Journal of Advanced Nursing Practice

EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING INFECTION CONTROL AMONG NURSING STUDENTS AT SELECTED NURSING COLLEGE, BANGALORE

Tejeshwari B V[1]*, A.Harini[2], Anita Kuriakose[3], Libin Mathew[4], Pooja Timilsena[5], Shalini S [6], Sindhu S[7]

[1]Guide, Ph. D Scholar, HOD & Associate Professor, Department of Community Health Nursing, RajaRajeswari College of Nursing, Bangalore, Karnataka, India.
[2-6]B.Sc (N) Students, RajaRajeswari College of Nursing, Bangalore, Karnataka, India.

Article Information	Corresponding Author
Received 25/04/2021; Revised 15/05/2021; Accepted 27/05/2021	**Tejeshwari B V** Email:- tejeshwinirajesh@gmail.com

ABSTRACT

Introduction: - Infection control addresses factors related to the spread of infections within the healthcare setting, whether among patients, from patients to staff, from staff to patients, or among staff. This includes preventive measures such as hand washing, cleaning, disinfecting, sterilizing, and vaccinating. Infection control is the discipline concerned with preventing nosocomial or health care associated infection, a practical sub discipline of epidemiology infection, it is a vital through often non-supported and not recognized as a part of health care. Hospital acquired infection (HAI) is a major global safety concerned for both patient as well as health care professionals. Many factors stimulate infection among hospitalized patient- 'decreased resistance among patient'. 'Increasing variation of medical procedure and invasive techniques crafting potential roots of infection' and the transmission of drug-resistant bacteria is packed among hospital population where poor practice in infection control may facilitate transmission. **Design**:-True-experimental design (one group pre-test post-test design) was used to study of effectiveness of video assisted teaching on knowledge regarding infection control among nursing students. 50 Nursing students in Nursing college, Bangalore were recruited by non-probability convenient 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 of nursing students regarding infection control. **Setting**:-The study was conducted in selected Nursing College, Bangalore, 50 samples were selected for the present study. **Result**: - The study revealed that among 50 nursing students, 20 (40%) nursing students had adequate knowledge, 30 (60%) 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 10.98, whereas the mean post-test knowledge score was 16.87. The obtained 't' value was 16.05 which was found statistically significant 0.05 levels. **Conclusion** :- The study concluded that the video assisted teaching on knowledge regarding infection control among nursing students from selected nursing 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.

Key words: Knowledge, Effectiveness, Video assisted teaching, Infection control.

Research Article

2

Tejeshwari. B V.et al. / Journal of Advanced Nursing Practice. 2021; 8(1):1-5.

INTRODUCTION

Effective infection prevention and control is central to providing high quality health care for patient and a safe working environment for those who work in health care settings for this reason, urgent need for policies to be formed to monitor, prevent and control the HACI. Understanding the modes of transmission of infection organism and knowing and when to apply the basic principal of infection prevention and control are critical to the success of an infection control programme. This responsibility to all the HCWs and staff working in the hospital as well as other visitor coming to health care facility, comprehensive infection prevention and control practices are required to be effectively prevent, identity, monitor and control the spread of the infection in all the health care facility.

The following policies for effective infection control should be in place in all health care settings.

1. Guidelines for prevention and control of infection.

2. Antimicrobial use guidelines.

3. HCAI surveillance guidelines.

4. Disinfection.

5. Guidelines for patient isolation.

6. Investigation of an outbreak of infection.

A hospital is one of the most likely places the for acquiring an infection because it harbors a high population of microorganism, some of witch or resistant to certain antibiotic, witch may lead to hospital acquired infection. The study was found to intervene and get insight above the problem of health care associated disease and constraints that arises due to inadequate infection control practices, thereby finding an appropriate solution for the occupational safety of employees. Thus focuses on improving clinical services and well being of patient and health care provider. Information drawn from this research can serve as guidelines to institute and improve exiting hospital services related to infection control, make new ones to achieve excellence services.

Today's student nurses are tomorrow staff nurses. Who can contribute themselves more in the field of treatment, but today this nursing curriculum doesn't the much importance to infection control measures, so naturally student have less exposure to that field make them vulnerable in knowledge and practices. Educating these students and creating awareness in helping to learn more about infection control measures and they will be able to control the infection. So nurses concerned with care and prevention of infection occurring through all sources, they hold infections the midwifes has to be knowledgeable and has good practice activities, regarding infection control measures to prevent the puerperal infection.

