



# EFFECTIVENESS OF STP ON KNOWLEDGE REGARDING PREVENTIVE MEASURES OF COVID-19 AMONG THE FIRST YEAR B.SC. NURSING STUDENTS AT SELECTED NURSING COLLEGE, COIMBATORE

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## ABSTRACT

**Introduction** In late December 2019, Chinese health authorities reported an outbreak of pneumonia of unknown origin in Wuhan, Hubei Province. A few days later, the genome of a novel coronavirus was released and made publicly available to the scientific community. This novel coronavirus was provisionally named 2019-nCoV, now SARS-CoV-2 according to the Coronavirus Study Group of the International Committee on Taxonomy of Viruses. SARS-CoV-2 belongs to the Coronaviridae family, Beta coronavirus genus, subgenus Sarbecovirus. Since its discovery, the virus has spread globally, causing thousands of deaths and having an enormous impact on our health systems and economies.

**Aim** effectiveness of STP of knowledge regarding prevention of COVID-19 First year B.Sc. Nursing student in Cherraan's college of nursing at Coimbatore.

**Methods** The study was conducted through a quantitative research approach. The design of the study used in the research was quasi experimental one group pre-test and post-test research design. The duration of the study was two weeks, non-probability convenience sampling was used and sample size was 50 students. **Sample** The study population was First year B.Sc. nursing students, who are studying in Cherraan's college of nursing at Coimbatore. Pre-test was conducted with a structured questionnaire, after pre-test STP was administered through PPT for 30 minutes. After the 7th day the post test was conducted with the same questionnaire for the same First year B.Sc. Nursing student.

**Result** The pre-test mean level of knowledge score was 12.88 with SD of 1.41. After the intervention, the post-test mean level of knowledge score was 13.9 with SD of 0.94. The mean difference between the pre-test and post-test was -1.02. Paired 't' test was employed and the calculated 't' was 1.01 which indicates the significant difference between pre-test and post-test level of knowledge score at 0.05 levels. Hence, this finding shows that the STP has a significant effect in increasing the level of knowledge among the First year B.Sc. nursing student regarding prevention of COVID-19.

**Discussion** Hypotheses was not proved. The chi-square test shows that there is statistically significant at  $P < 0.05$  the level of significance and there was significant no association between the pre-test level of knowledge with selected demographic variables among First year B.Sc. nursing students.

**KEY WORDS:** STP -Structured Teaching Program, Effectiveness, COVID-19,

## INTRODUCTION

The Free dictionary by Farlex stated that coronavirus is a group of morphologically similar, ether-sensitive viruses, probably RNA, causing infectious bronchitis in birds, hepatitis in mice, gastroenteritis in swine, and respiratory infections in humans.

World Health Organization, (2020) declared the recent outbreak of coronavirus disease (COVID-19) a global public health emergency and the first pandemic caused by a novel coronavirus.



**Drosten et al., (2003)** said that COVID-19 is a new strain of the virus that belongs to the same family of the pathogen that causes the severe acute respiratory syndrome (SARS) that has not been previously recognized in humans.

**Gorbalenya et al., (2020)** reported that first case of this disease in Wuhan in China in December 2019, after which it quickly spread to all Chinese provinces followed by an outbreak in other parts of the country. Initially, outbreak cases were linked to a wholesale animal market in Wuhan from where COVID-19 from an unknown animal source is suspected to cross-species barriers to infect humans. Further human to human transmission led to an exponential growth in the number of cases. Within 2 months, a steep rise in the reported cases of COVID-19 all over the world has heightened global concern forcing the countries to take urgent aggressive actions to combat its transmission. COVID-19 is now the biggest challenge and the topmost priority to address for the countries throughout the world. The virus is known as 'Severe Acute Respiratory Syndrome Coronavirus 2' and is abbreviated as SARS-CoV-2 because its RNA genome is about 82% identical to the SARS coronavirus.

**Geneva., (2019)** declared that the word COVID-19 stands for Coronavirus Disease 2019. Coronaviruses are a group of microorganisms belonging to the Corona viridae family. It infects both animals and humans. Most human coronavirus infections can cause mild common cold-like symptoms and others may cause serious illnesses like SARS (severe acute respiratory syndrome) and MERS (Middle East Respiratory Syndrome).

