AN EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING PREVENTION AND MANAGEMENT OF COVID-19 AMONG NURSING STUDENTS, AT SELECTED NURSING COLLEGE OF BAREILLY, U.P.

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Abstract-

The aims of this study are to enhance the knowledge and attitude regarding prevention and management of COVID-19 among nursing students. The objective of study was to assess the level of knowledge and attitude regarding prevention and management of COVID-19 among nursing students, to assess the effectiveness of structured teaching programme on knowledge and attitude regarding prevention and management of COVID-19 among nursing students, to find the association between Pre-test level of knowledge and attitude regarding prevention and management of COVID-19 among nursing students with their selected demographic variables. A multiple-choice questionnaire was completed by 50 nursing students studying at Rohilkhand School of Nursing, Bareilly. The sample was selected by using the Non-Probability Convenient Sampling method. The data was collected by using multiple choice questionnaires. The result of study was According to age in 32(62.0%) of them belong to the age group between 17-19 years, 13(26.0%) of them belong to the age group between 20- 22 years, 4(8%) of them belong to the age group between 23-25 years, and 1(2.0%) of them belong to the age group between 25 years above. Regarding gender of nursing students 12(24.0%) were male and 38(76.0%) were female. Revealed the participants of education 50(100%) in Diploma, (0%) in graduate, (0%) in post graduate, and (0%) in other. Regarding the religion 1(2.0%) were Sikh, 44(88.0%) were Hindu, 1(2.0%) were christen, 4(8.0%), and (0%) were other religion. Regarding the participants of living area among the 39(78.0%) in rural area, 11 (22.0 %) urban in area. Distribution of nursing students to any previous knowledge on prevention and management of COVID-19, 46(92%) were yes, and 4(8%) were no. (38) In Distribution of nursing students, if we analyze them according to their sources of information among the 36(72%) were social media, 4(8.0%) were family and friends, 3(6%) were class room teaching and 7(14%) were other information about COVID-19.Interpreted the mean score of knowledge in pre-test was 25.86 and post-test was 36.08, standard deviation in pre-test was 2.82 and post test 3.43 and mean difference score was 10.22. Mean score of attitude in pre-test was 53.08 and post-test was 63.00, standard deviation in pre-test was 4.94 and post test 5.89 and mean difference score was 9.92.

Keywords: Covid-19, knowledge, attitude, Nursing Students, Structured Teaching Programme

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INTRODUCTION

Corona viruses are not dangerous. In early 2020, after a December 2019 outbreak in China, the world health organization identified SARS-C0V-2 corona virus. Corona virus outbreak rapidly spread around the world.[1] Corona viruses are a family of virus knows for containing strains that cause deadly diseases in beast and birds. In human they are usually spread through airborne infection of fluid originate by infected persons.[2] All corona viruses are zoonotic. Corona viruses are named given as for the spikes protruding on their surface, appear like a crown corona.[3] Corona virus disease is defined as illness caused by a novel Corona virus called by a novel Corona virus called severe acute respiratory syndrome Corona virus 2, which was identified amid an outbreak of respiratory illness cases in Wuhan city, Hubei province, China.[4] It was first identified in December 2019.[5]

The virus can be transmitted from an infected person's nose or mouth in very tiny liquid matter when they sneeze, cough sing, speak or breath.[6] The main symptoms are cough, difficulty breathing, fever, muscle aches, deficit of taste, anosmia, fatigue, headache, nose congestion, diarrhea, vomiting, tiredness, and wheezing. Symptoms may happen 2-14 days after showing to the virus.[7] Certain medical conditions that may high risk of serious illness from corona virus such as cancer, high blood pressure, overweight, smoking, kidney disease, diabetes, cardiac diseases, dementia, down syndrome, substance use disorder, etc. [8]