STATEMENT OF PROBLEM

"A Study to assess the effectiveness of video assisted teaching on knowledge regarding infection control among nursing students at selected nursing college, Bangalore".

OBJECTIVES

1. To assess the existing level of knowledge regarding infection control among nursing students at selected nursing colleges, Bangalore.

2. To assess the post-test level of knowledge regarding infection control among nursing students at selected nursing colleges, Bangalore.

3. To evaluate the effectiveness of video assisted teaching on knowledge regarding infection control & its prevention among nursing students at selected nursing colleges, Bangalore.

4. To find out the association between post-test knowledge scores with the selected demographic variable among nursing students at selected nursing college, Bangalore.

HYPOTHESIS

H_1:- There will be significant difference between pre-test and post-test knowledge score among the nursing students at selected nursing college, Bangalore.

H_2:- There will be significant association between the post-test knowledge score and selected demographic variables among the nursing students at 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 50 nursing students from selected nursing college, Bangalore, who met the inclusive criteria were selected through the non-probability convenient sampling technique. Structured knowledge Questionnaire and video assisted teaching 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 0.8 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 December 2020, and permission was granted for the same. The data was collected in the month of January

3

Tejeshwari. B V.et al. / Journal of Advanced Nursing Practice. 2021; 8(1):1-5.

2021 at selected nursing colleges, Bangalore. The data was collected from 50 nursing students by using non-probability convenient sampling. 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 co-operative. After conducting the pre-test, they were given video assisting teaching programme was conducted 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 of nursing students regarding infection control.

The data presented in the table-1 shows that 45 (90%) nursing students had inadequate knowledge, 5 (10 %) nursing students had moderately adequate knowledge and no one had adequate knowledge in the pre-test. The mean is 10.98 and standard deviation was 10.16 in the pre-test knowledge.

Whereas 20 (40%) nursing students had adequate knowledge, 30 (60%) nursing students had moderately adequate knowledge and no one found inadequate knowledge in post-test. The mean is 16.87 and standard deviation of 14.51 was found in the post-test knowledge. The data presented in a table-2 shows that the obtained [t] value was 16.05, which was found with statistically significant at 0.05 levels.

IMPLICATION OF THE STUDY:-

Nursing Practice
1. Nurse working in community field should have enough knowledge on infection control and able to find opportunity to teach and improve knowledge regarding prevention of infection control.
2. Nursing professional can play key role in enhancement of knowledge of students regarding prevention of infection control, which could improve the knowledge of students.

Nursing Education
1. Nursing curriculum can be modified with unincreased emphasis on infection control
2. Students can be also trained to work in care under proper guidance & suggestions
3. Nurse Educator should plan and organize health programme to educate Nursing students regarding selected aspects of Infection control.
4. Awareness programme to be arranged in various colleges and community regarding selected aspects of Infection control among Nursing students & community population.

Nursing Administration
1. Administration can organize educational programme in schools, colleges and community areas to provide knowledge regarding infection control.
2. The nurse administrator in the higher level/ authority must hold discussion and meeting on preventing infection incidence based on that, the knowledge of the students can be assessed and prevention can be planned and implemented in school and community at various levels.

Nursing Research
1. Management and administration authorities give encouragement, motivation and financial support to do research on Prevention and control of Infection for their faculties and students.
2. The findings of the study help the professional nurses and the students to develop inquiry for research.

ASSUMPTIONS:-
- Nursing students will have some knowledge regarding selected aspects Infection control.
- Video assisted teaching may enhance the knowledge of nursing students regarding selected aspects of Infection control.

LIMITATIONS:-
1. The study was conducted in selected colleges.
2. Sample was selected only from one institution; hence generalization can only be made for the selected sample.
3. 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 similar study can be conducted among staff nurses to assess the knowledge on selected aspects of Infection control.
3. A comparative study may be conducted to assess the knowledge, belief and practice on Infection control among nursing students.
4. A comparative study could be conducted in different settings to find out the effectiveness of Video assisted teaching
5. An experimental study could be replicated with a control group.
6. A study could be conducted on large group and different setting and students from various colleges.
7. A study could be conducted to assess the long-term effects of Video assisted teaching programmes in

4

Tejeshwari. B V.et al. / Journal of Advanced Nursing Practice. 2021; 8(1):1-5.

their future service field.
8. A comparative study could be undertaken to evaluate different teaching strategies, self-instructional module (SIM), peer evaluation and education by student nurses.

