

# An experimental Study to Evaluate the Effectiveness of Planned Teaching Programme on Knowledge Regarding Prevention of Nosocomial Infection Among Staff Nurses

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## Abstract

An experimental study was conducted to evaluate the Effectiveness of Planned Teaching Programme on knowledge regarding Prevention of Nosocomial Infection among Staff Nurses working in selected hospital at Gwalior. The investigator has selected the experimental evaluative research approach. The study was conducted among Staff nurse of district hospital Morar Gwalior, MP. The random sampling technique was appropriate to the study and sample size was 40. In present study pre test –47.5% Staff Nurses have inadequate knowledge, 37.5% Staff nurses have moderate knowledge, 15% staff Nurses have adequate knowledge. In post test 37.5% Staff nurses have moderate knowledge, 70% staff Nurses have adequate knowledge and it also shows that the staff nurses having improvement in their knowledge. The analysis revealed significant association between the pre test knowledge score with demographic variables like age, qualification clinical experience during staff nurse period at the level of  $p < 0.05$ .

**Keywords:** Staff Nurses; Nosocomial Infection.

## Background of the study

Modern health care has show great progress in preventing and treating infections disease. In developed countries sanitary living conditions, clean water, un contaminated food, vaccinations, and antimicrobial, unhealthy practices develop in health worker can cause death from infections disease. A nosocomial infection also called "Hospital acquired infection". As per WHO- "An infection acquired in hospital by a patient who was admitted for a reason other than that infections. An infection occurring in a patient in a hospital or other health care facility in whom the infection was not present or incubating at the time of admission. This includes infections acquired in the hospital but appearing after discharge, and also occupational infections among staff of the facility.

A prevalence survey conducted under the auspices of WHO is 55 hospitals of 14 countries

representing 4 WHO regions (Europe, Eastern Mediterranean, South-East Asia and western pacific) showed an average of 8.7% of hospital patients had nosocomial infections. At any time, over 1.4 million people world wide suffer from infections complications acquired in hospital. The hospitals in the Eastern Mediterranean and south-East Asia regions (11.8 and 10.0% respectively), with a prevalence of 7.7 and 9.0% respectively in European and Western pacific regions.

Our study in assessing the knowledge and practice of staff nurses is essential to under stand the aseptic procedure what they are doing in the hospital setting. Spread of nosocomial infections happens due to nurses and other health care providers continue to be noncompliant with the guidelines of proper hand hygiene practices. Waste disposal management also responsible for spread of nosocomial infection. Cross infection not only in between patient but also amongst staff nurses s also a result of improper aseptic technique improper waste disposal and deficient barrier nursing

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## Statement of the Problem

An experimental study to evaluate the effectiveness of Planned Teaching Programme on knowledge regarding Prevention of Nosocomial

Infection among Staff Nurses working in selected hospital at Gwalior.

*Accessible population*

Staff nurse district hospital Morar Gwalior, MP.

**Objectives of the Study**

1. Assess the existing knowledge regarding prevention of nosocomial infection among staff nurses working in hospital in terms of pre test knowledge scores.
2. Determine the Effectiveness of STP by comparing pretest and post test knowledge score.
3. Find out the association between the knowledge scores regarding prevention of nosocomial infection and the selected demographic variable.

*Sample technique and sample size*

Random sampling, 40 sample.

*Variable: Independent*

Planned teaching programme.

*Dependent variable*

knowledge.

*Tool*

Structured knowledge questionnaire was used to assess the knowledge about prevention of nosocomial infection.

**Methodology**

*Research approach*

Evaluative approach.

*Method of analysis*

The data was collected from staff Nurses and analyzed and interpreted by descriptive and inferential statistics. Analysis was done on the objectives of the study. Descriptive and inferential statistics.

*Target population*

Staff nurse.

**Table 1:** Distribution Frequency and Percentage by Demographic Profile of Staff Nurses.  
N = 40

S.No.	Category Variables	Frequency	Percentage
1	Age (in year)		
	(a) 20 – 29	13	32.2
	(b) 30 – 39	10	25.0
	(c) 40 – 49	12	30.0
2	(d) Above - 49	5	12.5
	Sex		
3	(a) Male	1	2.5
	(b) Female	39	97.5
4	Position		
	(a) Ward Incharge	12	30
5	(b) Staff Nurse	28	70
	Qualification		
	(a) B.Sc. Nursing	14	35.0
6	(b) Post Basic B.Sc. Nursing	0	0
	(c) GNM	26	65.0
	Experience		
	(a) Less than 5 years	13	32.2
7	(b) 6 – 10 years	12	30.0
	(c) 11 – 15 years	10	25.0
	(d) Above 15 years	5	12.5
	Previous Information		
8	(a) Conference	0	0
	(b) Workshop	12	30
	(c) Text book	13	32.5
	(d) Nursing Journal	15	37.5

