

Knowledge towards COVID 19 among the Nursing Students during the Rapid Rise Period of COVID 19 Outbreaks: A Quick Online Cross-Sectional Survey in Navi Mumbai

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Abstract

Background: The corona virus disease 2019 (COVID-19) emerged in Wuhan, China at the end of 2019. Since then, it has spread to 200 countries and has been declared a global pandemic by the World Health Organization (WHO). To date, there are more than 2.3 million positive COVID-19 cases recorded with at least 150,000 deaths globally. **Aim:** The overall aim of the study is to determine the knowledge of Covid -19 among nursing students in selected nursing colleges of Navi Mumbai and to assess the association between knowledge score and selected demographic variables among nursing students in selected nursing colleges of Navi Mumbai. **Method:** Descriptive survey approach with a typical descriptive design was adopted in the present study. Convenience sampling technique was used for the selection of the total 40 online samples. A self develop online knowledge questionnaire was used to assess the knowledge of Covid -19 among nursing students by using Google forms. Reliability of the knowledge questionnaire was checked by using split-half method and Spearman brown coefficient and the $r = 0.9489$. Prior permission from the concern authority of selected colleges was taken. The main study was conducted in Bharati Vidyapeeth Deemed to be University College of Nursing. After data collection the self-instruction module on information on Covid -19 was distributed to nursing students via mails to improve their knowledge. **Result:** Result reveals that 37.5% of the nursing students had moderate level of knowledge and 62.5% had adequate level of knowledge. With the help of self instructional module students will improve the knowledge. Samples consist of 15% males and 85% females. 17.5% were in 17-18yrs, 47.5% were in 18-19yrs and 30% were in 19-20yrs, 5% were in above 20yrs. Regarding background knowledge of COVID 19, 75% of the samples has knowledge on COVID. 75% of samples got knowledge from news channel, 10% samples got knowledge from doctors and 10% samples got knowledge from other sources. **Conclusion:** The overall findings of the study revealed that majority nursing students had moderate and inadequate knowledge regarding COVID-19. Hence, it is concluded that further improvement of knowledge on COVID-19 is needed.

Keywords: Knowledge; Assess; Covid-19; Self-Instruction Module.

Introduction

Coronavirus disease 2019 (COVID-19) is an emerging public health problem threatening the life of over 2.4 million people globally. According to the World Health Organization (WHO), the outbreak of corona virus disease 2019 (COVID-19) has become a pandemic, which at the time of writing had affected more than 100,000 people and caused more than 3000 deaths worldwide.

The epidemics of COVID-19 have been recorded over 200 countries, territories, and areas with 2878196 confirmed cases and 198 668 death cases. On 11 March 2020, WHO changed the status of the COVID-19 emergency from public health international emergency (30th January 2020) to a pandemic. Nonetheless, the fatality rate of the current pandemic is on the rise (between 2%-4%), relatively lower than the previous SARS-CoV (2002/2003) and MERS-CoV (2012) outbreaks.

In India, a confirmed case of COVID-19 was reported on 30th January 2020, who was a student travelled from Wuhan, China and has successfully recovered from the infection on 14th February 2020. On 27th April 2020, the Ministry of Health and Family Welfare confirmed a total of 28,380 confirmed cases, 6362 cured/ discharge cases, and 886 death cases in the country from 32 states/ union territories. The infection rate of COVID-19 in India is reported to be 1.7%, significantly lower than the worst affected countries, as the report on 29 March 2020. After a 14-hour voluntary public curfew named as 'Janta Curfew', India immediately announced the implementation of a nation-wide complete lockdown for 21 days (i.e. up to 14th April 2020), which only allowed essential services to operate over the entire 130 million population of India. The battle against covid-19 is still unending in India.

In December 2019, a pathogenic human corona virus SARS-CoV-2, corona virus disease 2019 (COVID-19), was recognized and has caused serious illness and numerous deaths. The ultimate scope and effect of this outbreak are unclear at present as the situation is rapidly evolving. The disease causes respiratory illness (like the flu) with main clinical symptoms such as a dry cough, fever, and in more severe cases, difficulty in breathing. COVID-19 is highly contagious with a certain mortality rate, and it was classified as a class B infectious disease and managed as a class A infectious disease in China in January 2020. China has taken firm infection control measures, isolating the exposed and suspected cases according to international standards, constantly updating the diagnosis and treatment process, and carrying out public education.

