

# Efficacy of Demonstration on Covid-19 Training on Knowledge Among Final Year Nursing Students of Dr. Achal Singh Yadav Institute of Nursing and Paramedical Sciences, Lucknow

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## ABSTRACT

This study aimed to assess the effectiveness of demonstration on knowledge regarding covid-19 training among final year nursing students of Dr. Achal Singh Yadav Institute of Nursing and Paramedical Sciences, Lucknow. A quantitative research approach with quasi-experimental research design was used to select 37 final year nursing students. A self-structured knowledge questionnaire was used for assessing the knowledge regarding covid-19 training among the subjects. SPSS version 25 was used for analyzing the data. The result revealed that in pretest no sample had adequate knowledge as compared to post-test 32 students had adequate knowledge regarding covid-19 training. The paired t-test shows that the obtained p-value was 0.008, which is less than the p-value 0.05, revealing that demonstration was effective to bring changes in knowledge regarding covid-19 training among the participants. A chi-square test revealed that there is no significant association with pretest knowledge on covid-19 training and demographic variables of participant except course of study.

**KEYWORDS:** ASSESS, KNOWLEDGE, DEMONSTRATION ON COVID-19 TRAINING, FINAL YEAR NURSING STUDENTS

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## INTRODUCTION

Covid-19 pandemic has made every thing out of order and control in India results in fast spreading of infection among people which affect the health system too which bring shortage of health team members and mainly in the form of staff nurses. During such crisis government of Uttar Pradesh planned to utilize final year nursing students as a part of health team to reduce such shortage. As a part of such plan government trained faculties of nursing college from assistant professor rank for 1 day at King George medical university in the month of May 2020 and certify them as a trainer of covid-19 and hand over responsibility to them to train all the final year nursing students regarding covid-19 training so that government can utilize such trained students to prevent staff nurse shortages in esteemed government and private hospitals. As a part of such program faculties of Dr. Achal Singh Yadav institute of nursing and paramedical sciences train their final year nursing students regarding covid-19 protocol for 4 days with all needed equipments and assess their knowledge regarding covid-19 training.

## Objectives:-

1. To assess the existing knowledge regarding covid-19 training among final year Bsc. nursing students.
2. To assess the effectiveness of demonstration on covid-19 training.
3. To find out the association between pretest knowledge regarding Covid-19 training with selected demographic variables of final year Bsc. nursing students.

## Hypothesis:-

H0:- There is no significant difference between pretest knowledge and post test knowledge regarding covid-19 training among final year nursing students.

H1:- There is significant difference between pretest knowledge and post test knowledge regarding covid-19 training among final year nursing students.

H0:- There is no significant association between pretest knowledge score regarding covid-19 training with selected demographic variables of final year nursing students.

H2:- There is significant association between pretest knowledge score regarding covid-19 training with selected demographic variables of final year nursing students.

**Operational definition:-**

- Covid-19 training:-** It cover all aspect of protocol regarding Covid-19 training such as donning and doffing of PPE kit, protocol followed in isolation ward while take care of Covid-19 patient, care taken during shifting of Covid-19 patient, protocol followed during testing of person for covid-19 infection, sterilization, disinfection and discarding of article used by Covid-19 patient, care of body after death based on Covid-19 protocol.
- Final year nursing students:-** In this study final year nursing students are the students studying final year of general nursing and B.sc nursing program.

**Material and method:-**

**Research approach and design:-** Quantitative approach with quasi experimental design used.

**Setting of the study:-** The study was conducted in Dr. AchalsinghYadav institute of nursing and paramedical sciences, Lucknow.

**Study population:-** GNM 3<sup>rd</sup> year and Bsc 4<sup>th</sup> year student.

**Sample size:-** 37

**Sampling technique:-** probability simple random sampling technique used.

**Inclusion criteria:-**

- The final year nursing students of GNM and Bsc nursing.
- The nursing students who are ready to do Covid-19 duty.

**Exclusion criteria:-**

- Student who are not willing to participate in the study.

