Indian Journal of Nursing Sciences

International Peer Reviewed Journal

Research article

Effectiveness of planned teaching programme on knowledge regarding Prevention of Nosocomial Infection

Atul Sharma,* Chanu Bhattacharya

Geetanjali College of Nursing, Hiran Magri, Eklingpura, Udaipur, Rajasthan, India.

Abstract

Aim: A study to assess the effectiveness of planned teaching programmers (PTP) on knowledge regarding prevention of nosocomial infection. The objectives of the study were to 1. Assess the knowledge of Final year B.Sc. Nursing students regarding prevention of nosocomial infection. 2. Find the effectiveness of planned teaching programme on the prevention of nosocomial infections.
Materials and methods: An evaluator approach was used for this study, which was carried out among Final year B.Sc. Nursing students in Sahyadri College of Nursing, Mangalore. 50 samples were selected using purposive sampling technique. Data was collected by administering a structured knowledge questionnaire to assess their knowledge. Investigators using audiovisual aids gave a planned teaching programme. Data analyses were done by using descriptive statistics, such as frequency, percentage, mean and standard deviation.
Result: The mean pre-test score was 13.8 whereas the post-test score was 23. This shows that the planned teaching programme on the prevention of nosocomial infection was effective in increasing the knowledge of the students.
Conclusion: The mean pre-test score was 13.8 whereas the mean post-test score was 23. The above facts prompt us to conclude that the planned teaching programme is an effective method to increase the knowledge regarding the prevention of nosocomial infections.

Key words: Planned teaching programme, Nosocomial Infection, nursing.

***Corresponding author: Atul Sharma,** Geetanjali College of Nursing, Hiran magri, Eklingpura, Udaipur, Rajasthan, India. Email: atul27june@yahoo.com

1. Introduction

Hospitalized infection or Nosocomial infections are infections that are acquired as a result of exposure to microorganisms in a hospital setting [1]. These infections are controlled by standard precautions like hand hygiene, barrier method, biomedical waste management, linen handling, sterilization, and disinfection [2]. According to the Centre for Disease Control, up to 10% of hospital patients acquire a nosocomial infection, while surgical patients are at a even greater risk.

Access this article online

Website:www.innovationalpublishers.com/journal/ijns	eISSN: 2581-463X
DOI: doi.org/10.31690/ijns/23	

How to cite this article: Atul Sharma, Chanu Bhattacharya, Effectiveness of planned teaching programme on knowledge regarding Prevention of Nosocomial Infection, Ind J Nur. Sci. 2018; 3(2): 47-49.

Approximately 25% to 50% of these infections are due to patient's own bacteria and invasive devices like central venous catheters and urinary bladder catheters [3]. Approximately, one-third of nosocomial infections are preventable. Health care provider often transmits Nosocomial infections from patient to patient through direct contact. Washing hands immediately after handling patient and procedures and making appropriate use of protective equipment such as gloves form the first line of defense in preventing the spread of nosocomial infections. Isolated infections can be caused when the patient is introduced into another area. Therefore, care must be taken to change gloves and wash hands when moving from one task to another [4]. About 20 million of 30 million patients admitted to the nation's hospitals each year, develop hospital-associated (nosocomial) infection. In addition to the considerable morbidity and mortality caused by these infections, their diagnosis and treatment (including additional days of hospitalization) cost more than 1 billion

dollars a year [5]. Since the turn of the century, significant changes have occurred in the prevention and control of communicable diseases. Increased knowledge about causative organisms, development of immunizing agents, and more successful treatment with the introduction of antibiotics have changed the nature and extent of the problem in many countries [6].

Objectives

1. Assess the knowledge of final year. B.Sc. nursing students regarding the prevention of nosocomial infections.
2. Find the effectiveness of planned teaching programme on prevention of nosocomial infection

2. Materials and methods

An evaluative approach was used in the study. An evaluative approach was designed to obtain information regarding the knowledge of undergraduate nursing students about control of nosocomial infections. A pre-experimental one group pretest, the post-test design was used for this study. The study was conducted at Sahyadri College of Nursing, Adyar, Mangalore. In this study, a purposive sampling technique was used for selecting the sample. The sample consisted of 50 Final years B.Sc. Nursing students of Sahyadri College of Nursing. This study was primarily concerned with the assessment of knowledge among Final year B.Sc. Nursing students regarding control of nosocomial infection. The tool was used as a structured knowledge questionnaire on the prevention of nosocomial infection. Period of data collection extended from 7/6/2011 to 14/ 6/2011 and permission was obtained from the head of the institution prior to the data collection. Pre-test assessment on selected representative by structured knowledge questionnaire of knowledge on the prevention of nosocomial infection before the planned teaching programme was done. Soon after which the planned teaching programme followed it on the prevention of nosocomial infection to all pre-tested candidates. After which the post-test assessment was done on selected representative by structured knowledge questionnaire on the prevention of nosocomial infection after the planned teaching programme.

The knowledge on prevention of nosocomial infection was assessed by using pre and post-test and was analyzed using frequency, percentage, mean and standard deviation. The level of knowledge was categorized as follows.

0 - 5 Poor, 6 -10 below average,

11-15 Average,

16-20 Good,

21-25 Excellent,

3. Result

Table No. 1: Demographic profile of the subjects in frequency and percentage. n=50

Sr. No.	Variable	Frequency	Percentage
1	Age a) ≤ 20years. b) 21years. c) ≥ 22years.	 0 37 13	 0 74 26
2	Gender a) Female b) Male	 49 01	 98 02
3	Academic performance a) 50-55% b)56-60% c)61-65% d)66-70% e)≥ 70%	 2 6 14 18 10	 4 12 28 3.6 20

The data presented in Table 1 depicts that the majority of the subjects, i.e.; 74% were in the age group of 21 years, and only 26% were in the age group of ≥22 years, majority of the subjects, i.e. 98% were females and only 2% were males, that majority of the students, ie, 36% had academic performance between 66-70%, 28% of the samples had academic performance in the range 61-65%, 20% of the subjects, had academic performance of ≥71%, 12% of the samples had academic performance between 56-60% and only 4% of the students had academic performance in- the range 50-55%.