### Statement of the study

Effectiveness of STP on knowledge regarding preventive measures of COVID-19 among the first year B.Sc. Nursing Students at selected nursing college, Coimbatore.

### Objectives of study

- To assess the pre-test knowledge of COVID-19.
- To evaluate the effectiveness of STP on preventive measures of the COVID-19 among the first BSc Nursing Students at selected nursing college, Coimbatore.
- To find out the association between knowledge scores with selected demographic variables.

### Hypotheses

- **H1** There is significant improvement between pre and post level of knowledge regarding prevention of COVID-19 among the First B.Sc Nursing Students at selected nursing college, Coimbatore.
- **H2** There is significant association between the pre-test level of knowledge regarding prevention of COVID-19 with selected demographic variables among the First B.Sc Nursing Students at selected nursing college.

### Assumption

The study assumes that

- STP is an accepted teaching strategy.
- Nursing student fraternity may have some knowledge regarding COVID-19.

### Variables

#### a) Independent variables

In this study the independent variable was a structured teaching program (STP) on knowledge regarding preventive measures of COVID-19.

#### b) Dependent variables

In this study the dependent variable was knowledge among the first BSc Nursing students at selected nursing colleges regarding prevention of COVID-19.

### Delimitation:

- Students who are willing to participate in the study.
- Students who are able to read and write English

### Projected outcome

This study involves the knowledge regarding prevention of COVID-19 among the first B.Sc Nursing Students at selected nursing colleges that helped the frequent effect of the COVID-19. It is very important that student have adequate knowledge regarding prevention of COVID-19. If STP has a positive effect. It can be practiced by all the student.

## RESEARCH METHODOLOGY

**Denise F. Polit (2013)** Research methodology involves the system procedure by which the researcher starts from the identification for the problem to its final conclusion. It involves steps, procedure and strategies for gathering and analysing data in a research investigation.



### Research Approach

The research approach for this study was Quantitative research approach.

### Research design

The research design for this study adopted was Quasi - experimental one group pre-test and post-test research design for this study.

GROUP	PRE-TEST	STP	POST TEST
Among first year B.Sc nursing students	O1	X	O2

**O1** - Assess the level of pre-test knowledge regarding prevention of COVID-19

**X** - STP regarding prevention of COVID-19.

**O2** - Assess the level of post-test knowledge regarding prevention of COVID-19

### Research variables

#### a) Independent variables

In this study STP on knowledge regarding prevention of COVID-19 was the independent variables.

#### b) Dependent variables

In this study the dependent variable is knowledge of first year B.Sc. nursing students regarding prevention of COVID-19 is the independence variable.

### Setting of the study

The setting was chosen on the basis of the availability of samples. The study was conducted at First year B.Sc. nursing student in Cherraaan's college of nursing at Coimbatore. The First year B.Sc. nursing student with the strength of 50 students were undergoing testing the level of knowledge regarding the prevention of COVID-19

### Population

The population for the present study was 50 first year B.Sc. nursing students.

#### a) Target population

The target population for the study comprised of first year B.Sc. nursing students studying in Cherraaan's college of nursing at Coimbatore.

#### b) Accessible population

The accessible population of the study comprised first year B.Sc. nursing students studying in Cherraaan's college of nursing at Coimbatore and who were in access at time of data collection

### Sample

First year B.Sc. nursing students studying in Cherraaan's college of nursing at Coimbatore.

### Sample size

The sample size for the study comprised of 50 first year B.Sc. nursing students studying in Cherraaan's college of nursing at Coimbatore.

### Sampling technique

In this study, the sample technique chosen was the non-probability convenience sampling technique.

### Criteria for sample selection

Sample criteria involve the cases that meet some predetermined criteria importance. The criteria for sample selection are mainly depicted under two headings, which comprises the inclusion and exclusion criteria.

#### Inclusion Criteria

- First year B.Sc. nursing students studying in Cherraaan's college of nursing at Coimbatore.
- Students who were present during the time of data collection.
- Who given consent to participate in this study.

#### Exclusion Criteria

- The students who were not able to understand and speak English language.