Statement

Knowledge towards Covid-19 among the Nursing students during the rapid rise period of COVID-19 outbreaks: a quick online cross-sectional survey in Navi Mumbai.

Objectives

- To determine the knowledge of Covid-19 among nursing students in selected nursing colleges of Navi Mumbai.
- To assess the association between knowledge score and selected demographic variables among nursing students in selected nursing colleges of Navi Mumbai.

Hypothesis

H₁: There will be significant level of knowledge among nursing students regarding Covid-19 in selected Nursing colleges of Navi Mumbai.

H₂: There will be significant association between level of knowledge and selected demographic variables among nursing student.

Material and Method

Study Design and Setting: Descriptive online survey approach with a typical descriptive design was adopted in the present study.

Sampling Size and Sampling Method: In current study Sample size was 40 and Convenience sampling technique was used for the selection of Nursing students who are given consent and willing are included in the study.

Data Collection Tool and Technique: Self developed online knowledge questionnaire on COVID-19 was used for collecting relevant information from first year nursing students. The tools were divided into two parts.

Part I: Baseline Proforma to elicit socio-baseline information of the samples and it consists of items from 1-4.

Part II: Structured knowledge questionnaire with 25 items regarding knowledge Covid-19. The investigator administered the questionnaire to the samples after obtaining consent and instructed them to fill online Google form which has given multiple choice questions. Instructions given to them to click on correct response. Total score was 25, correct response will scored as '1' and '0' for wrong answer.

Data was collected from 22nd march 2020 to 28th march 2020. Online questionnaire was distributed among nursing students. Total 50 students have filled the online questionnaire but 10 forms were incomplete so our sample size was 40.

Statistical Analysis

Statistical analysis was done by using descriptive and inferential statistics. Data were collected, revised, coded, analyzed, and tabulated using number and percentage distribution.

STUDY PROTOCOL

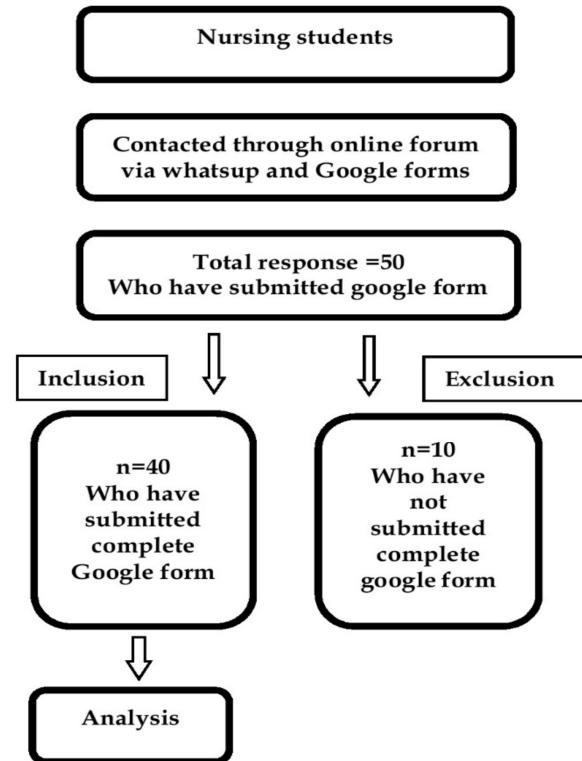


Fig. 1: Study Protocol.

In order to assess level of knowledge of nursing students regarding COVID-19, the percentage scores were graded arbitrarily as follows:

Interpretation of knowledge	Score
Adequate	More than 75%
Moderately adequate	50%-75%
Inadequate	Less than 50%

Result

The results have been organized and presented in 3 parts:

Section I: Data on demographic.

Table no. 1: Data on demographic variables.