**Tool:-**

The research tool for the data collection consist of two sections:-

**Section 1:- Demographic variable**

It consist of course of study, Age in year, Gender, Previous knowledge regarding covid-19 training, Staying at, Source of information.

**Section 2:- Structured knowledge questionnaire on covid-19 training.**

It consists of 30 items for assessing knowledge among final year nursing students regarding Covid-19. Every items was multiple choice type with one correct answer carrying 1 mark remaining alternative options carry 0 marks. The minimum score is zero and maximum score is thirty. The score was graded as 0-10 inadequate knowledge, 11-20 graded as moderate knowledge and 21-30 graded as good knowledge. Reliability of the tool obtained by intra-class correlation coefficient.

**Table 1:- Results of intra-class correlation**

| Intraclass Correlation Coefficient |                                     |                         |             |                          |     |      |      |
|------------------------------------|-------------------------------------|-------------------------|-------------|--------------------------|-----|------|------|
|                                    | Intraclass Correlation <sup>b</sup> | 95% Confidence Interval |             | F Test with True Value 0 |     |      |      |
|                                    |                                     | Lower Bound             | Upper Bound | Value                    | df1 | df2  | Sig  |
| Single Measures                    | .054 <sup>a</sup>                   | .026                    | .105        | 2.889                    | 36  | 1044 | .000 |
| Average Measures                   | .630 <sup>c</sup>                   | .445                    | .779        | 2.889                    | 36  | 1044 | .000 |

Since the obtained value is 63 it is moderate degree positive correlation.

The tool was prepared in hindi and English for the convenience of the participant.

**Data collection procedure:-**

Pretest was followed by administration of demonstration on covid-19 training for 4 days by covid-19. After attending the training final year students attended the post 1 week later. Following post test data analyzed and interpreted by using SPSS software.

**Results:-**

The results of the study are as follows:-

**Table 2:- Descriptive statistics**

| Demographic data   | frequency | Percentage |
|--|-----------|------------|
| <b>1. Course of study</b>                                |           |            |
| GNM IIIrd year   | 23        | 62.2       |
| BscIVth year   | 14        | 37.8       |
| <b>2. Age in year</b>                                    |           |            |
| 19   | 1         | 2.7        |
| 20   | 5         | 13.5       |
| 21   | 14        | 37.8       |
| 22   | 9         | 24.3       |
| 23   | 8         | 21.6       |
| <b>3. Gender</b>   |           |            |
| Male   | 5         | 13.5       |
| Female   | 32        | 86.5       |
| <b>4. Previous knowledge regarding covid-19 training</b> |           |            |
| Yes  | 36        | 97.3       |
| No   | 01        | 2.7        |
| <b>5. Source of information</b>                          |           |            |
| Mass media   | 20        | 54.1       |
| Academic classes   | 06        | 16.2       |
| Online courses   | 09        | 24.3       |
| Other sources  | 02        | 5.4        |

|                      |    |      |
|----------------------|----|------|
| <b>6. Staying at</b> |    |      |
| Home                 | 18 | 48.6 |
| Hostel               | 19 | 51.4 |

**Table 3:- Frequency and percentage distribution of final year nursing students based on knowledge level regarding covid-19 training before and after demonstration on covid-19 training.**

| Knowledge score      | Frequency (%) |           |
|----------------------|---------------|-----------|
|                      | Pretest       | Post test |
| Inadequate knowledge | 19            | 00        |
| Moderate knowledge   | 18            | 05        |
| Adequate knowledge   | 00            | 32        |

Table 2:- Depicts that frequency distribution of knowledge level regarding covid-19 training among final year nursing student before and after demonstration session on covid-19 training reveal that in pretest 19 students had inadequate knowledge, 18 students had moderate knowledge and no one had adequate knowledge and in post test 32 students had adequate knowledge, 05 had moderate knowledge and no one had inadequate knowledge regarding covid-19 training.

**To find out the effectiveness of demonstration on covid-19 training by using paired t test and results are as follows:-**

Null hypothesis:- There is no significant difference between pretest and post test knowledge score regarding covid-19 training among final year nursing students.