**Development and descriptive of the tool****Development of the tool**

A Structural questionnaire was developed on the basis of objective of the study. Tool was developed after exclusive review of literature from various text books, journals, internet search and discussion and guidance from the expert in the field of nursing, and medical expert. The tool was developed in English.

**Descriptive of the tool**

The tool of the study has two sections.

**SECTION A Demographic variables of First year B.Sc. nursing students**

Consist background variables such as age, educational status, occupational status of parents, monthly income of the family, pet animals, source of knowledge and area of living condition.

**SECTION B Structural questionnaire**

Questionnaire regarding knowledge on prevention of COVID 19 among first year B.Sc. nursing students. It comprised of 16 multiple choice question. Each correct answer was given a score of one and each wrong answer a score of 0. Total possible score was 16. The level of knowledge was categorized as follows.

- 1-4 inadequate knowledge
- 5- 8 Moderately adequate knowledge
- 9-16 Adequate knowledge

**Description of intervention of the study**

The STP was developed based on the objectives, review of literature, sample size and experts' opinion. The STP was titled as prevention of COVID 19 infections among first year B.Sc. nursing students It consists of introduction, definition, causes, symptoms, management, prevention measures and home remedies for prevention of COVID 19 infections. The STP was developed in English. PPT were used in STP.

**Ethical consideration**

The study was approved by the institutional research Chairman and Ethical committee which was held at Cherraan's college of Nursing. An Ethical clearance was obtained from college and consent was obtained from the first year B.Sc. nursing students in Cherraan's college of nursing at Coimbatore.

**Confidentiality**

The researcher-maintained confidentiality of the data provided by the study.

**validity and reliability of the tool****Content validity**

The content validity of the tool was established by experts comprised of five nursing expertise and medical experts. The experts were requested to give their opinion and suggestion regarding the relevance of the tool for further modification to improve the clarity and content of items and modification was done accordingly. The tool was finalized by the investigator Reliability

**Reliability**

Reality of structured questionnaire was elicited by using test-retest method. The "r" value was computed by Karl's Pearson's correlation coefficient formula and it was found to be  $r=0.95$  which indicated that the tool was absolutely reliable.

**Data collection procedure****Method of data collection**

Prior to the collection of data, written permission was obtained from the principal in charge in Cherraan's college of nursing at Coimbatore. Investigators personally visited each respondent. introduced our self to the students and explained the purpose of the study and ascertained the willingness of the students and they were assured anonymity and confidentiality of the information provided by them

Pre-test was conducted for the students by administering structured questionnaire to assess the knowledge on Prevention of COVID-19 among students. The data was collected from 50 students. Each students took 30 minutes to fill the questionnaire, after the pre-test, STP on selected aspects of prevention of COVID-19 infections was administered to the students through verbal explanation and explaining with flash cards on prevention of COVID-19 for the period of 30 minutes.

Evaluation of STP was conducted by post-test, after 7 days of implementation of STP. Post-test was taken from the students by using the same structured questionnaire.

**Intervention protocol**

Place: Cherraan's college of nursing

Intervention tool: STP

Discussion duration: 30 Minutes

Frequency: One time teaching

AV aids: PPT

**Descriptive statistics**

Frequency and percentage distribution was used to assess the demographic variables of students.

Frequency and percentage distribution was used to assess the pre-test level of knowledge regarding prevention of COVID-19 among students.

Frequency and percentage distribution was used to assess the post-test level of knowledge regarding prevention of COVID-19 among students.

Mean and standard deviation was used to compare the pre and post-test level of knowledge regarding prevention of COVID-19 among students.

**Inferential statistics**

- Paired "t" test used to compare the pre and post-test level of knowledge regarding prevention of COVID-19 among students.
- Chi square test was used to associate the pre and post-test level of knowledge score and their selected demographic variables.

**DATA ANALYSIS AND INTERPRETATION**

This chapter deals with the quantitative analysis and interpretation of collected data from 50 students. The data collected was organized, tabulated and analysed according to the objectives. The findings based on the descriptive and inferential statistical analysis are presented under the following sections.

