



## **A Descriptive Cross Sectional Study to Assess the Prevalence of Long Covid Symptoms Among B.Sc Nursing Students of College of Nursing, Kannur Medical College, Anjarakandy**

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### **Abstract**

The present study was undertaken to assess the prevalence of Long Covid Symptoms among students of College of Nursing at Kannur Medical College Anjarakandy, with the objective of assessing the prevalence of Long Covid Symptoms among B.Sc Nursing students using questionnaire and check list. Descriptive cross sectional design was used for the study. A total of 60 B.Sc nursing students were selected for the study using consecutive sampling and sampling criteria. The prevalence of Long Covid Symptoms was collected from the students by using structured checklist. Result of study shows that among the 60 B.Sc Nursing students 48 (80%) of the students have mild degree of Long Covid Symptoms among that most common symptoms include Fatigue 37 (87%), fever 26 (6.1%), headache 30 (7.1%), Sore throat 20 (4.7%), runny nose 22 (5.2%), hair loss 38 (9.0%), cough and sputum production 24 (5.7%). There is significant association between prevalence of Long Covid Symptoms and socio demographic variables. Hence research hypothesis (H1) is accepted and null hypothesis is rejected.

**Keywords:** Prevalence, Long Covid Symptoms, bsc nursing students

### **INTRODUCTION**

The human body is a battle field of viruses. A virus can be simply defined as obligate intracellular parasite. Each viral particle consist of single nucleic acid, RNA or DNA, encoding the viral genome surrounded by a protein coat, and is capable of replication only within the living cell of bacteria, animals, plants.

The corona virus disease (COVID-19) pandemic, which originated in Wuhan, china, has quickly spread to various countries with many cases reported worldwide. It is caused by severe acute respiratory syndrome corona virus (SARS-COV-2) infection. As of 28 July 2020, 16,341,920 covid-19 cases and 650,805 deaths

worldwide have been reported. While the global community is focusing on trialing covid-19 vaccines and acute treatment, it is equally important to evaluate the short term and long term consequence of covid-19 survivors. By 28 July 2020, 10,451,291 people had recovered from covid-19.

### **BACKGROUND OF THE PROBLEM**

The Centre for Disease Control and Prevention estimate that 3-17% of covid-19 patients develop a complication known as Acute Respiratory Distress Syndrome (ARDS). The symptoms in brain

- Fatigue, brain fog, trouble sleeping, mood disorders. In respiratory and Cardiovascular, there will be cough, shortness of breath, trouble breathing, chest pain, rapid heart rate. Other symptoms are organ damage in liver, pancreas, ringing in ears, loss of taste/smell, sore throat, diarrhea, nausea, muscle and joint pain.

The most common symptoms of post COVID-19 Condition include.

- Fatigue
- Shortness of breath or difficulty breathing
- Memory, concentration or sleep problems.
- Persistent cough
- Chest pain, muscle pain
- Loss of smell or taste
- Depression or anxiety.
- Fever

### **NEED AND SIGNIFICANCE**

Based on broad spectrum clinical manifestation associated with the involvement of multiple organs in patients infected with SARS and Covid 19 is now considered a systemic illness. The immediate complications of covid 19 are increasingly being recognized and are associated with increased morbidity. Through the evolution of the global pandemic it become increasingly clear that the patient with pre existing conditions such as diabetes mellitus, chronic kidney disease, chronic cardiovascular disease, chronic liver disease are at increased risk of long term post covid complications. Female patients recovering from covid 19 were more prone to develop symptoms of long term covid 19 symptom especially fatigue, anxiety and depression at 6 month follow up.

### **STATEMENT OF THE PROBLEM**

“A descriptive cross sectional study to assess the prevalence of Long Covid Symptoms among B.Sc Nursing students of College Of Nursing, Kannur Medical College, Anjarakandy.” OBJECTIVE OF THE STUDY

- Assess the prevalence of Long Covid Symptoms among B.Sc Nursing students.