**Table 1** shows the frequency and percentage distribution by age that majority of the subjects 13

(32.2%) were between are group of 5 (12.5%) subject were age. The Frequency and percentage distribution

by gender that majority of the subjects 39 (97.5%) were females and only 1 (2.5%) subject were male. The Frequency and percentage distribution by staff nurses in position that majority of the subjects 28 (70%) were Staff Nurses and only 12 (30%) subject were ward in charge. The Frequency and percentage distribution by staff nurses nursing qualification that majority of the Staff Nurses 26 (65.0%) had GNM Education and only 14 (35.0%) had completed B.Sc.

Nursing. The Frequency and percentage distribution by years of experience of staff nurse that most of the subject 13 (32.2%) had less than five years experiences and 5 (12.5%) subjects had more experiences. The Frequency and percentage distribution of Staff Nurses by previous information that most of the subject 15 (37.5%) had information about prevention of nosocomial infection through the nursing Journal and 12(30%) subjects had information through workshop.

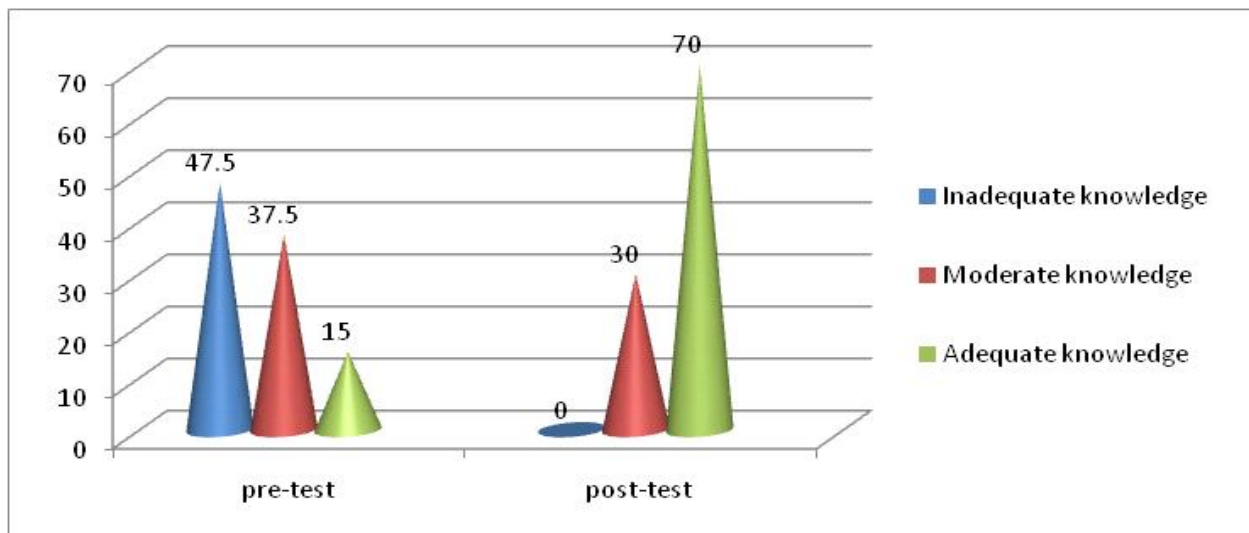
**Table 2:** Distribution of Level of Knowledge on Prevention of Nosocomial Infection Among Staff Nurses Pre Test Knowledge. N = 40

S.No.	Knowledge on Prevention of Nosocomial Infection	Level of Test Knowledge					
		Inadequate knowledge = 50%		Moderate Knowledge = 50-75%		Adequate knowledge above = 75%	
		No	%	No	%	No	%
1	Pre test Knowledge	19	47.5	15	37.5	6	15
2	Post test knowledge	----	----	12	30%	28	70%

The table 2 shows that in pre test –47.5% Staff Nurses have inadequate knowledge, 37.5% Staff nurses have moderate knowledge, 15% staff Nurses have adequate knowledge. Knowledge of prevention of nosocomial infection. It shows that Staff nurses have

Less knowledge about prevention of nosocomial infection. The data is table shows that in post test 37.5% Staff nurses have moderate knowledge, 70% staff Nurses have adequate knowledge and it also shows that the staff nurses having improvement in their knowledge

**Fig 1:** Distribution Percentage Level of Knowledge on Prevention of Nosocomial Infection Among Staff Nurses Pre Test and Post-Test Level of Knowledge.