**Presentation of data**

The findings of the study were grouped and analysed under the following section:

- **Section A:** Description of demographic variables of students.
- **Section B:** Assessment of pre-test level of knowledge regarding prevention of COVID-19 among students.
- **Section C:** Effectiveness of STP on level of knowledge regarding prevention of COVID-19 among students.
- **Section D:** Association between pre-test level of knowledge regarding prevention of COVID-19 among students with selected demographic variables.

**Section A: Description of demographic variables of students who are studying in Cherraan's college of nursing.**

**Table 4.1 Frequency and percentage description of demographic variables of students who are studying in Cherraan's college of nursing. (N=50)**

SL.NO	Demographic Variables	Frequency	%
1.	Number of family members	1	0
		2	1
		3	6
		Over 4	43
2.	Age	15-25 Years	50
		25-30 Years	0
		30-45 Years	0
		45-55 Years	0
3.	Educational qualification	Graduate	5
		Under graduate	4
		Illiterate	0
		Study	41
4.	Industry	Self-employee	1
		Private employee	3
		Government	0
		Student	46
5.	Monthly family income	Less than 10,000	25
		10,001-20,000	13

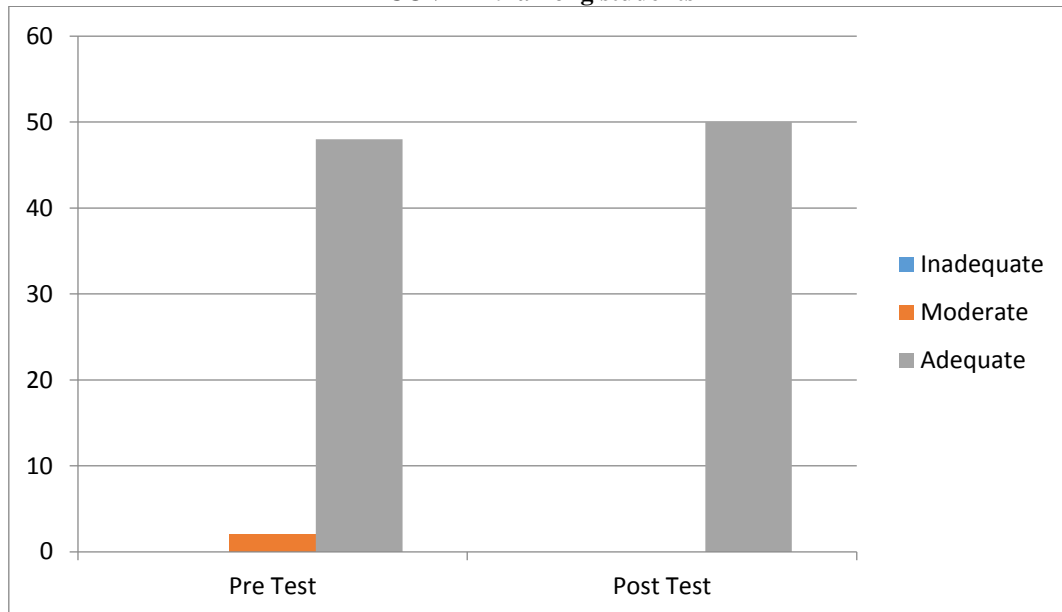


		Over 20,001	12	24
6.	Family type	Separate family	39	78
		Joint family	11	22
7.	Living status	The area where the crowd is high	0	0
		Crowded area	5	10
		Normal living area	45	90
8.	Health care services available	Primary health centre	15	30
		Sub-centre	5	10
		Hospital	30	60
9.	Do you have pet animals?	Yes	18	36
		No	32	64
10.	Previous exposure to source of information regarding COVID-19	Newspaper/Magazine/Posters	6	12
		Radio/TV/Internet	31	62
		Family/Friends/Relatives	11	22
		Health services	2	4

The above table 4.1 shows that in the study group, majority of them 50 (100%) were in the group of 15-25 years, 43 (86%) had over 4 family members, 5 (10%) were graduate, 25 (50%) had Rs. Less than 10,000 as the monthly income of their family, 39 (78%) were living in separate family, 45 (90%) were living in normal living area, 30 (60%) had hospital as their health care service, 32 (64%) had no pet animals and 31 (62%) was exposed to source of information regarding COVID-19 through Radio//TV/Internet.

