# Knowledge regarding COVID-19 among 2nd Year B. Sc (N) Students in a Selected Nursing College of Guwahati, Assam

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**Abstract:** *Introduction: Coronavirus disease - 19 (COVID - 19) is a respiratory infection that is familiar to cause illness ranging from the common cold to severe acute respiratory syndrome (SARS) which originated in Wuhan, China, escalated into a global pandemic, affecting people across nearly every country. Objectives: This study aimed to assess the level of knowledge regarding COVID - 19 among 2nd year B. Sc (N) students. Materials and Method: The study adopted a non - experimental descriptive research design. Self - structured knowledge questionnaire was used to collect data from a sample of 34 nursing students studying in Faculty of Nursing, Assam down town University, Guwahati, Assam using non - probability purposive sampling technique. Data was analyzed by using descriptive and inferential statistics. Results: The findings of the study revealed that out of 34 nursing students, majority 20 (58.83%) of the students had inadequate knowledge, 10 (29.41%) had moderate knowledge and 4 (11.76%) had adequate knowledge regarding COVID - 19. The mean score of the level of knowledge was 10.64 and standard deviation was 2.533. There was no significant association of knowledge regarding COVID - 19 with demographic variables. Conclusion: Findings of the study revealed that knowledge regarding COVID - 19 among 2nd year B. Sc (N) students of Faculty of Nursing, Assam down town University, Guwahati, Assam was inadequate. There is a strong need to implement periodic educational interventions and training programs on all updates of COVID - 19 across all healthcare professions including nursing students. This would improve the confidence and knowledge of nursing students to provide the proper care to their patients and protect them self from COVID - 19.*

**Keywords:** Assess, Knowledge, COVID - 19, HCWs

## 1. Introduction

*""The character of a nurse is as important as the knowledge she possesses."*

*- Carolyn Jarvis*

COVID - 19 is a respiratory infection that is familiar to cause illness ranging from the common cold to severe acute respiratory syndrome (SARS), which was first reported in December 2019, in Wuhan city, Hubei Province, China.1 Coronavirus is an enveloped RNA virus transmitted by human - to - human through the inhalation of droplets. The viral antigens are diagnosed in the respiratory secretions and antibodies in the serum by using the enzyme - linked immunosorbent assay (ELISA) test.2 COVID - 19 is defined as an infectious disease caused by a newly discovered coronavirus called Severe Acute Respiratory Syndrome Coronavirus 2 (SARS - CoV - 2).3 Fever, dry cough, fatigue, myalgia, shortness of breath, and dyspnea are the main identified clinical symptoms of COVID - 19.4

## 2. Need of the study

The current COVID - 19 pandemic is clearly an international public health problem. There have been rapid advances in what we know about the pathogen, how it infects cells and causes disease, and clinical characteristics of disease. Due to rapid transmission, countries around the world should increase attention into disease surveillance systems and scale up country readiness and response operations including establishing rapid response teams and improving the capacity of the national laboratory system.5

According to the World Health Organization (WHO), the outbreak of coronavirus 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.5 As of February 21st, 2020, the virus has affected 3019 healthcare workers (HCWs) with five deaths The fact that HCWs are at risk of infection in the epidemic chain is a critical issue because HCWs help in controlling the outbreak. Therefore, all possible actions must be taken to control the spread of the infection to HCWs, first by identifying the risk factors for infection and then by taking appropriate measures to reduce these risks.6

World Health Organization reports that Kerala has the third highest number of confirmed cases in India which accounts for 23.29% test positivity rate in Kerala with 6, 612 deaths and 83.89% recoveries in state.7 In India, a cross - sectional study was conducted to determine on knowledge, attitude, and practices demonstrated that 68.67% of nursing students possessed excellent knowledge apropos of COVID - 19, which would be a large reservoir for healthcare response in the future.8 Another study conducted within the nursing students in Nigeria showed that 73.7% had good knowledge, 66% of them had a positive attitude regarding COVID - 19, and 62.8% expressed their willingness to serve as volunteers

in the care of infected patients.9 The results highlight the importance of consistent messaging from health authorities and the government as well as the need for tailored health education programs to improve levels of knowledge, attitudes and practices[7]. Hence the researcher felt the need
to assess the knowledge and attitude of the students nurses towards covid 19 and to impart knowledge among student nurses.