Management for corona virus vary depending on the severity of sign and symptoms. It includes: supplemental oxygen, antiviral treatments may decrease the dangers of death in some patients with corona virus, Mechanical ventilation.[9] Preventive methods of covid-19 are staying 6 feet distance away from other people. Stay self-isolated at home if we are feel sick with symptoms or changes in body. Clean and disinfect the touched surfaces.[10] Wash hands for at minimum 20 seconds before preparing food, eating, after using the washroom, after come in close communication with person who has a cold, after wiping nose. Use sanitizer when you can't wash your hands properly, rewash your hands many times a day especially touching phone, laptop etc. [9][10]

According to world meters, Hopkins, (2020) the disease has spread to over 200 countries and territories, and it affected more than 25 million people with more than 800,000 deaths worldwide.[11]

According to united state (2020) most affected by this outbreak are the United States (9,208,876) cases of Covid-19.[12]

MATERIAL AND METHODS

Research Design

A pre-experimental study was used in the study.

Variables

A variable is a measurable or potentially measurable component of an object or events that fluctuate in quantity or quality or that may be different in quantity or quality from one individual object or event to another individual object or event of the same general class. The characteristics, attributes or phenomena under study are called variables.[13]

Independent Variables: Variables are purposely manipulated by the researcher. In this present study the independent variable is structure teaching programme on knowledge regarding prevention and management of covid-19.

Dependent variables: Variables that change as the independent variable is manipulated by the researcher. In this present study the dependent variable is knowledge and attitude of nursing students regarding prevention and management of covid-19.

Demographic variables: The characteristics and attributes of the study subjects are considered demographic variables. It includes age of the student, gender, education, religion, living area, any previous knowledge of Covid- 19, source of information.

Setting

Rohilkhand School of Nursing, Bareilly was the setting of the study.

Sample

Sample of study was Nursing Students studying in Rohilkhand School of Nursing, Bareilly.

Sampling Method

Non-Probability Convenient Sampling was used in the study.

Sample Size

Finally, a total of 50 Nursing Students were included in this study.

SAMPLE CRITERIA

Inclusive criteria

- Students who will be available at the time of study.
- Students who will be willing to participate in this research study.

- Student who will be pursuing GNM Nursing.

Exclusive criteria

- Student who be pursuing B.SC and M.SC nursing.

DEVELOPMENT OF THE TOOLS

Tool was prepared based on the objectives of the present study. A plan self-structured knowledge questionnaire was selected to evaluate the knowledge of the nursing students regarding prevention and management of Covid -19.

The following steps carried out in preparing the tools are-

1. An extensive review of literature
2. Preparation of blue print
3. Expert's opinion from department of Medical Surgical Nursing

DESCRIPTION OF THE TOOLS

The tool consists of two sections:

Section A- Demographic Performa

Demographic data consist of 7 items includes age of the student, gender, education, religion, living area, any previous knowledge of Covid-19, source of information.

Section B- Structured knowledge questionnaire

Consist of 40 multiple choice questions on knowledge which includes definition, causes signs and symptoms, management, prevention and complication regarding Covid-19.

SECTION A: DATA FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES

Table 1.1: Frequency and Distribution of Nursing Students in their selected demographic variables on prevention and management of COVID-19

N=50

S. No.	Demographic Variable	Frequency	Percentage
1.	Age in years		
	a) 17-19 years	32	64.0
	b) 20-22 years	13	26.0
	c) 23-25 years	4	8.0
	d) 25 years above	1	2.0
2.	Gender		
	a) Male	12	24.0
	b) Female	38	76.0
3.	Education		
	a) Diploma	50	100.0
	b) Graduate	-	-
	c) Post Graduate	-	-
	d) Other	-	-
4.	Religion		
	a) Sikh	1	2.0
	b) Hindu	44	88.0
	c) Christian	1	2.0
	d) Muslim	4	8.0
	e) Other	-	-
5.	Living Area		
	a) Rural	39	78.0
	b) Urban	11	22.0
6.	Any previous knowledge of COVID-19		
	a) Yes	46	92.0
	b) No	4	8.0
7.	Source of Information		
	a) Social Media	36	72.0
	b) Family and Friends	4	8.0
	c) Class room teaching	3	6.0
	d) Other	7	14.0