**Section B : Assessment of pre-test level of knowledge regarding prevention of COVID-19 among students**

**Figure 4.1 Frequency and prevention distribution of pre-test and post-test level of knowledge regarding prevention of COVID-19 among students**

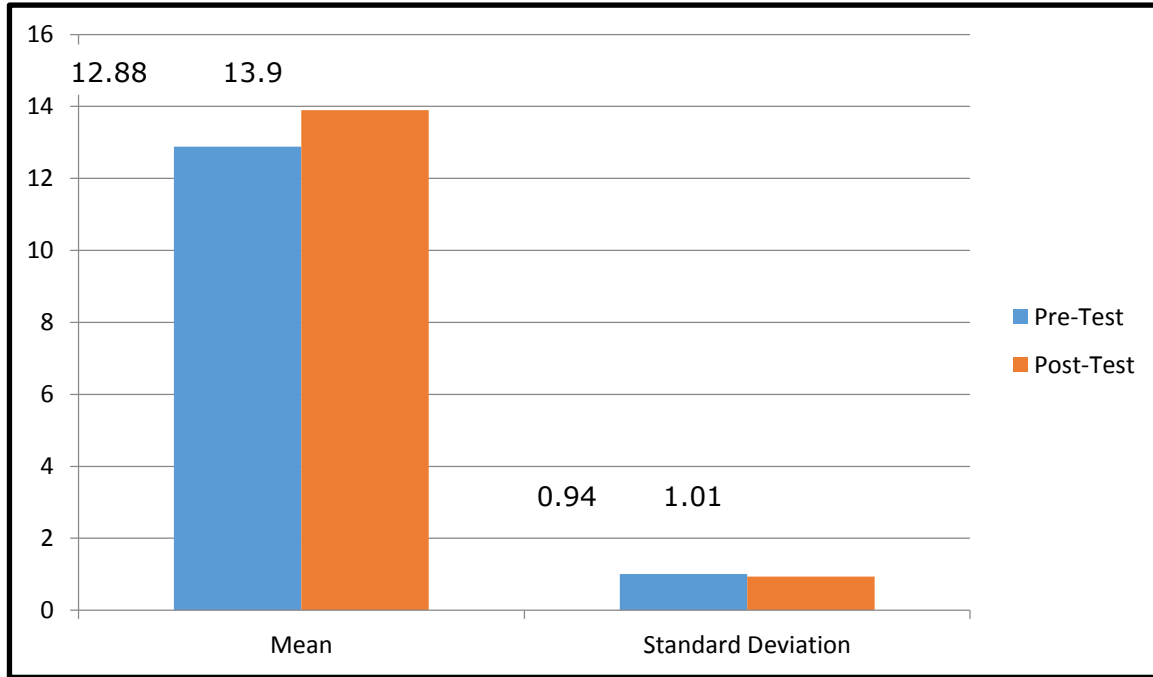


The above figure shows that in the pre-test, majority 48 (96%) of students had adequate knowledge, 2 (4%) had moderate knowledge and in the post test, majority 50 (100%) of students had adequate knowledge.



**Section C Effectiveness of STP on level of knowledge regarding prevention of COVID-19 among students.**

**Figure 4.2 Comparison of pre-test and post-test level of knowledge scores regarding prevention of COVID-19 among students**



The above Figure 4.3 shows that the pre-test mean level of knowledge score was 12.88 with SD of 0.94. After the intervention, the post-test mean level of knowledge score was 13.9 with SD of 1.01. The mean difference between the pre-test and post-test was -1.02. Paired t test was employed and the calculated t value was 1.01 which indicates the significant difference between pre-test and post-test level of knowledge score at 0.05 level. Hence, this finding shows that the STP has a significance effect in increasing the level of knowledge among knowledge regarding prevention of COVID-19

**Section D: Association between pre-test level of knowledge regarding prevention of COVID-19 among students with selected demographic variables**

**Table 4.2 Association between pre-test level of knowledge regarding prevention of COVID-19 among students with selected demographic variables.**

