



# “Perception on prevention of COVID - 19 among Undergraduate nursing student”

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## Abstract

**Introduction:** The current pandemic of coronavirus disease (COVID-19) caused by a novel strain (SARS-CoV-2) is enormous and continues to pose a threat to the lives of people. Healthcare professionals are at higher risk of contracting the new coronavirus disease 2019 (COVID-19). Nurses and nursing students are in close contact with infected persons, and their knowledge plays a vital role in preventing the transmission chain. Although appropriate preventive measures are the foremost important interventions to prevent coronavirus infection among healthcare workers, they're also highly concerned about the implications of the pandemic<sup>1</sup>. **Objective:** To assess the perception regarding COVID-19 prevention among UG students. **Method:** Quantitative research approach was used. A descriptive design with Non-probability Purposive sampling technique was used. Sample taken in this study were 49 undergraduate final year nursing students. The study used structured questionnaire for assessing perception of Nursing students on prevention of COVID-19. **Results:** The Majority of participants were female (93.9%) The mean score of the participant is 7.73, range is 5-11, and majority of student's source of learning COVID-19 was Social media (36.7%) and News (34.7%). Majority (69.38%) students having average perception towards prevention of COVID-19, whereas 30.62 % students having good perception regarding Prevention of COVID-19. **Conclusion:** There is a need to teach the students and work on their level of knowledge and perception in terms of prevention of Covid-19.

**Keywords:** Perception, Prevention, Covid-19, Nursing, Students.

## Introduction

COVID-19 is a new emerged disease with so many unknown clinical and therapeutic aspects. Although healthcare providers play important roles in confining and controlling the disease and rehabilitating patients, they are at a great risk of being contaminated. Among medical staff, nurses are considered as frontline forces fighting against COVID-19 and are in persistent contact with patients from admission to discharge. Therefore, nurses are exposed to many occupational hazards and psychological pressures as

well. Moreover, the experiences of nurses dealing with the SARS crisis suggest that many problems such as uncertainty, information mismanagement, feelings of anger and guilt, unpreparedness, fear of death, loneliness and physical disorders are common during such catastrophes<sup>2</sup>.

COVID-19 is an infectious disease caused by a new type of coronavirus associated with the severe acute respiratory syndrome (SARS) (Gorbalenya, 2020). The COVID-19 was reported as the cause of the outbreak of coronavirus in Wuhan, China (Hui et al., 2020), where it was first reported on 31 December 2019. Due to the rapid outbreak which involved most countries around the globe, the World Health Organization (WHO) declared this disease as a pandemic on 11 March 2020 (WHO, 2020). The number of people infected with COVID-19 has reached 4,098,970 with the death toll of 471,519 worldwide until 22 June 2020.<sup>3</sup>

The disease is mainly transmitted through infected micro-droplets during coughing or sneezing. The incubation period of the disease ranges from 2 to 14 days. Constant handwashing, social distancing and following health instructions are the main preventive measures.

Common symptoms include fever, cough and dyspnea. In most cases, the symptoms of the disease are mild as compared to the failure of vital organs such as the lungs, heart and kidneys in some cases. According to cohort studies, about 80% of patients with COVID-19 have mild symptoms, half of whom may require hospitalization. About 20% of COVID-19 patients may experience severe symptoms requiring oxygen therapy or other hospital-based interventions. Finally, around 5% of patients experience more severe symptoms needing advanced respiratory support by a ventilator in the intensive care unit. The mortality rate of the disease has been estimated as 1%–5%, but this varies depending on patients' age and health status, especially the presence or absence of underlying diseases.<sup>4</sup>

First case of COVID-19 infection reported in Kerala, India. On January 27, 2020, a 20yr old female presented to the Emergency Department in General Hospital, Thrissur, Kerala, with a one-day history of dry cough and sore throat. There was no history of

fever, rhinitis or shortness of breath. She disclosed that she had returned to Kerala from Wuhan city, China, on January 23, 2020 owing to COVID-19 outbreak situation there. She was asymptomatic between January 23 and 26. On the 27<sup>th</sup> morning, she felt a mild sore throat and dry cough.<sup>5</sup>

## Material and Methods

A Quantitative research approach was adopted with descriptive design with Non- probability Purposive sampling technique. Sample taken in this study were 49 undergraduate final year nursing students who were willing to participate in study. The study used self-reported structured questionnaire for assessing perception of Nursing students on prevention of COVID-19 which included previous knowledge and source, formal training on hand hygiene, basic virology of SARS, use of PPE. Tool was submitted to 15 experts from nursing fraternity and imperative amendments were made from recommendations.