### **HYPOTHESIS**

H1: There is an association between Long Covid Symptoms and selected socio-personal variable at 0.05 Level of significance.

### **ASSUMPTION**

The study assumes that:

- There may be an association between Long Covid Symptom and selected socio- personal variable.

## **METHODOLOGY**

Research Approach- The Quantitative research approach Research Design - Descriptive Cross sectional design.

Population- The population selected for the study is the B.Sc Nursing students. Sample - The sample consists of 60 B.Sc Nursing students, who had covid-19. Sampling Technique- Consecutive sampling.

## **SAMPLING CRITERIA**

### **INCLUSION CRITERIA:**

B.sc nursing student who:

- Had covid-19
- Studying in College of Nursing, Kannur Medical College, Anjarakandy
- Are able to comprehend Malayalam

### **EXCLUSION CRITERIA:**

B.sc nursing student who:

- Are absent during data collection
- Are not willing to participate in study

## **DESCRIPTION OF THE TOOL**

TOOL 1: Interview schedule to assess the socio-demographic variable among B.Sc Nursing students.

TOOL 2: A checklist to assess the Long Covid Symptoms among B.Sc Nursing students

TECHNIQUE: Interview and Self- report technique.

TOOL 1:

- Interview schedule to assess the socio-demographic variables among the B.Sc Nursing students
- It comprises category of students, gender, no. of covid attack, period elapsed after covid-19, vaccination status, name of vaccines and number of dose.

TOOL 2:

- A checklist to assess Long Covid Symptoms among B.Sc Nursing students
- The checklist consist of 36 items, under two domain: physical(1-32) and mental(33- 36) symptoms.

## **SCORING**

- Maximum score- 36

- Minimum score- 0

DEGREE	SCORE	FREQUENCY	PERCENTAGE
MILD	0-11	48	80%
MODERATE	12-24	12	20%
SEVERE	25-36	0	0%

### **ETHICAL CLEARANCE**

The Scientific Review Committee and the Institutional Ethics committee of Kannur Medical College, Anjarakandy approved the study. Permission was also obtained from the principal of College Of Nursing, Kannur Medical College. Informed consent was obtained from B.Sc Nursing students before data collection and ensured anonymity and confidentiality of data.

### **CONTENT VALIDITY OF TOOL**

The checklists were given to three experts from the field of Masters of Nursing to ensure content validity. The initial draft consists of 37 items. After suggestions from experts the two items clubbed together and categorized the checklist under two domains: physical (1-32) and mental (33-36) symptoms. After content validity, the final tool consists of 36 items.

### **TRANSLATION OF THE TOOL**

Tool was translated to Malayalam with experts in both language and retranslated back into English, found the tool to be equally semantic.

### **RELIABILITY OF THE TOOL**

To establish reliability, the tool was administered among 6 B.Sc Nursing students. Stability was measured by using test-retest method. The reliability of the rating scale was found to be 0.98.

### **PILOT STUDY**

After getting permission from the concerned authorities, collected data from 6 B.Sc Nursing students in College Of Nursing, Kannur Medical College, Anjarakandy using consecutive sampling technique. The socio-demographic variables were collected using the interview technique and assessed the prevalence of Long Covid Symptoms using checklist. The data were tabulated and analyzed by using descriptive and inferential statistics.

### **DATA COLLECTION PROCESS**

After getting approval from Institutional ethics committee, College Of Nursing, Kannur Medical College and approval from the Head of the Institution, the data were collected among 60 B.Sc Nursing students as per sampling criteria and by consecutive sampling technique. The duration of data collection was from 20-01-2023 to 23-01-2023.

The investigator visited the College of Nursing, Kannur Medical College, Anjarakandy. Investigators introduced themselves to the study participants and established rapport. After explaining the purpose of the study to students, assured confidentiality of the data and obtained the informed consent.

