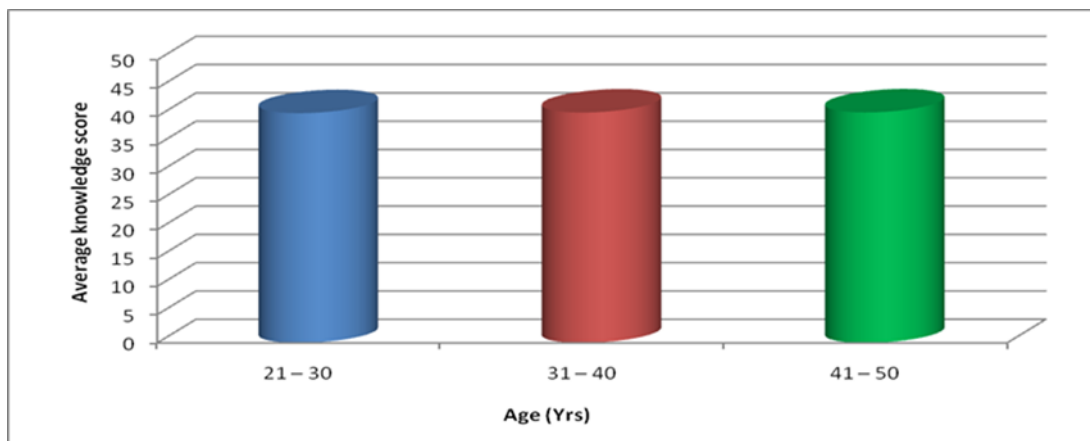


Fig. 4: Cylindrical bar diagram showing comparison of KL score with age of nursing officers

5. Conclusion:

Data analysis has shown an association of age of participants with practice score at LOS



0.015. This study has not given any evidence to prove an association of practice with marital status, basic educational qualification, professional qualification, sector of employment, years of experience and previous experience in management of an epidemic.

The study findings are discussed on the basis of objectives and hypothesis formulated. And also major findings are discussed with reference to the results of current research findings.

Although only a few studies are available in this area to date, it is clear that the COVID-19 pandemic has led to a vigorous and multifaceted response from various researchers around the world. Adequate knowledge will lead to the promotion of the right skills and these are the weapons for front line warriors such as nurses and paramedics to fight against COVID-19.

In our study, we found that although the knowledge score is good but not excellent, the majority of participants (>90%) strongly agreed that they are proud to be called frontline warriors, are ready to self-monitor, isolate, follow standard precautions and protocols and update themselves with the latest information and guidelines on the prevention and control of COVID-19, a finding in contrast to the study by **Bhagavtala A 2020**. 54% participants strongly agreed with concerns about the risk of infection to themselves and loved ones. Most of the participants expressed willingness to use PPE and standard precautions, even if they are uncomfortable and difficult to use. 49% of participants strongly agreed and 48% agreed that they were confident in donning and doffing PPE. 78% of respondents strongly agreed that regular training is useful to reinforce steps in donning and doffing.

A study conducted in China among healthcare workers by **MingleZhou (2020)** also has findings consistent with our study, where they found that 89% demonstrated sufficient knowledge about COVID-19. Approximately 85% of HCWs surveyed were afraid of contagion at work. This investigation found that knowledge directly influences attitudes. The more knowledge HCWs had, the more confident they were in defeating the virus (OR = 1.411, 95% confidence interval [CI]

These study results are also consistent with the study by **Ronald Olum I (2020)** among health workers in Uganda regarding the level of knowledge where 80% were found to have adequate knowledge. In the famous press, there is the worry that the feeling of dread toward the virus is postponing adolescent vaccinations, and forestalling people with persistent ailments, as well as serious clinical occasions, from getting care.

What's more, on March 18, 2020, the Centers for Medicare and Medicaid Services (CMS) suggested that all elective and non-pressing medical procedures and strategies ought to be



deferred during the C-19 PM to protect assets and forestall the spread of illness. This activity has obscure ramifications for well-being results.

It is too soon to quantify the impacts of PM-actuated decreases in well-being administrations use on ensuing well-being and monetary results. The initial step is to assess the sizes of these impacts.

In conclusion, it can be seen that although not everything is known about this deadly pandemic, most of the warriors on the front lines are well versed and have acquired a good knowledge about the disease of COVID19, thus increasing our confidence and preparedness to face the outbreak of the virus. Health workers are continuously updating themselves on established protocols, social distancing and emphasizing the importance of hygiene and respiratory isolation by positively orienting themselves to solving the emerging pandemic situation. The subsequent loss of results from these interesting side and supply-side shocks is halfway because of the actual sickness and would happen even without social distancing. The bigger consequences for yield, in any case, are probably going to be expected not to the actual infection yet rather to social separation, one of the main apparatuses we have available to us to save lives.

One significant part of the approaching C-19 downturn is that it might influence areas of the economy that generally have been to some degree protected from the business cycle. Specifically, the medical services area in the US has been generally protected from downturns since, individuals become ill during both great and awful times, "1 and because HC coverage brings down the cost of clinical consideration, safeguarding admittance to want somewhat for guaranteed patients during financial slumps (Cutler, 2020).

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