Characteristics	Category	Respondent	
		Number	Percentage
Gender	Male	4	15%
	Female	36	85%
Age	17-18yrs	7	17.5%
	18-19yrs	19	47.5%
	19-20yrs	12	30%
	Above 20yrs	2	5%
Do you have any knowledge about COVID 19	Yes	38	95%
	No	2	5%
If yes from where?	News channel	30	75%
	Peer group	0	0
	Whats app group	0	0
	Doctors	4	10%
	Others	4	10%
	Total	40	

The above data reveals on Age distribution of samples. Regarding data on Gender distribution of samples, 15% were males and 85% were females. 17.5% were in 17-18yrs, 47.5% were in 18-19yrs and 30% were in 19-20yrs, 5% were in above 20yrs. Regarding background knowledge of COVID 19, 75% of the samples has knowledge on COVID. 75% of samples got knowledge from news channel, 10% samples got knowledge from doctors and 10% samples got knowledge from other sources.

Section I: Data on knowledge level about Covid-19 among nursing students.

Table 2: Frequency and percentage distribution of existing knowledge of nursing students regarding COVID-19.

n=40		
Content	Frequency	Percentage
Adequate	25	62.5%
Moderate adequate	15	37.5%
Inadequate	0	0
Total	40	100%

Data shown in the Table 2 shows that 37.5% of the nursing students had moderate level of knowledge and 62.5% had adequate level of knowledge.

Table 3: Mean, SD and mean percentage of level of knowledge regarding COVID-19 among nursing students.

Mean	Median	Mode	SD
19.4	19.5	18	0.41

Data in Table 3 reveal that the overall mean percentage of the nursing student's knowledge regarding COVID-19 Mean is 19.4, median 19.5 and SD is 0.41.

Part III: Data on association between knowledge of nursing students on COVID-19 and selected demographic variables.

Table 4: Association of knowledge level of nursing students on COVID-19 and selected demographic variables.

Base Line Variable	DF	Calculated Value (X2)	Table Value	Inference
Age	3	2.0037	7.82	Non-Significance
Gender	1	0.296	3.84	Non-Significance
Do You Have Any Knowledge About COVID 19?	1	0.1404	3.84	Non-Significance
Yes				
No				
If yes from where?				
News channel				
Peer group				
Whatsapp group	2	0.8885	5.99	Non-Significance
Doctors				
Others				

*NS = Not significant; S = Significant.

To find the association between the knowledge and selected baseline variables of nursing students, the following null hypothesis was formulated against research hypothesis. The hypothesis was tested by using chi-square test at 0.05 levels of significance.

H₀: There will be no significant association between the level of knowledge and selected demographic variables among nursing students.

Discussion

Findings of the current study is supported by study done on Knowledge, attitude, and practice towards Coronavirus disease 2019 (COVID-19) among medical students: A cross-sectional study done by Sonam Maheshwari, Puneet Kumar Gupta, Richa Sinha et al. Objective of the study was to assess knowledge, attitude, and practice of medical students towards coronavirus disease 2019 (COVID-19). A self-designed questionnaire was developed and given to the students of a government medical

college in Uttarakhand. The demographics mean knowledge, attitude, and practice of the participants were investigated, and the scores were calculated. t-test and ANOVA were used for statistical analysis. Results reveals that out of the total participants (n=354), 50.3% were male and 54.5% were 21-23 years. Almost all the participants (96.6%) increase the frequency of washing hands under the influence of COVID-19. Although no significant relationship was found between different religions, age-categories in terms of knowledge, the participants who were aged 21-23 years had higher knowledge. In addition, gender had a significant impact on practice scores (P<0.05) while no demographic variable was found to have a significant relation with attitude score (P>0.05).

In current study 37.5% of the nursing students had moderate level of knowledge and 62.5% had adequate level of knowledge.

Nursing Implications

Current study proved that the knowledge of COVID-19 among nursing students is moderately adequate, and it can be improved by distributing the information booklets. More and more research can be carried out on the knowledge of COVID-19 and teach them transmission, symptoms and various measures to prevent COVID-19 and its precautions in public. The nurse researchers can further plan, implement, and evaluate a planned health education program on the various measures to prevent transmission and control COVID-19.

Recommendation

Based on the findings of the present study, the following recommendations are offered for further research:

- A similar study could be undertaken on a large sample where findings can be generalized.
- A similar study could be undertaken on a large sample of non medical peoples where findings can be generalized.
- A follow-up study can be conducted to evaluate the effectiveness of self-instruction module.

Conclusion

There is a moderate awareness related to transmission and symptoms of COVID-19 among educated population in India. Continued professional education is advised among Health care workers to improve knowledge of Covid-19. We recommend follow up studies involving teaching and non-teaching hospitals across the country.

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