## 3. Literature Survey

**Study related to the knowledge regarding Covid - 19 among the nursing students**
**Fernandes M, Thakur JR, Gavanje MS (2021)** conducted a study to assess the knowledge regarding Covid - 19 among 421 nursing students, Maharastra. Non probability Convenience sampling method was used for selecting the sample. Pre designed and pre tested questionnaire was used in this study. Questions were related to knowledge and awareness about COVID - 19. The participants were directed to complete the self report survey by online mode. The data was statistically analyzed. The result revealed that majority of sample had average knowledge of COVID - 19. The study concluded that the study participants showed adequate basic knowledge. There is need to implement periodic educational interventions and training programme on infection control and other updates of COVID - 19 across all health care professions including nursing students.[10]

**Banu B, Akter N, Chowdhury SH (2020)** conducted a study to assess the knowledge on Covid - 19 among 150 nursing students of a selected Nursing Institute of Dhaka City, Bangladesh. Random sampling technique was used to select the sample. Data were collected by using a pre - tested questionnaire through a telephonic interview by trained and experienced interviewers. The result revealed that level of knowledge was observed poor (67.3%) among more than half of BSc nursing students. A greater part of nursing students got poor knowledge on the preventive measures to reduce transmission of COVID 19 (98.7%; 40.20±12.39) & management of COVID 19 (94.7%; 40.20±12.39). In terms of predicting the causes of poor knowledge, this study found that B. Sc nursing students of the second year (AOR= 2.53, p < 0.01) are more likely to have poor knowledge on COVID - 19 compared to another educational group. The study concluded that nurses are the frontiers to mitigate COVID - 19 and manage the affected people effectively. Therefore, knowledge of them needs to be perfect to ensure the proper practice to prevent COVID - 19. Thus, an enthusiastic and demonstrative learning system is required to make them knowledgeable enough against COVID - 19.[11]

**Problem Statement**
A study to assess the knowledge regarding COVID - 19 among 2nd year B. Sc (N) students in a selected nursing college of Guwahati, Assam.

**Aim**: This study aimed at assessing the knowledge regarding COVID - 19 among 2nd year B. Sc (N) students.

**Objectives of the Study**
1) To assess the level of knowledge regarding COVID - 19 among 2nd year B. Sc (N) students.
2) To find the association between the knowledge regarding COVID - 19 among 2nd year B. Sc (N) students and selected demographic variables.

## 4. Methodology

In this study, Quantitative Research Approach was used. Non - Experimental research design was adopted for the study. In the study 34 nursing students from Faculty of Nursing, Assam down town University, Panikhiati, Guwahati, Assam were selected by using non probability purposive sampling technique. The tool used for the study were demographic variables and self - structured knowledge questionnaire. In order to determine the content validity, the research tools was given to five experts from the field of Medical surgical nursing. The reliability of the self - structured knowledge questionnaire was established by split half method. The analysis was done by using both descriptive and inferential statistics in terms of frequencies, percentages, mean, standard deviation and chi square test.

## 5. Results/ Discussion

**Table 1:** Frequency and Percentage distribution of demographic variables, n=34

| Demographic variables | Group | Frequency | Percentage |
|---|---|---|---|
| Age in years | 17 – 20 | 4 | 11.76% |
| | 21 – 24 | 30 | 88.23% |
| | 25 and above | 0 | 0 |
| Gender | Male | 2 | 5.88% |
| | Female | 32 | 94.11% |
| Residential area | Town | 22 | 64.70% |
| | Village | 12 | 35.29% |
| Religion | Hindu | 19 | 55.88% |
| | Muslim | 8 | 23.52% |
| | Christian | 7 | 20.58% |
| | Others | 0 | 0 |
| Usage of face mask | Disposable mask | 18 | 52.94% |
| | Cloth mask | 3 | 8.82% |
| | N95 mask | 13 | 38.23% |
| | Use handkerchief | 0 | 0 |
| Participation in COVID 19 online classes/ webinar | Yes | 32 | 94.12% |
| | No | 2 | 5.88 % |

The data in Table 1 showed that majority 30 (88.23%) of the students belonged to the age group of 21 - 24 years, majority 32 (94.11%) of the students were female, majority of the participants 22 (64.70%) resided in town area. Majority 19 (55.88%) of the students belonged to Hindu religion, and majority 18 (52.94 %) used N95 mask and 32 (94.12%) of the students participated in COVID - 19 online classes/webinar.