SECTION B: DATA ON LEVEL OF KNOWLEDGE AND ATTITUDE REGARDING PREVENTION AND MANAGEMENT OF COVID-19 AMONG NURSING STUDENTS

Table 1.2: Frequency and distribution of pre-test and post-test level of knowledge regarding prevention and management of Covid-19 among nursing student

N=50

S.No	Level of Knowledge	Pre test		Post test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1.	Inadequate Knowledge (0-12)	0	0%	0%	0%
2.	Moderate Knowledge (13-26)	31	62%	4	8%
3.	Adequate knowledge (27-40)	19	38%	46	92%

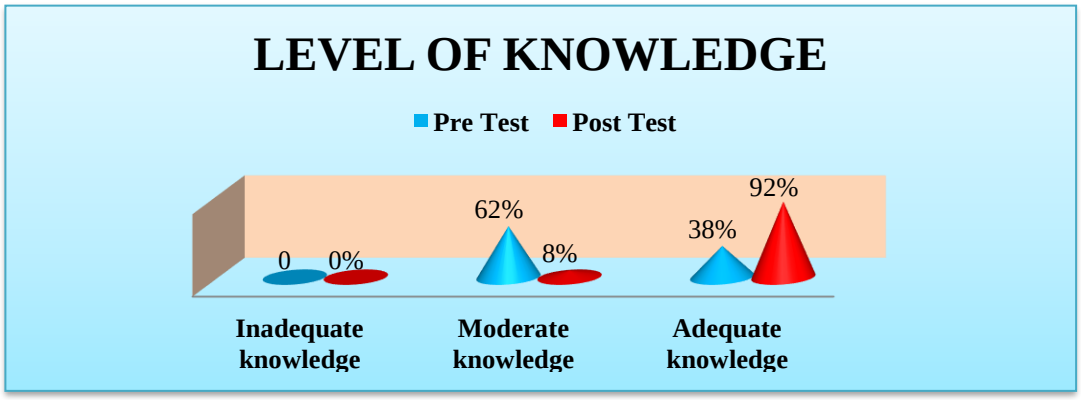

Figure 1: Percentage distribution on Pre-test and Post-test score of Knowledge regarding prevention and management of COVID-19.

Table 1.3: Frequency and distribution of pre-test and post-test level of attitude regarding prevention and management of Covid-19 among nursing student

N=50

S.No	Level of attitude	Pre test		Post test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1.	Inadequate Attitude (0-25)	0	0%	0%	0%
2.	Moderate Attitude (26-50)	15	30%	5	10%
3.	Adequate Attitude (51-75)	35	70%	45	90%

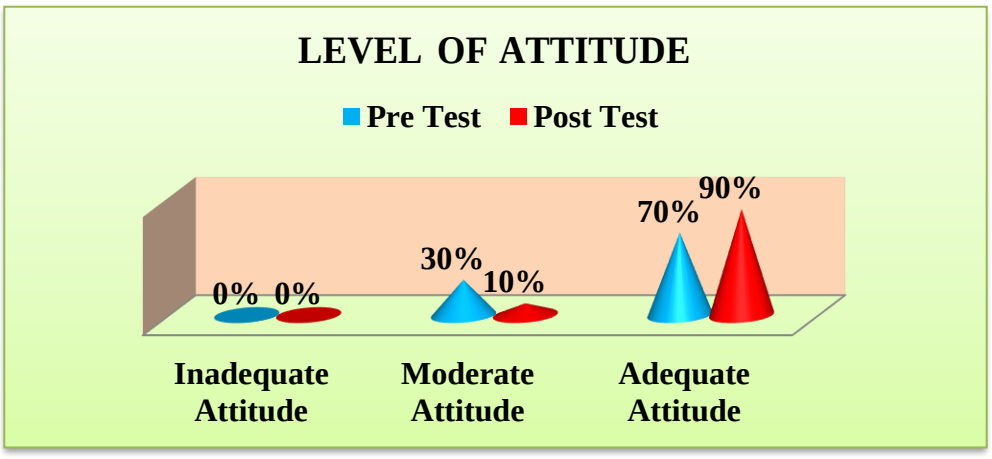

Figure 2: Percentage distribution on Pre-test and Post-test score of Attitude regarding prevention and management of COVID-19

