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# EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING THE PREVENTION OF CORONA VIRUS AMONG NURSING STUDENTS IN A SELECTED NURSING COLLEGE, BANGALORE

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# ABSTRACT

Introduction: - Corona virus disease 2019 is a highly contagious viral illness caused by severe acute respiratory syndrome SARS CoV-2. It has had a devastating effect on the world's demographic resulting in more than 5.3 million deaths worldwide. It has emerged as the most consequential global health crisis since the era of the influenza pandemic of 1918. After the first cases of this predominantly respiratory viral illness where first reported in Wuhan, Hubei province, China in late December 2019, SARS CoV-2, rapidly disseminated across the world in a short span of time, compelling the world health organization (WHO).[1] Genetic sequencing of the virus suggests that it is a beta corona virus closely linked to SARS virus. It is the family of single stranded RNA viruses with a crown- like appearance under an electronic microscope. It contains large widely spread club or petal shaped spikes. Although high temperature decreases the replication of the virus, it can resist the cold temperature. It is sensitive to ultraviolet rays, and is effectively inactivated by lipid solvents including ether, ethanol, and chlorine- containing disinfectants. [2]COVID-19 is spread by dust particles and fomites while close unsafe touch between injector and the infected individuals. Airborne distribution has not been recorded for COVID-19 and is not known to be a significant transmission engine based on empirical evidence although it can be imagined if such aerosol generating particles are carried out in medical facilities. [3]Design:-Pre-experimental design (one group pre-test post-test design) was used for this present study of effectiveness of structured teaching programme on knowledge regarding prevention of corona virus among nursing students in Selected Nursing College, Bangalore. 60 Nursing students were recruited by nonprobability purposive sampling technique. Necessary administrative permission was obtained from concerned authority. Structured interview schedule was used to elicit the baseline data and structured questionnaires were used to elicit the knowledge regarding substance abuse, among of Adolescents Setting:-The study was conducted in selected College, Bangalore, 60 samples were selected for the present study. Result: - The study revealed that among 60 nursing students, 17 (28.34%) nursing students had adequate knowledge, 43 (71.66%) nursing students had moderately adequate knowledge & there was no inadequate knowledge found in the post-test score. The mean pre-test knowledge score of nursing students was 17.3, whereas the mean post-test knowledge score was 23.6. The obtained 't' value was 11.05 which was found statistically significant 0.05 levels.



Conclusion :- The study concluded that the structured teaching programme on knowledge regarding prevention of corona virus among nursing students in selected college, Bangalore carried out, the study was found to be effective in the improving knowledge of nursing students as evidenced by the significant change between pre-test and post-test knowledge score.

## INTRODUCTION

COVID-19 is characterized by rapid transmission, and can occur by close contact with an infected person. The disease since its first detection in China has nowspread to over 200 countries/ territories. COVID-19 was declaring a pandemic by WHOon 11th march 2020, resulting in shift of focus from China to Europe and NorthAmerica and later on to the world. As much WHO advised countries to take a whole-ofgovernment, whole-of-society approach, built around a comprehensive strategy toprevent disease, save lives and minimize the effect. Countries closed their borders against travel related activities (by air, road, railway, orsea) and lockdown was imposed to minimize the public movements.[4]

The WHO suggests the following basic preventive measures to protect against the new corona virus.

- Getvaccinatedassoonasit'syourturnandfollowlocalgui danceonvaccination.
- Keepphysicaldistanceatleast1meterfromothers,evenift heydon'tappeartobe sick.Avoid crowdsand close contact.
- Wearaproperlyfittedmaskwhenphysicaldistancingisno tpossible inpoorlyventilatedsettings.
- Cleanyourhands frequentlywithalcohol-based handrubor soapandwater.

If you develop symptoms or test positive for COVID-19, self-isolate until you recover.

Vaccination for COVID-19 is voluntary. However, it is advisable to receive the complete schedule of COVID-19 vaccine for protecting one-self against this disease and also to limit the spread of this disease to the close contact. It is advisable to receive the complete schedule of COVID-19 vaccine irrespective of past history of infection with COVID-19. This will help in developing a strong immune response against the disease. Persons with confirmed or suspected COVID-19 infection may increase the risk of spreading the same to others at vaccination sites, for this

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reason, infected individuals should defer vaccination for 14 days after symptoms resolution.[5]

Based on the potential availability of vaccines the government of India has selected the priority groups who are vaccinated on priority as they are at higher risk. The first group includes the health care workers because they are at high risk of contracting the infection and protecting them helps to sustain essential health services. The vaccination may not be sequential it can go in parallel for all beneficiaries depending on the availability of vaccine.[6]