**Table 2:** Frequency, percentage, mean and standard deviation of level of knowledge of nursing students regarding COVID 19
n=34

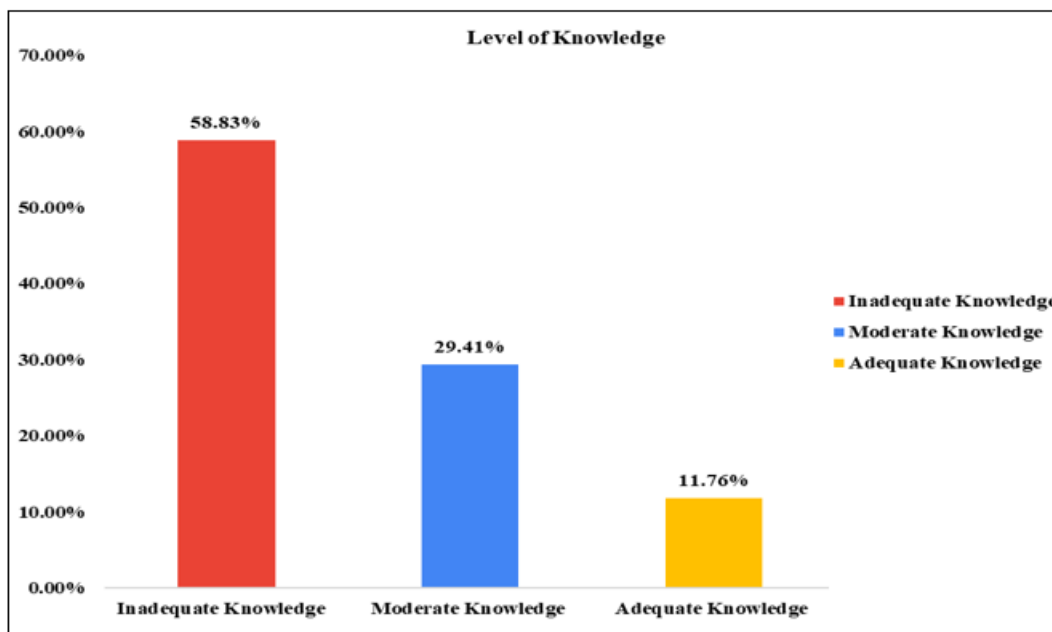| Level of Knowledge | Score | Frequency (f) | Percentage (%) | Mean | SD |
|---|---|---|---|---|---|
| Inadequate Knowledge | 0 - 10 | 20 | 58.83% | | |
| Moderate Knowledge | 11 - 15 | 10 | 29.41% | 10.64 | 2.533 |
| Adequate Knowledge | 16 - 20 | 4 | 11.76% | | |
| TOTAL | 20 | 34 | 100 | | |



**Figure 1:** Bar Diagram showing percentage distribution of students according to level of knowledge, **n=34**

**Table 3:** Chi square test showing the association between level of knowledge regarding COVID 19 among the nursing students with demographic variables, n= 34

| Demographic variables | Group | Level of Knowledge | | | Chi square | df | Remarks |
|---|---|---|---|---|---|---|---|
| | | Inadequate Knowledge | Moderate Knowledge | Adequate Knowledge | | | |
| Age in Years | 17 – 20 | 2 | 1 | 1 | .76 | 2 | NS |
| | 21 – 24 | 18 | 9 | 3 | | | |
| Gender | Male | 0 | 1 | 1 | 4.19 | 2 | NS |
| | Female | 20 | 9 | 3 | | | |
| Residential area | Town | 13 | 7 | 2 | .50 | 2 | NS |
| | Village | 7 | 3 | 2 | | | |
| Religion | Hindu | 9 | 7 | 3 | 3.19 | 4 | NS |
| | Muslim | 6 | 1 | 1 | | | |
| | Christian | 5 | 2 | 0 | | | |
| Usage of face mask | Disposable mask | 11 | 7 | 0 | 6.43 | 4 | NS |
| | Cloth mask | 2 | 0 | 1 | | | |
| | N95 mask | 7 | 3 | 3 | | | |
| Participation in COVID - 19 online classes/webinar | Yes | 19 | 9 | 4 | 0.58 | 2 | NS |
| | No | 1 | 1 | 0 | | | |

The present study revealed that there was no significant association between knowledge regarding COVID - 19 among 2nd year B. Sc (N) students with selected demographic variables.

## 6. Future Scope

1) The study can be replicated on large number of samples in a different setting to have wider generalization of findings.
2) Developing a self - instructional module or structured teaching programme could improve the knowledge and practice of nursing students in COVID - 19.

3) A comparative study could be undertaken to discern any knowledge disparities between B. Sc. (degree) and GNM (diploma) nursing students.

## 7. Conclusion

This study aimed at assessing the knowledge among 2nd year B. Sc (N) students regarding COVID - 19. The findings of the study revealed that participants showed inadequate knowledge and awareness of COVID - 19. There is a strong need to implement periodic educational interventions and training programs on all updates of COVID - 19 across all healthcare professions including nursing students. This would

improve the confidence and knowledge of nursing students to provide the proper care to their patients and protect them self from COVID - 19.

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