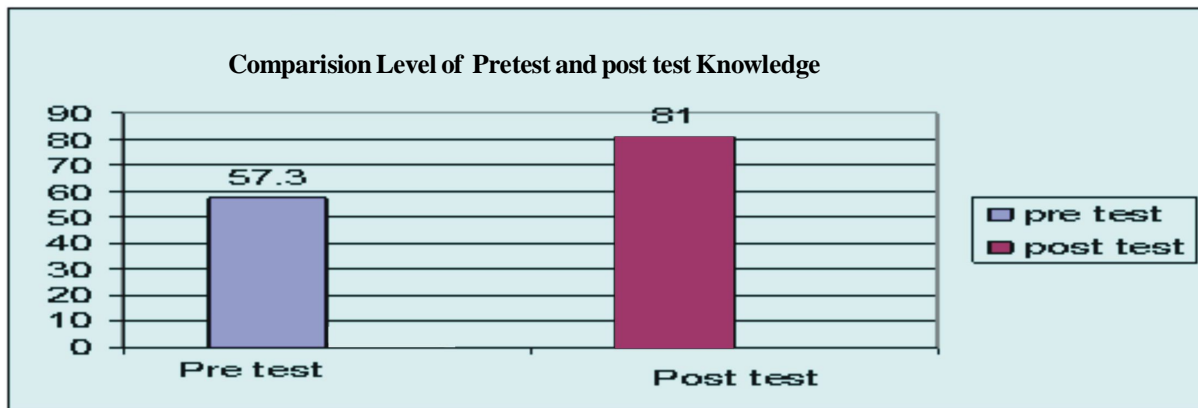
**Table 3:** Effectiveness of Structured Teaching Planned Through Comparison of Pre Test and Post Test Knowledge Among Staff Nurses Regarding Prevention of Nosocomial Infection.

Pre test (x) (%)	Post test (x) (%)	Effectiveness of STP E = (y-x) %
7.3	81	23.7%

Table 3 show that, the mean post test knowledge score 24.3 (81%) of staff nurses regarding prevention of nosocomial infection after structured teaching

planned had significantly higher than the mean pre test knowledge score 17.2 (57.3%) of staff nurses. The effectiveness of structured teaching planned was

**Fig 2 :** Comparison of Pre and Post Test Knowledge Regarding Prevention of Nosocomial Among Staff Nursing.



**Table 4:** Association Between Knowledge With Selected Demographic Variables of Staff Nurses.

Association between the pre test knowledge with selected demographic variable of staff nurses.

S.No.	Variables	Below average	Above average	Chi-square value	df	Calculated Value	Level of Significance
1	Age (in year)			12.32	3	7.82	Significant*
	(e) 20 – 29	1	12				
	(f) 30 – 39	7	3				
	(g) 40 – 49	8	4				
2	Sex			1.12	1	3.84	NA**
	(c) Male	1	0				
	(d) Female	18	21				
	(h) Above - 49	3	2				
3	Position			1.72	2	5.99	NA**
	(c) Ward Incharge	1	4				
4	Qualification			14.06	2	5.99	Significant*
	(d) B.Sc. Nursing	1	13				
	(e) Post Basic Nursing	0	0				
	(f) GNM	18	8				
5	Experience			15.76	3	7.82	Significant*
	(e) Less than 5 years	1	12				
	(f) 6 – 10 years	8	4				
	(g) 11 – 15 years	8	2				
6	Previous Information			5.82	3	7.82	NA**
	(e) Conference	0	3				
	(f) Workshop	9	11				
	(g) Text book	5	6				
	(h) Nursing Journal	5	1				

NA\*\* Non significant, Significant\* at p<0.005 level

found as a significant 23.7% increase in the level of knowledge regarding prevention of nosocomial infection among staff nurses.

From the above table findings revealed that there was statically significant association between the pre test knowledge score with demographic variables like age, qualification clinical experience during staff nurse period at the level of p<0.05 except for gender, position, previous information by using chi-square test hence the research hypothesis stated that there will be significant association between the pre test knowledge score with selected demographic

variables was accepted expect for gender ,position, previous information.

### Conclusion

The present study revealed that most of the subjects 47.5% had inadequate knowledge regarding prevention of nosocomial infection in the pre test while in the post test 30% subjects had moderate knowledge and 70% subjects had adequate knowledge in the post test. Hence the above findings indicate that the planned teaching programme was

effective in increasing the knowledge of the subject regarding prevention of nosocomial infection, and it was found to be appropriate, effective and can motivate the staff nurses to enhance their knowledge.

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