RESULT

According to age in 32(62.0%) of them belong to the age group between 17-19 years, 13(26.0%) of them belong to the age group between 20- 22 years, 4(8%) of them belong to the age group between 23-25 years, and 1(2.0%) of them belong to the age group between 25 years above. Regarding gender of nursing students 12(24.0%) were male and 38(76.0%) were female. Revealed the participants of education 50(100%) in Diploma, (0%) in graduate, (0%) in post graduate, and (0%) in other. Regarding the religion 1(2.0%) were Sikh, 44(88.0%) were Hindu, 1(2.0%) were christen, 4(8.0%), and (0%) were other religion. Regarding the participants of living area among the 39(78.0%) in rural area, 11 (22.0 %) urban in area. Distribution of nursing students to any previous knowledge on prevention and management of COVID-19, 46(92%) were yes, and 4(8%) were no. [38] In Distribution of nursing students, if we analyze them according to their sources of information among the 36(72%) were social media, 4(8.0%) were family and friends, 3(6%) were class room teaching and 7(14%) were other information about COVID-19.

SECTION C: Data on Effectiveness Of Structured Teaching Programme On Knowledge And Attitude Regarding Prevention And Management Of Covid-19

Table 1.4: Mean, standard deviation, mean deviation and t-value of pre-test and post-test on level of knowledge regarding prevention and management of COVID-19

N=50

S.No	Level of Knowledge	Mean	Standard deviation	Mean Difference	t-Value
1.	Pre- test	25.86	2.82	10.22	17.16
2.	Post-test	36.08	3.43		

T ($_{(49)}$) =2.01. p<0.05

Significance

Mean score of knowledge in pre-test was 25.86 and post-test was 36.08, standard deviation in pre-test was 2.82 and post test 3.43 and mean difference score was 10.22. The obtained „t" value is 17.16. Which is significant at p<0.05 level.

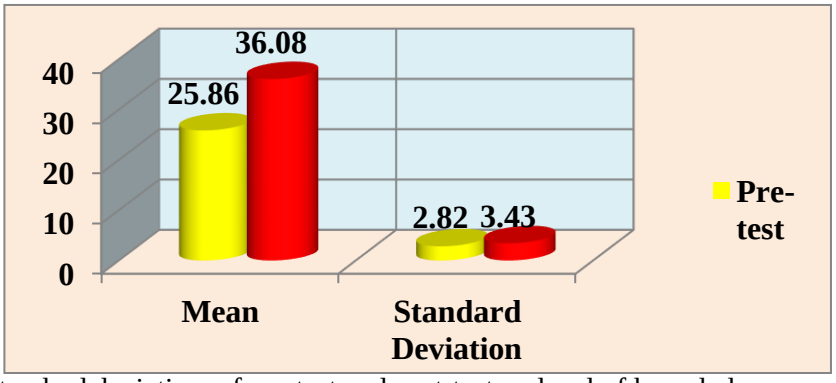

Figure 3: Mean, Standard deviation, of pre-test and post-test on level of knowledge regarding prevention and management of COVID-19.

Table 1.5: Mean, standard deviation, mean deviation and t-value of pre-test and post-test on level of attitude regarding prevention and management of COVID-19

N=50

S.No	Level of Attitude	Mean	Standard deviation	Mean Difference	t-Value
1.	Pre- test	53.08	4.94	9.92	10.23
2.	Post-test	63.00	5.89		

T ($_{(49)}$) =2.01. p<0.05 Significance

Mean score of attitude in pre-test was 53.08 and post-test was 63.00, standard deviation in pre-test was 4.94 and post test 5.89 and mean difference score was 9.92. The obtained „t"- value is 10.23. Which is significant at p<0.05 level.