N=50

SI NO	Demographic variables		Level of knowledge						Total	Chi square test
			Inadequate		Moderate		Adequate			
			n	%	n	%	n	%		
1.	Family member	1	0	0	0	0	0	0	X <sup>2</sup> = 0 df=6 NS	
		2	0	0	0	0	1	2		
		3	0	0	0	0	6	12		
		Over 4	0	0	0	0	43	86		
2.	Age	15-25 Years	0	0	0	0	50	50	X <sup>2</sup> = 0 df=6 NS	
		25-30 Years	0	0	0	0	0	0		
		30-45 Years	0	0	0	0	0	0		
		45-55 Years	0	0	0	0	0	0		
3.	Educational	Graduate	0	0	0	0	5	10	X <sup>2</sup> = 0 df=6 NS	
		Under graduate	0	0	0	0	4	8		
		Illiterate	0	0	0	0	0	0		



	qualification	Study	0	0	0	0	41	82	41	
4.	Industry	Self-employee	0	0	0	0	1	2	1	$X^2 = 0$ df=6 NS
		Private employee	0	0	0	0	3	6	3	
		Government	0	0	0	0	0	0	0	
		Student	0	0	0	0	46	92	46	
5.	Monthly family income	Less than 10,000	0	0	0	0	25	50	25	$X^2 = 0$ df=4 NS
		10,001-20,000	0	0	0	0	13	26	13	
		Over 20,001	0	0	0	0	12	24	12	
6.	Family type	Separate family	0	0	0	0	39	78	39	$X^2 = 0$ df=2 NS
		Joint family	0	0	0	0	11	22	11	
7.	Living status	The area where the crowd is high	0	0	0	0	0	0	0	$X^2 = 0$ df=4 NS
		Crowded area	0	0	0	0	5	10	5	
		Normal living area	0	0	0	0	45	90	45	
8.	There are health services	Primary health care	0	0	0	0	15	30	15	$X^2 = 0$ df=4 NS
		Sub-center	0	0	0	0	5	10	5	
		Hospital	0	0	0	0	30	60	30	
9.	Do you have pet in your home?	Yes	0	0	0	0	18	36	18	$X^2 = 0$ df=2 NS
		No	0	0	0	0	32	64	32	
10.	Previous exposure to source of information regarding COVID-19	Newspaper/Magazine /Posters	0	0	0	0	6	12	6	$X^2 = 0$ df=6 NS
		Radio/TV/Internet	0	0	0	0	31	62	31	
		Family/Friends/Relatives	0	0	0	0	11	22	11	
		Health services	0	0	0	0	2	4	2	

**S\*:** Significant at  $p < 0.05$  level; **NS:** Non significant;  $X^2$ : Chi-square value

The above table 4.2 shows that at a Chi square value, Family members  $X^2 = 0$  ( $p < 0.05$ ), Age  $X^2 = 0$  ( $p < 0.05$ ), educational qualification  $X^2 = 0$  ( $p < 0.05$ ), industry  $X^2 = 0$  ( $p < 0.05$ ), Monthly family income  $X^2 = 0$  ( $p < 0.05$ ), Family type  $X^2 = 0$  ( $p < 0.05$ ), living status  $X^2 = 0$  ( $p < 0.05$ ), there are health services  $X^2 = 0$  ( $p < 0.05$ ), do you have pet in your home  $X^2 = 0$  ( $p < 0.05$ ), previous exposure to source of information regarding COVID-19 has negative association.

## DISCUSSION

This chapter discusses the main findings from the result of the present study. For this study the data was obtained regarding knowledge on COVID-19 in Cherran's college of nursing students at Coimbatore. The research has undertaken the study entitled assess the knowledge regarding COVID-19 and its prevention among first year B.Sc nursing students in Cherran's college of nursing at Coimbatore

The purpose of the study was to assess the STP on knowledge regarding prevention of COVID-19 among first year B.Sc nursing students in Cherran's college of nursing at Coimbatore. The people for the study was 50 students. STP was given nearly 30 minutes. Two week after STP post test was conducted to evaluate the effectiveness of teaching program.

The result of the study was based on the statistical analysis. The effectiveness of STP was assessed by using paired 't' test. Chi-square was used to find the association between the level of knowledge with selected demographic and obstetrical variables. The result were formulated according to the started objectives.

### Objectives of the study

- To assess the pre test knowledge of the COVID-19.
- To evaluate the effectiveness of the STP on preventive measures of the COVID-19 among the first year B.Sc nursing students in Cherran's college of nursing at Coimbatore.
- To find out the association between knowledge scores with selected demographic variables.



