

A Study to Determine the Effectiveness of Self-Instructional Module on Knowledge Regarding PPE Kit in the Care of Corona Patient Among B.Sc. Nursing Students in Government College of Nursing at Guntur

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Abstract: The research was carried out at the Government College of Nursing in Guntur, Andhra Pradesh. The investigator chose the study settings for the selected B.sc nursing students based on practicality and availability of the sample of subjects. The final study's sample included 30 people over the age of 18, who were carefully chosen. Knowledge about PPE kit was used in the pre-test and post-test design. The investigator developed a questionnaire. On the basis of the study's findings, the following conclusions were drawn. 83.3 per cent of students scored average knowledge and 16.7% got above average knowledge on the pre-test. There was a considerable improvement in knowledge relating to the usage of PPE kits after the self-instructional approach, as evidenced by post-test scores in After self-instructional model there was a significant increase in knowledge related to wearing of PPE kit use which is indicated by post- test scores in which students had scored above average with 100%. Students responded well and showed knowledge improvement in post- test performance which was the clear indication of the effect of knowledge gained with self- instructional module.

Keywords: PPE kit, self-instructional module.

1. Introduction

“With the New day comes New strengths and New thoughts”

Health Care professionals and patients are at high risk to be exposed to potentially infected blood and fluids that can lead to serious or even lethal infections, nurses in particular are repeatedly exposed to various infections during the cause of Carrying out their nursing activities. This Can be minimized by applying standard precautions as hand hygiene, use of personal protective equipment (ex: mask, gloves, gowns), safe injection practices, safe handling of potentially contaminated equipment or surfaces in the patient environment, and respiratory hygiene/Cough etiquette which are designed to reduce the risk of acquiring occupational infection and various pandemic respiratory infections from both known and unexpected sources in the health Care setting. At 1996 the Centre for Disease Control and prevention (CDC), put forward guidelines, a

revised version of a preventive concept against nosocomial infections and other infections It advocates basic standard precautions for all health Care delivery and additional Care workers and patients from exposed to potentially harmful specific measures to protect health microorganisms. Despite the adoption of these guidelines by health Care worker in several Countries, Compliance with aseptic precautions is known to be “poor and lacking”, numerous studies shown that factors that contribute to non-Compliance with standard precautions include lack of understanding and knowledge among B.SC. Nursing students on how to properly use protective barriers, lack of time, lack of resources and lack of proper training.

Importance of wearing of PPE:

- Standard precautions offer a consistent approach to infection control that does not rely on knowledge or suspicion of infection and contributes to staff and patient safety by reducing the risk of exposure to potentially infectious materials PPE has become an important subject during the current Carona virus.
- Covid-19 is predominantly to relatively contact or droplet transmission attributed to relatively large respiratory particles.
- Airborne transmission may occur it patient respiratory activity or medical procedures generate respiratory aerosols.
- Personal protective equipment is an important component, but only one part, of a system protecting staff and other patients from covid-19 cross infection. Appropriate use significantly reduces risk of viral transmission.
- Personal protective equipment should logically be matched to the potential mode of viral transmission occurring during patient care contact droplet or airborne.

However, the risk is higher for anyone in close contact with

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people who have Covid-19 such as doctors, nurses and other health Care workers. Nurses are the front-line warriors in the Care of the corona patients. So, they have to protect themselves, patients and the community from this Covid-19 disease. So, there is a need for the knowledge about doffing and donning of PPE (personal protective equipment) among the nursing students in order to Control the spread of infections.

Objectives of the study:

1. To find out the socio demographic variables of B.Sc. nursing students.
2. To assess the knowledge gained in pre-test and post-test with the use of PPE kit in B.Sc. nursing students.
3. Effectiveness of self-instructional module on care of corona patients among B.Sc. (N) students.
4. Association between demographic variable with knowledge of PPE kit in the care of corona patients among B.Sc. (N) students in per test and post-test Knowledge scores.

Description of tool:

The Questionnaire was prepared with the help of related literature and based on personal experiences of Investigator for its effectiveness, discussion with the experts in the field of Nursing

Section 1: Demographic data

Demographic data for the students such as age, gender, education, previous experiences training programme etc.

Section 2: Knowledge related Questions.

It deals with the knowledge regarding self-instruction model of PPE kit in the care of Corona patients. It consists of 30 Questions each question carries one mark. The total score of Section II is 30 marks.

- 0 – 50% Below average [0 -10]
- 51 – 75% Average [11-20]
- 76 -100% Above Average [21-30]

Table 1
Knowledge scores

0 – 50%	Below average	[0 -10]
51 – 75%	Average	[11-20]
76 -100%	Above Average	[21-30]

2. Conceptual Framework

Providing knowledge regarding PPE Kit in the case of corona patient.