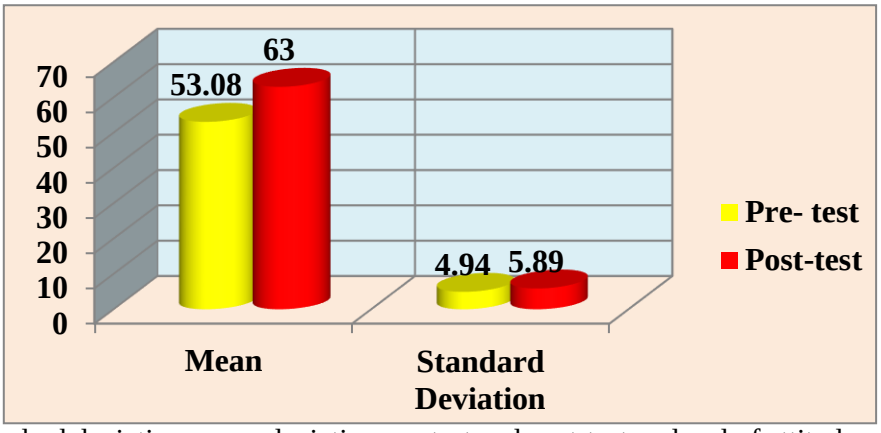

Fig: 4 Mean, Standard deviation, mean deviation pre-test and post-test on level of attitude regarding prevention and management of COVID-19.

DISCUSSION

Description of the sample characteristics represents the distribution of nursing student. According to age in 32(62.0%) of them belong to the age group between 17-19 years, 13(26.0%) of them belong to the age group between 20- 22 years, 4(8%) of them belong to the age group between 23-25 years, and 1(2.0%) of them belong to the age group between 25 years above. Regarding gender of nursing students 12(24.0%) were male and 38(76.0%) were female. Revealed that participants of education 50(100%) in Diploma, (0%) in graduate, (0%) in post graduate, and (0%) in other. Regarding the religion 1(2.0%) were Sikh, 44(88.0%) were Hindu, 1(2.0%) were christen, 4(8.0%), and (0%) were other religion. Depicts that of the participants of living area 39(78.0%) in rural area, 11 (22.0 %) urban in area. Distribution of any previous knowledge on prevention and management of COVID-19, 46(92%) were yes, and 4(8%) were no. In Distribution of nursing students, if we analyze them according to their sources of information 36(72%) were social media, 4(8.0%) were family and friends, 3(6%) were class room teaching, and 7(14%) were other sources. Among 50 nursing students, during pre- test knowledge score no one of them had inadequate knowledge, 31(62%) had moderate knowledge, 19(38%) had adequate knowledge. In post-test nobody had inadequate knowledge, 4(8%) had moderate knowledge, 46(92%) had adequate knowledge. Among 50 nursing students, during pre- test attitude score none of them had inadequate attitude score, 15(30%) had moderate inadequate score, 35(70%) had adequate attitude score. In post-test none of them had inadequate score, 5(10%) had moderate attitude score, 45(90%) had adequate attitude score.

CONCLUSION

The current study assessed the knowledge and attitude regarding prevention and management of COVID-19 among nursing students. The results showed that pre-test knowledge regarding prevention and management of COVID-19 among nursing students 31(62%) had moderate knowledge, 19(38%) had adequate knowledge. In post-test knowledge regarding prevention and management of COVID-19 among nursing students 4(8%) had moderate knowledge, 46(92%) had adequate knowledge. In pre-test attitude regarding prevention and management of COVID-19 among nursing students 15(30%) had moderate knowledge, 35(70%) had adequate knowledge. In post-test attitude regarding prevention and management of COVID-19 among nursing students 5(10%) had moderate knowledge, 45(90%) had adequate knowledge. The mean score of knowledge in pre-test was 25.86 and post-test was 36.08, standard deviation in pre-test was 2.82 and post test 3.43. The Mean score of attitude in pre-test was 53.08 and post-test was 63.00, standard deviation in pre-test was 4.94 and post test 5.89 and mean difference score was 9.92. The study findings concluded that the structured teaching programme will play important role in improving the knowledge and attitude of nursing students regarding prevention and management of COVID-19.

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CONFLICTS OF INTEREST

Regarding the publishing of this work, the authors state that they have no conflicts of interest.

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