9. A follow up study of Video assisted teaching programmes could be carried out to find out the effectiveness in terms of retention of knowledge and skill.

Table 1: Frequency, percentage, mean and standard deviation of pre-test and post-test knowledge score of nursing students regarding infection control. n=50

Knowledge level	Category	Classification of nursing students knowledge			
		Pre-test		Post-test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Adequate	75-100%	0	0	20	40%
Moderate	50-74%	5	10%	30	60%
Inadequate	50% and below	45	90%	0	0
Total		**50**	**100**	**50**	**100**

Table 2: Mean, Standard Deviation and paired 't' test to determine the effectiveness of Video assisted teaching regarding knowledge on Infection control among nursing students. n=50

Max score	Mean	SD	Mean difference	paired "t' test	Significance
Pre-Test	10.98	10.16	5.89	16.05	0.05*
Post-Test	16.87	14.51			

Table 3: Comparison of pre-test and post-test level of knowledge among nursing students regarding Infection control n=50

Level of knowledge	Pre-test		Post-test		Chi square test
	No. of nursing students	%	No. of nursing students	%	
Adequate knowledge	0	0	20	40%	$x^2 = 9.2$ Df=3 P=0.05**
Moderately adequate knowledge	5	10%	30	60%	
Inadequate knowledge	45	90%	0	0	
Total	**50**	**100**	**50**	**100**	

DISCUSSION
Video assisted teaching was found to be an effective educative method for improving the knowledge of nursing students in the selected nursing college regarding Infection control. The findings were similar to other studies, which shown that nursing students having good knowledge on Infection control. In the present study results revealed that obtained [t] value was 16.05, which were found with statistically significant at 0.05 levels.

CONCLUSION
The study concluded that the Video assisted teaching on knowledge regarding Infection control of nursing students in the selected nursing 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.

REFERENCES
1. Vinodhini K. Study on Infection Control Practices among Healthcare Workers in a Specialty Hospital, Chennai. *Journal*

5

Tejeshwari. B V.et al. / Journal of Advanced Nursing Practice. 2021; 8(1):1-5.

of Pollution Research, 2016, 35(3):549-555.

2. Kanwal Preeth Sodhi, Anupama shrivastava. Knowledge of infection control practices among intensive care nurses in a tertiary care hospital. *Journal of Infection control & public health*, 2013, 6, 269-275.

3. Vasantha Priya Jayasheelan, Divya Ravikumar. Knowledge and Perception on Prevention of Hospital Acquired Infections (HAI) among Health Care Professionals in Tertiary Care Teaching Hospital. *Journal of Pure and Applied microbiology*, 2020, 14(2):1527-1536.

4. Mahbuba Sharmin, Farjana Akhter. Knowledge, Attitude and Practice of Staff nurses on Hospital Acquired Infections in tertiary care Hospital of Dhaka city. *Northern International Medical College Journal,* 2018, 10(1):347-350.

5. Kaushik Nag, Anjan Datta. Knowledge, attitude and practice about hospital acquired infection among health care personnel in a tertiary care hospital of Tripura. *International Journal of research in Medical sciences*, 2018, 6(10):3303.

6. Riffit Mehaboob. Nosocomial infections: Epidemiology, prevention, control and surveillance. *Asian pacific journal of tropical biomedicine*, 2017,7 (5):30950-9.

7. Vivek Ghosh, Paudel IA. Knowledge, Attitude and Practice of nursing students on Hospital Acquired Infections in Western region of Nepal. *Journal of college of medical sciences,* Nepal, 2016, 12(3):103.

8. Mythri H, Arun A, Kashinath KR. Perception and Practice Regarding Infection Control Measures among Healthcare Workers in District Government Hospital of Tumkur, India. *Indian journal of public health research and development*, 2016, 7(1):127.

9. Imad Fashafsheh, Ahmad Ayed, Faeda Eqtait, Lubna Harazneh. Knowledge and Practice of Nursing Staff towards Infection Control Measures in the Palestinian Hospitals. *Journal of education & practice*, 2015, 6(4):79-90.

10. Jessie Kit Ling, Lorna Kwai Ping. Observational study of compliance with infection control practices among healthcare workers in subsidized and private residential care homes. *BMC infectious disease*, 2021, 21(75):1-11.

11. Priya Kotwani, Deepak Saxeena. Assessment of infection control practices: A cross-sectional study from public health facilities of Madhya Pradesh. *Indian Journal of Community Medicine*, 2019, 44(4):399-400.

Research Article