The interview schedule was used to assess the socio-demographic variables. The checklist was used to assess

the prevalence of Long Covid Symptoms. The tool was administered to each individual and it took 10-15 minutes to collect data from each individual.

### **PLAN FOR DATA ANALYSIS**

The data would be analyzed following descriptive and inferential statistics and presented in tables and figures.

- Socio-demographic characteristics were analyzed in terms of frequency and percentage, would present using graphs.
- The prevalence of Long Covid Symptoms analyzed by frequency and percentage.
- Association between socio-demographic variable and prevalence of Long Covid Symptoms were done using chi-square test.
- $P < 0.05$  is considered statistically significant.

### **RESULT AND DISCUSSION**

The study findings are discussed below, with the results of the other studies the investigator reviewed.

The following major results are obtained;

- Among 60 students, most of the students belong to 3rd year.
- Majority of the students are female.
- Only 5% of students had 3rd covid attack.
- 100% of students had covid-19 before more than 6 month.
- 100% of students are vaccinated.
- Majority of the students taken covishield.
- 10% of students taken 1st dose, 82% taken 2nd dose and only 8% taken booster dose.
- Among 60 B.Sc Nursing students 48 (80%) of the students have mild degree of Long Covid Symptoms.
- Most prevalent Long Covid Symptoms were fatigue 37(8.7%), fever 26(6.1%), headache 30(7.1%), sore throat 20(4.7%), runny nose 22(5.2%), hair loss 38(9.0%), cough and sputum production 24(5.7%).
- There is a significant association between socio-demographic variable like category of students, gender, no. of covid attack, name of vaccine and no. of dose with Long Covid Symptoms

### **CONCLUSION**

**Based on the findings of the study following conclusions are derived,**

- Study shows that females are more affected with post covid symptoms than males
- Most common symptoms are fatigue, fever, headache, nausea/vomiting, runny nose, hair loss, cough and

sputum production.

## **NURSING IMPLICATIONS OF THE STUDY**

The study findings have implications for nursing practice. Nursing education, Nursing administration and Nursing research.

### **Nursing Practice**

Nursing is a healthcare profession focused on the care of individuals, families, and Communities so they may attain, maintain or recover optimal health and quality of life. One of the most important aspects of supporting people with long COVID will be to recognize the symptoms and ensure that they get the help that they need. The wide range of symptoms people may experience means that a multi-disciplinary approach will be needed. Symptoms should be identified through careful history taking and patients should be holistic well-being so, nurses can utilize this study findings to identify and recognize various kind of Long Covid Symptoms and also they can use the study findings to assess, recognize and manage post covid patients.

### **Nursing education**

Nursing education should integrate evidence based teaching and learning processes and help learner's interpret and apply evidence in clinical teaching. The nurse educator can utilize study finding to teach nursing student regarding Long Covid Symptom. And educate the patient and student to wear mask when surrounded with other people or animals, including pets (even at home).Wear a mask with the best fit, protection, and comfort for you. Cover your mouth and nose with a tissue when you cough or sneeze and throw away used tissues in a lined trash can.

### **Nursing research**

Research is imperative to provide nurses with up to date evidence based practice. The study's findings prepared by the investigator would serve as, valuable reference for future investigators to guide clinical practice. The study findings need to be disseminated through publication, so the utilization of research findings is encouraged.

### **Nursing Administration**

Nurse administrator can utilize study findings in order to create new policies related to management of post COVID patients.

Nurse administrator can create safety measure and safe working environment for caring for infected patients like covid-19.

Nurses administrator can arrange facilities for monthly health checkup for post covid B.Sc nursing students as well as other health care professionals.

## **LIMITATIONS**

- Sample size was small due to limited time period for data collection.
- Some students were absent during data collection period.

## **RECOMMENDATIONS**

- Similar study can be undertaken on a large sample using probability sampling for
- generalization of study.

- A qualitative study can be done to explore the Long Covid Symptoms among vulnerable populations.
- A study to assess the knowledge regarding Long Covid

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