**The finding of the study based on the objectives are****The first objective was to assess the pre test knowledge of the COVID-19.**

The Percentage distribution of students according to demographic variables, majority of them 50 (100%) were in the group of 15-25 years, 43 (86%) had over 4 family members, 5 (10%) were graduate, 25 (50%) had Rs. Less than 10,000 as the monthly income of their family, 39 (78%) were living in separate family, 45 (90%) were living in normal living area, 30 (60%) had hospital as their health care service, 32 (64%) had no pet animals and 31 (62%) was exposed to source of information regarding COVID-19 through Radio//TV/Internet.

**The second objective was to evaluate the effectiveness of the STP on preventive measures of the COVID-19 among first year B.Sc nursing students at selected nursing college, Coimbatore**

Comparison of pre test mean level of knowledge score was 12.88 with SD of 1.41. After the intervention, the post test mean level of knowledge score was 13.9 with SD of 0.94. The mean different between the pre test and post test was - 1.02. Paired 't' test was employed and the calculated 't' was 1.01 which indicate the significant difference between pre test and post test level of knowledge score at 0.01 levels. Hence, this findings shows that the STP has a significant effect in increasing the level of knowledge among the students regarding prevention of COVID-19.

**The third objective was to find out the association between knowledge scores with selected demographic variables.**

The result shows that Family members  $X^2 = 0$  ( $p < 0.05$ ), Age  $X^2 = 0$  ( $p < 0.05$ ), educational qualification  $X^2 = 0$  ( $p < 0.05$ ), industry  $X^2 = 0$  ( $p < 0.05$ ), Monthly family income  $X^2 = 0$  ( $p < 0.05$ ), Family type  $X^2 = 0$  ( $p < 0.05$ ), living status  $X^2 = 0$  ( $p < 0.05$ ), there are health services  $X^2 = 0$  ( $p < 0.05$ ), do you have pet in your home  $X^2 = 0$  ( $p < 0.05$ ), previous exposure to source of information regarding COVID-19 has negative association.

**Hypotheses**

**H1** There is significant improvement between pre and post level of knowledge regarding prevention of COVID-19 among students.

From the findings of the present study it was concluded that the STP on prevention of COVID-19 improves the knowledge of students who participated in the study. Thus the hypothesis was not proved statistically.

**H2** There be significant association between the pre test level of knowledge regarding prevention of COVID-19 with selected demographic variables among students.

There was statistical no association between of pre test level of knowledge regarding prevention of COVID-19 among students with their selected demographic variables such as family member, age, educational qualification, monthly income of the family, area of living condition.

**SUMMARY OF FINDING, CONCLUSION, NURSING IMPLICATION, NURSING ADMINISTRATION, NURSING EDUCATION, NURSING RESEARCH AND RECOMMEDATIONS**

This chapter deals with summary of the finding conclusion, nursing implication, nursing administration, nursing education, nursing research and recommendation of the study.

**Summary of the finding**

The primary aim of the present study was to assess the effectiveness of structural teaching program on knowledge regarding prevention of COVID-19 among first year B.Sc nursing students in Cherraan's college of nursing at Coimbatore.

**Objectives of the study**

- To assess the pre test knowledge of the COVID-19.
- To evaluate the effectiveness of the STP on preventive measures of the COVID-19 among the first year B.Sc nursing students in Cherraan's college of nursing at Coimbatore.
- To find out the association between knowledge scores with selected demographic variables.

**Hypotheses of the study**

- H1 There is significant improvement between pre and post level of knowledge regarding prevention of COVID-19 among students.
- H2 There be significant association between the pre test level of knowledge regarding prevention of COVID-19 with selected demographic variables among students.

**Methods of the study**

- Quasi experimental research design was adopted for this study. There are 50 first year B.Sc nursing students in Cherraan's college of nursing at Coimbatore and non probability convenience sampling technique was used to collect the data. The data was collected with the help of structured questionnaire to assess level of the knowledge regarding prevention of COVID-19 which consist of 16 questionnaires and demographic variable of village people.