## Results

*Sample characteristics:* There were 49 Undergraduate nursing students.

*Objective:* To assess the perception regarding prevention of COVID-19 among undergraduate nursing students.

**Table 1:** *Distribution of demographic data*

	n=49	
Gender	f	%
Male	03	6.1%
Female	46	93.9
<b>Total</b>	<b>49</b>	<b>100%</b>

Table 1 shows that, 6.1% participants were male nursing students and 93.9 % participants were female nursing students.

**Table 2:** *Distribution of perception towards prevention of COVID-19.*

	n=49	
Perception	f	%
Poor	0	
Average	34	69.38
Good	15	30.62

Table 2. shows that, 69.38% students having average perception towards prevention of COVID-19, where as 30.62 % students having good perception regarding Prevention of COVID-19. None of the students had poor perception regarding prevention of COVID -19.

**Table. 3** Item wise analysis of level of perception score on prevention of COVID-19.

N=49

Sr. No.	Items of Level of Perception on COVID_19	Mean
1.	COVID-19 contagious disease	4
2.	Incubation period of COVID-19	2.45
3.	COVID-19 virus spread	3.36
4.	COVID-19 and SARS same	1.18
5.	All age groups equally susceptible to COVID-19 virus	3.27
6.	clinical trial in which blood is transfused from recovered COVID-19 patients to a infected COVID-19 patient	3
7.	Preferred method of hand hygiene for visibly soiled hands	2.81
8.	Effective method for prevention of COVID-19 infection in the healthcare settings	3.27
9.	correct sequence for putting on PPE	1.54

- |     |  |      |
|-----|--|------|
| 10. | diagnostic test has been more commonly used in the diagnosis of COVID-19 | 3.90 |
| 11. | wear mask while exercising   | 1.18 |

Table 3 depicts that, Perception related to contagious disease, virus spread, affected age group, plasma therapy, preventive measures in hospital settings, diagnostic test for COVID-19. On these items students have satisfactory perception towards COVID-19.

Differentiating SARS and COVID, correct donning method, sequence of PPE, wearing mask while exercising. On these items students had low unsatisfactory perception.

### **Discussion:**

The result revealed that, majority (93.9%) of student participants were females; whereas there were only 6.1% male participant. 69.38% students having average perception towards prevention of COVID-19, whereas 30.62% students having good perception regarding Prevention of COVID-19. None of the students had poor perception regarding prevention of COVID -19. 36.7% participants learned about Covid-19 from social media platforms, 34.7% participants learned from news channels, 22.4% participants learned from health professionals, 6.1% participants got to know from friends. 91.8% students' participants received formal training on hand hygiene; whereas 8.2% participants did not receive any training regarding hand hygiene. 46 students' participants (93.9%) will receive vaccine against COVID-19 if it's recommended; whereas only 3 students' participants (6.1%) were not willing to take vaccine. Mean score of perception level of students regarding Covid-19 is 7.73. Majority (69.38%) of the students have average perception, most of the students got the information and learned about COVID-19 from social media platform like WhatsApp, Instagram, Twitter etc. ; whereas 37.7% learned from news channels on TV or internet sources. As the samples are only from one selected institute and only one class is selected for study purpose, the perception level is difficult to compare with other studies conducted in large numbers and multiple settings. Though the participants neither scored poor not good, none of the participants scored poor perception of COVID-19. This shows that, there is more need to update the knowledge of undergraduate nursing students on prevention of COVID-19.

**Conclusion:**

The aim of this study was to assess the perception of undergraduate nursing students in prevention of COVID-19. Findings of the study concludes that undergraduate nursing students had Average Perception on prevention of COVID-19. Study provides a basis for developing an educational program aimed at improving nursing students' perception on preventive behavior against COVID-19. It is very essential to equip all nursing students, who will be at the forefront of providing health services in the future, with the correct knowledge and practices regarding as such outbreaks and managing pandemics. Therefore, knowledge of nursing students needs to be enrich to ensure the proper practices are followed to prevent COVID-19. Thus, an interesting and demonstrative learning method can be adopted to impart needed knowledge and enhance perception regarding prevention of COVID-19. to is required to make them knowledgeable enough against COVID-19.

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**Conflict of Interest:** No author had any conflict of interest to declare.

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