Table No 2: Frequency, percentage, mean and standard deviation (S.D) of pre-test score

Sr. No	Level of knowledge	Score	Frequency	%	Mean	S.D
1	Excellent	20-25	0	0		
2	Good	16-19	3	6		
3	Average	11-15	36	72	13.8	2.273
4	Below Average	6-10	11	22		
5	Poor	0-5	0	0		

The data presented in table 2 shows that in pre test 72% students had average knowledge, 22% students had below average knowledge and only 6% of students had good knowledge regarding prevention of nosocomial infection. The mean pre-test score is 13.8 and the standard deviation is 2.273.

Table No 3: Level of knowledge in the posttest

Sr. No.	Level of knowledge	Frequency	%	Mean	S.D
1	Excellent	50	100		
2	Good	0	0		
3	Average	0	0	23	3.91
4	Below average	0	0		
5	Poor	0	0		

The mean pretest knowledge score was 13.8 ± 2.273 whereas the mean post-test knowledge was 23 ± 3.91, which shows that there

is an increase in the mean post-test knowledge score. Hence the research hypothesis has been accepted.

Table No 4: Comparison between pre-test and post-test score

Level of knowledge	Pre-test		Post-test	
	Frequency	%	Frequency	%
Excellent	0	0	50	100
Good	3	6	0	0
Average	36	72	0	0
Below average	11	22	0	0
Poor	0	0	0	0

Data presented in table 4 and figure 4 shows that 100% of the students had excellent knowledge after the planned teaching programme, whereas none had excellent knowledge regarding prevention of nosocomial infection in the pre-test. Thus it shows that planned teaching programme on prevention of nosocomial infection has been effective in increasing the knowledge of students.

4. Discussion

Humans are not free of infections or diseases and probably never will be. Infectious disease can be prevented and cured more easily than any other major group of disorders, but recent studies reveal that the patients keep coming to the outpatient department because of secondary infections, despite undergoing treatment in the same hospital before. This is because of the poor attention is given to them by the healthcare workers [7]. It was observed that the majority of the subjects, i.e., 74% were in the age group of 21 years, and only 26% were in the age group of $\geq$22 years. Majority of the subjects, i.e.; 98% were females, and only 2% were males. Majority of the students, i.e.;36% had academic performance between 66-70%, 28% of the samples had academic performance in the range 61-65%, 20% of the subjects, had academic performance of $\geq$71%, 12% of the samples had academic performance between 56-60% and only 4% of the students had academic performance in the range 50-55%.

Knowledge on prevention of nosocomial infection

Pre-test result shows that 72% students had the average knowledge, 22% students had good knowledge regarding prevention of nosocomial infection. The mean pre-test score is 13.8 and the standard deviation is 2.273.

Effectiveness of planned teaching programme

The mean pre-test knowledge score was 13.8$\pm$2.273 whereas the mean post-test knowledge was 23$\pm$3.91, which shows that there is an increase in the mean post-test knowledge score. Thus it can be concluded that the planned teaching programme is effective in improving the knowledge on prevention of nosocomial infection among B.Sc. Nursing students.

Conclusion

The study was conducted to assess the effectiveness of planned teaching programme on knowledge regarding the prevention of nosocomial infections among B.Sc. Nursing students in a selected college of Mangalore. The analysis of the findings revealed that the planned teaching programme was effective as shown by the increased score in the post-test. The mean pre-test score was 13.8 whereas the mean post-test score was 23. The above facts prompt us to conclude that the planned teaching programme is an effective method to increase the knowledge regarding the prevention of nosocomial infections.

Recommendations

- A similar research project/study can be conducted in various schools, college; primary health centers settings [8].
- The teachers, nurses, doctors, family members play a major role in educating the children and in caring for the children in the school premises, so their knowledge levels need to be assessed. Based on knowledge levels health education on bronchial asthma can be planned [9].

Acknowledgment

The investigator expresses cordial thanks to the Correspondent, Principal and teachers of selected college for their permission and support. The investigator expresses her gratitude to study participants for extending their co-operation. Diction is not enough to express my regards to my family members whose affection enable me to complete this project.

References

[1] Sushma R. A study on the effectiveness of a specially designed memory training package on enhancement of memory of secondary school students.
[2] Polit DF, Beck CT. Nursing research. 8th edition. New Delhi: Wolters kluwer India private limited; 2008:765.
[3] Basavanthappa BT. Nursing research. I st edition. New Delhi: Jay pee Brother's medical publications; 1998:164-233.
[4] Verolyn B. Basic nursing-a psycho physiologic approach. 3rd edition.U.S.A: Saunders publications; 1994:511-514.
[5] Vandijck DM. Prevention of nosocomial infection: Nursing in critical care. 2010; 255.http://www.Pubmed.com.
[6] Wilma J, Barbara C, Nancy F. Medical surgical nursing. 7th edition. New Delhi: B I Publications; 2001:164-165.
[7] Taylor, Lillis C, Priscilla L. Fundamentals of nursing. 4th edition. U.S.A: Lippincott Publications; 1997:539-541.
[8] San PW. Prevention of nosocomial infection: Medsurg nursing.2004;110.Availablefrom: http://www.Google.com
[9] Lippincott. Manual of nursing practice.7th edition. U.S.A: Lippincott Ravan publications; 1996:955-972.