- For conducting pilot study, the investigator administered structured questionnaire to assess the level of knowledge level of village people at selected college in Coimbatore.
- The final study was conducted in the month of February to March 2022. By Non probability convenience sampling technique the data was collected from 50 village people. Pre test was conducted for the students by administering structured questionnaire to assess the knowledge on prevention of COVID-19 among village people. After the pre test, STP on selected aspects of prevention of COVID-19 was preformed to the village people through verbal explanation and explaining with flash cards on prevention of COVID-19 for the period of 30 minutes. Evaluation of STP was conducted by post test, after 1 days of implementation of STP a post test was conducted from the same people by using the same structured questionnaire.

#### Significant of findings are as follows

- Percentage distribution of students according to demographic variables, majority of them 50 (100%) were in the group of 15-25 years, 43 (86%) had over 4 family members, 5 (10%) were graduate, 25 (50%) had Rs. Less than 10,000 as the monthly income of their family, 39 (78%) were living in separate family, 45 (90%) were living in normal living area, 30 (60%) had hospital as their health care service, 32 (64%) had no pet animals and 31 (62%) was exposed to source of information regarding COVID-19 through Radio//TV/Internet.
- In the pre-test, majority 48 (96%) of students had adequate knowledge, 2 (4%) had moderate knowledge.
- In the pre-test, majority 50 (100%) of village people had adequate knowledge.
- Chi square value, Family members  $X^2=0$  ( $p<0.05$ ), Age  $X^2=0$  ( $p<0.05$ ), educational qualification  $X^2=0$  ( $p<0.05$ ), industry  $X^2=0$  ( $p<0.05$ ), Monthly family income  $X^2=0$  ( $p<0.05$ ), Family type  $X^2=0$  ( $p<0.05$ ), living status  $X^2=0$  ( $p<0.05$ ), there are health services  $X^2=0$  ( $p<0.05$ ), do you have pet in your home  $X^2=0$  ( $p<0.05$ ), previous exposure to source of information regarding COVID-19 has negative association.

#### Conclusion

It was found that the main conclusion of the present study status that in the pre-test, most of the people had adequate knowledge at COVID-19. After STP was highly effective. The study result shows that there is significant association between the level of knowledge with their selected demographic variables such as educational qualification of peoples, monthly income of the family, area of living condition, does your child get frequent COVID-19. These the variables calculated by chi square test at  $p<0.05$ . therefore, the investigator was proved the hypothesis is accepted for this study.

#### Nursing implication

The present study has got implications in the field of nursing, nursing administration, nursing research and nursing service. The nurse as a health care provider should be able to make significant contributions to maintain adequate knowledge regarding prevention of COVID -19

#### Nursing administration

- Nurse administration should motivation the subordinates to participate in various programs and improve their knowledge and practice, with regard to prevention of COVID -19.
- Nurse administration can organize seminars on prevention of COVID-19.
- Nurse administration can motivation the nurses to organize health camps program to urban and rural people at least twice in a month, to motivate the students on prevention COVID-19.
- Nurse administration can create awareness among students regarding prevention of COVID-19.
- Nurse administration can encourage the nurses to conduct the health awareness program and regular health visits to the urban and rural students to insist to prevention COVID-19.

#### Nursing education

- Health education should be imparted regularly based on evidence based on evidence-based practice in all nursing curriculum.
- The faculty members in nursing education can motivate the student to arrange health program to general population regarding prevention of COVID-19.
- Nursing curriculum should prepare nurses motivate the people to improve the knowledge, practice and attitude regarding prevention of COVID-19.

#### Nursing research

- Every nurse should be proficient and confident enough to provide care on students. The deficiencies in the knowledge among nurse can result in poor quality of life of patients, the funding of the present study can from a basis for the future research. Nurses must be motivation to conduct research related to the enhancement of knowledge on prevention of COVID-19.



## Recommendations

Based on the research finding the recommendations are as follows.

- Similar study can be conducted for a large sample and different setting.
- Studies may be conducted to evaluate the effective nurse of STP versus other methods of teaching on prevention of COVID-19.
- A similar study may be conducted on a large student for wider generalization.
- A study can be conducted among different group of people.
- Similar study can be conducted by using experimental and control group.
- Educational program on prevention of COVID-19 can be conducted for the students.

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