The details on the disease are evolving. As such,this may not be the only waythe transmission is occurring. COVID-19 has spread widely and rapid, from Wuhancity, toother parts of the world, threatening the lights of manypeople.By the end of January 2020, the world health organization (WHO) announced a public health emergency of international concern and called for the collaborative effort of all countries to prevent its rapid spread. Later, the WHO declared COVID-19 a "GLOBAL PANDEMIC".[7]

At present, a vaccine and medicine against COVID-19 have yet to be developed, and the prevention and control of these diseases are the major challenges that everycountryfaces. Since the outbreak of the disease, different governments around the world havebeen implementing measures to contain and prevent the transmission of COVID-19. The world health organization (WHO) published COVID-19 Guide lines and Protocols, Which Were Adopted by the ministries of health of different countries.[8]

The protocols include information on signs and symptoms and prevention and protection measures against COVID-19. The centers of Disease control and prevention reiterated that everyone should protect themselves and others to prevent the spread of diseases, such protection includes proper hand hygiene, proper Distancing, use of mask, proper etiquette when coughing and sneezing, and isolation and decontamination of surfaces. [9]

The success of the measures implemented is based on the people's adherenceand prevention controls, which is largely influenced by knowledge, perception and preventive behavior against COVID-19. Most countries need significantly strengthened surveillance capacities to



rapidly identify and care for cases of COVID-19, Trance and quarantine their contacts and monitor disease trends over time. Comprehensive national surveillance for COVID-19 will require the adaptation and reinforcement of existing national systems, where appropriate and the scale-up of additional surveillance capacities, as needed. Digital technologies for rapid reporting contact tracing and data management and analysis may support these capacities [10]

## STATEMENT OF PROBLEM

"A study to assess the effectiveness of structured teaching programme on knowledge regarding the prevention of corona virus among nursing students in a selected nursing college, BengaIuru."

### **OBJECTIVES**

- 1. To assess the level of pre-test knowledge regarding the prevention of corona virus among nursing students in a selected nursing college, Bengaluru.
- 2. To assess the level of post-test knowledge regarding the prevention of corona virus among nursing students in a selected nursing college, BengaIuru.
- 3. To evaluate the effectiveness of structured teaching programmes regarding the prevention of corona virus among nursing students in a selected nursing college, Bengaluru.
- 4. To find out the association between post-test knowledge scores regarding prevention of corona virus with selected demographic variables.

## **HYPOTHESIS**

 $H_1$ :- There will be significant difference between pre-test and post-test knowledge score regarding the prevention of corona virus among nursing students in a selected nursing college, Bangalore.

 $H_2$ :- There will be significant association between the post-test knowledge score and selected demographic variables regarding the prevention of corona virus among nursing students in a selected nursing college, Bangalore.

## **MATERIALS & METHODS**

The research design adopted for this study is Evaluative research approach. The research design used for this study is one group pre-test post-test design which belongs to the Pre-experimental study.

The study was conducted in selected nursing college, Bangalore. The sample size of this study comprised of 60 nursing students from selected nursing college, Bangalore, who met the inclusive criteria were selected through the non-probability purposive sampling technique. Structured knowledge Questionnaire and structured teaching programme was used as a research tool. Since, it is considered to be the most appropriate instrument to elicit the response from subjects. The reliability of the tool was established by using split half method and Karl Spearson's formula. It was found 0.9 for structured knowledge questionnaire and tool was considered reliable for proceeding with main study.

A letter requesting permission was sent to the concerned authority of the selected nursing college, Bangalore prior to the data collection during the month of September 2021, and permission was granted for the same. The data was collected in the month of October 2021 at selected nursing colleges, Bangalore. The data was collected from 60 nursing students by using nonprobability purposive sampling technique. The purpose of questionnaire was explained to the samples with self introduction. The questionnaire was distributed to the nursing students and they took 15-20 minutes to fill up the answers for the questions and they were very cooperative. After conducting the pre-test, on the same day structured teaching programme was administer for the same and post-test was conducted after 7 days by using the same tool used for the pre-test.

## RESULTS

Description of pre-test and post-test knowledge regarding prevention of corona virus among nursing students in aselectednursing college, Bangalore

The data presented in the table-1 shows that 46 (76.6%) Adolescents had inadequate knowledge, 14 (23.3%) Adolescents had moderately adequate knowledge and no one found adequate knowledge in the pre-test. The mean is 17.3 and standard deviation was 3.14 in the pre-test knowledge.

Whereas 17 (28.3%) Adolescents had adequate knowledge, 43 (71.6%) Adolescents had moderately adequate knowledge and no one found inadequate knowledge in post-test. The mean is 23.6 and standard deviation of 5.48 was found in the post-test knowledge.

The data presented in a table-2 shows that the obtained [t] value was 11.05, which was found with statistically significant at 0.05 levels.