Hypothesis 1:- There is significant difference between pretest and post test knowledge score regarding covid-19 training among final year nursing students.

| Test      | N  | MEAN  | MINIMUM SCORE | MAXIMUM SCORE | RANGE | SD    | Obtained P value | Inference |
|-----------|----|-------|---------------|---------------|-------|-------|------------------|-----------|
| Pretest   | 37 | 11    | 03            | 19            | 16    | 4.170 | 0.008            | Effective |
| Post test | 37 | 22.92 | 16            | 29            | 13    | 3.077 |                  |           |

The obtained value is 0.008 which is less than p value 0.05 hence reject the null hypothesis, so there is significant difference in regarding pretest and post test knowledge score regarding covid-19 training among final year nursing students; ie covid-19 training session was effective to improve knowledge among final year nursing students.

**To find out the association between pretest knowledge score with selected demographic variables of final year nursing students**

H0:- There is no significant association between pretest knowledge score regarding covid-19 training with selected demographic variables of final year nursing students.

H2:- there is significant association between pretest knowledge score regarding covid-19 training with selected demographic variables of final year nursing students.

| Demographic data   | frequency | Inadequate knowledge | Moderate knowledge | Adequate knowledge | Obtained p value | inference |
|--|-----------|----------------------|--------------------|--------------------|------------------|-----------|
| <b>1. Course of study</b>                                |           |                      |                    |                    | .031             | S         |
| GNM IIIrd year   | 23        | 15                   | 08                 | 00                 |                  |           |
| BscIVth year   | 14        | 04                   | 10                 | 00                 |                  |           |
| <b>2. Age in year</b>                                    |           |                      |                    |                    | .335             | NS        |
| 19   | 1         | 01                   | 00                 | 00                 |                  |           |
| 20   | 5         | 04                   | 01                 | 00                 |                  |           |
| 21   | 14        | 06                   | 08                 | 00                 |                  |           |
| 22   | 9         | 03                   | 06                 | 00                 |                  |           |
| 23   | 8         | 05                   | 03                 | 00                 |                  |           |
| <b>3. Gender</b>   |           |                      |                    |                    | .547             | NS        |
| Male   | 5         | 03                   | 02                 | 00                 |                  |           |
| Female   | 32        | 16                   | 16                 | 00                 |                  |           |
| <b>4. Previous knowledge regarding covid-19 training</b> |           |                      |                    |                    | .324             | NS        |
| Yes  | 36        | 18                   | 18                 | 00                 |                  |           |
| No   | 01        | 01                   | 00                 | 00                 |                  |           |
| <b>5. Source of information</b>                          |           |                      |                    |                    | .813             | NS        |
| Mass media   | 20        | 11                   | 09                 | 00                 |                  |           |
| Academic classes   | 06        | 02                   | 04                 | 00                 |                  |           |
| Online courses   | 09        | 05                   | 04                 | 00                 |                  |           |
| Other sources  | 02        | 01                   | 01                 | 00                 |                  |           |
| <b>6. Staying at</b>                                     |           |                      |                    |                    | .248             | NS        |
| Home   | 18        | 11                   | 07                 | 00                 |                  |           |
| Hostel   | 19        | 08                   | 11                 | 00                 |                  |           |

**Conclusion:-**

Demonstration on knowledge regarding covid-19 training among final year nursing students was effective. This study also noticed that there is no association between pretest knowledge regarding covid-19 training with their demographic variables except course of the study. This study is limited to final year nursing students of Dr. AchalsinghYadav institute of nursing and paramedical sciences, Lucknow who are willing to join covid-19 duty in selected hospital by government order during covid-19

pandemic in India. There is an immense need to implement such demonstration classes regarding covid-19 practice across all the nursing colleges to prevent such students get infected with covid-19 during their duty and they can had competency of practice.

**Reference:-**

- [1] Arogyasetu app.
- [2] Covid-19 training protocol, UP state medical faculty.