Major findings:

Objective-1: To find out the socio demographic variables of B.Sc. nursing students

In the total samples 60per cent participants were between the

ages of 20-21 years age group and rest of 40 per cent were falling between the 22-26 years age group and .20(66.7%) were belonged to the Hindu Community, 9(30.00%) were belonged to Christian community and 1(3.3%) were Muslim community.

As per the health problems concerned 2(6.7%) were having health problems and 28(93.3%) were having no health problems and 13(43.4%) students were received health education and 17(56.6%) were not.

In related to allergies, 4(13.3%) students had allergies and 26(86.7%) did not. 29(98%) not exposed to covid -19 only one person was exposed to Covid-19.

Objective-2: The level of knowledge in the pre test and post test on PPE kit in the care of corona patients among BSC (N) students in govt. college of Nursing.

The table 2, shows the distribution of scores as per the scoring they obtained for their level of Knowledge.

The higher level of Knowledge in the pre test is 83.per cent and the above average knowledge score were 16.7 per cent. And the level of knowledge in the post test average with 10 percent and above average knowledge 90 per cent.

Objective-3: Effectiveness of self-instructional module on care of corona patients among B.Sc. (N) students.

The table 3, shows the distribution of scores as per the scoring they obtained for their level of Knowledge.

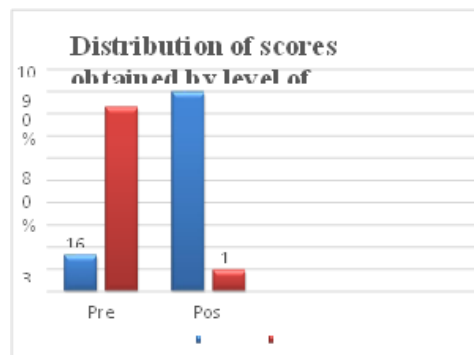


Fig. 1. Distribution of scores

The table 3, shows that effectiveness of wearing of PPE kit has the significant difference that there is improved knowledge in the care of corona patients among B.Sc.(N) students after the post test, the pre-test mean is 17.93 with an S.D 1.6174 and the post-test mean score 25. with an S.D. 8023.

After self-instructional module related to the using of PPE kit knowledge has drastically increased which was clearly observed in the difference between pre-test (83.3% of them scored average knowledge) and post-test (90%). The calculated “t” value -24.062 was very much higher that indicates after pre-

Table 2

S. No.	Level of knowledge	Below average		Average		Above average	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1	Pretest	0	0	25	83.3%	5	16.7%
2	Post test	0	0	3	10%	27	90%

Table 3

S. No.	Level of knowledge	Below average		Average		Above average	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1	Pretest	0	0	25	83.3%	5	16.7%
2	Post test	0	0	3	10%	27	90%

test knowledge scores were high. Hence, the self-instructional module related to the demonstration of donning and doffing of PPE kit, highly effective in Nursing students for self-safety.

Objective-4: Association between demographic variable with knowledge of PPE kit in the care of corona patients among B.Sc. (N) students in pre test and post test Knowledge scores.

Table 4

Variable	Pre test	Post test
	Chi square	Chi square
Age	1.199	8.847
Religion	2.622	1.959
Health problems	8.214	1.171
Allergies	2.596	6.731
Exposed to COVID-19	0.000	0.000
Health Education	1.199	5.080

The table 4, reveals that there is no significant difference between demographic variables of pre-test and post-test scores of knowledge.

Implications:

The results of study helped the researchers to desire certain implications for nursing practice, nursing administration, nursing education and nursing research.

Nursing Practice:

Nursing professional role in the provision of doing service to human beings provide effective nursing care in contemporary practice setting require a broad knowledge base on understand and promotion of human health. The knowledge base for nursing practice in nursing PPE kit for self-safety of nurses should practice donning and doffing of PPE kit.

Nursing Administration:

Nurse administration should plan and organize continuing education program for nursing personals related to wearing PPE kit. Nurse administration should motivate the nurse to participate in health programmer campaigns related to PPE kit. Nurse administer should organize workshops, demonstration related to donning and doffing of PPE kit.

Nursing Education:

Motivate nursing student to practice importance of wearing of PPE kit like How to use? when to use, side effects of newer methods of teaching, focusing on interest, quality and cost effectiveness.

Nursing Research:

Research provides a scientific approach with nursing practice. The need for accountability has made nursing research essential for professional practice. Hence a the nursing should concentrate on conducting effective teaching program in order to improve nurses knowledge related to wearing of PPE kit to reduce nurses exposure to infections.

Recommendations:

- Similar study can be contacted with large sample.
- A similar study can be conducted on class four employees.
- A similar study can be conducted on doctors.

3. Conclusion

This paper presented a study to determine the effectiveness of self-instructional module on knowledge regarding PPE kit in the care of corona patient among B.Sc. nursing students in government college of nursing at Guntur.

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