	Category	Classification of Nursing students knowledge				
Knowledge level		Pro	e-test	Post-test		
		Frequency	Percentage (%)	Frequency	Percentage (%)	
		(1)		(1)		
Adequate	75 100%	0	0%	17	28.3%	
knowledge	/5-100/0		070	17		
Moderate	50 740/	10	76.60	12	71.6%	
knowledge	50-74%	40	/0.0%	45		
Inadequate	<b>50</b> 0/	14	00.00/	0	0	
knowledge	50% and below	14	23.3%	U		
Total		60	100	60	100	

Table 1. Frequency, percentage, mean and standard deviation of pre-test and post-test knowledge score of nursingstudents regarding prevention of corona virus.n=60

Table No.2: Mean, Standard Deviation and paired't' test to determine the effectiveness of structured teaching<br/>programme regarding knowledge on prevention of corona virus among nursing students in a selected nursing college,<br/>Bangalore.n=60

Max score	Mean	SD	Meandifference	paired "t'test	Significance	
Pre-Test	17.3	3.15	6.2	11.05	0.05*	
Post-Test	23.6	5.48	0.5	11.05		

Table No.3: Association of effectiveness of structured teaching programmes on knowledgeregarding prevention ofcorona virus among nursing students in a selected nursing college, Bangaloren=60

SL No	Demographic	No	%	Level of knowledge				Chi aquana
SL NO	variable	INU		Adequate		Moderate		Cm-square
	Age (in years)							
1.	18-20	46	76.6%	17	28.3%	29	48.3%	$x^2 = 1.79*$
	21-23	14	23.4%	8	13.3%	6	10%	
	Religion							
2.	Hindu	36	60%	30	50%	8	13.3%	
	Christian	16	26.6%	12	20%	2	3.3%	$x^2 = 4.39^*$
	Muslim	8	13.3%	4	6.6%	2	3.3%	
	Education							
3.	Science	36	60%	19	31.6%	5	8.3%	$r^2 - 0.16**$
	Arts	24	40%	30	50%	6	10%	x -0.10
	Family							
4.	Nuclear	41	68.3%	38	63.3%	5	8.3%	$x^2 - 5.0*$
	Joint	19	31.6%	14	23.3%	3	5%	x =5.9*

## NS\*\* Not significant S\* Significant

## IMPLICATION OF THE STUDY

The result of the study proceed that nursing students had inadequate knowledge regarding prevention of corona virus. The findings of the study have scope in the following areas,

# NursingPractice

1. Nurses working in community fields should have enough knowledge about prevention of corona virus among nursing students in selected nursing colleges. They should be keen observers since the students cannot speak out about their problems.

- 2. Regular awareness classes can be conducted for nursing students to increase the knowledge about prevention of corona virus.
- 3. Not only nurse but all the health care providers such as auxiliary nurses andmidwives, village nursing working in community centers should provide inservices education regarding prevention of corona virus.



## NursingEducation

- 1. Nursing curriculum can be modified with increase emphasis on prevention of corona virus.
- 2. Nursing students can also be trained to work in care under proper guidance.

## NursingAdministration

- 1. Administration can organize structured teaching programmes in colleges to improve the knowledge regarding prevention of corona virus.
- 2. The nursing administrator should concentrate on the proper selection, placement and effective utilization of the nurse in all areas giving opportunityfor creativity, creating interest and enhancing ability in educating nursing students regarding prevention of corona virus.

## NursingResearch:

The findings of the study had shown the majority of the nursing students had inadequate knowledge regarding prevention of corona virus. The study motivates the beginning researcher to conduct the same studywith the different variables on a largescale.

## ASSUMPTIONS

✓ Community Health Nurse has the role in educating nursing students about the prevention of corona virus. Structured teaching programs may improve the knowledge among nursing students regarding prevention of corona virus.

## LIMITATIONS

1. The study was conducted in selected nursing colleges

Sample was selected only from one institution; hence generalization can only be made for the selected sample.
The study did not use control group. The investigator had no control over the events that took place between pre-test and post-test.

### RECOMMENDATIONS

Based on the study findings the following recommendations have been made for further study:

- 1. Similar study can be carried out on larger samples for broader generalization.
- 2. A comparative study may be conducted to assess the knowledge, regarding prevention of corona virus among rural population.

- 3. A comparative study could be conducted in different settings to find out the effectiveness of structured teaching programme.
- 4. An experimental study could be replicated with a control group.
- 5. A study could be conducted on large group and different setting and students from various colleges.

## DISCUSSION

Structured teaching programme was found to be an effective educative method for improving the knowledge of nursing students in the selected nursing college regarding prevention of corona virus. The findings were similar to other studies, which shown that nursing students having good knowledge on prevention of corona virus. In the present study results revealed that obtained [t] value was 11.05, which were found with statistically significant at 0.05 levels.

## CONCLUSION

The study concluded that the Structured teaching programme onknowledge regarding prevention of corona virus of nursing students in the selected college carried out was effective in improving the knowledge of nursing students as evidenced by the significant change between pre-test and post-test knowledge score.

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