



# “A Comparative Study To Assess The Knowledge And Practice Regarding The Prevention Of Hospital Acquired Infection Among Staff Nurses Of Government And Government Hospital In District Fatehbad And Hisar (Haryana)

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## Abstract

Health care associated infection are defined as infection at the time of admission to a health care setting health associated infection are those infection acquired in hospital first appear in 48 hours or more after hospital admission within 30 days after discharge. A comparative study to assess the knowledge and practice regarding the prevention of hospital acquired infection among staff nurses of Government and government hospital in District Fatehabad and Hisar Haryana.

**Materials and Methods:** A descriptive design was taken for this study. the study was conducted in government and government area district, Fatehbad and Hisar Haryana. The sample size was 60 staff nurses for each for separate hospital for comparison between two groups. The tool for data collection is self structured questionnaire and observational checklist. The collected data were tabulated and analysed by descriptive and inferential statistics.

## Results:

There was significant difference in overall mean knowledge score and practice score between the staff nurses of government hospital Hisar and govt hospital fatehbad regarding the prevention of hospital acquired infection, the obtained “t” value 6.707 ( $P < 0.05$ ,  $df = 58$ ) was greater than the table value at 0.05 level of significance. There was significant difference between the mean knowledge and practice score of the staff nurses of government hospital hisar and govt hospital fatehbad . The obtained “t” value 4 of the government hospital hisar was greater than the table value at 0.05 level of significance and the obtained “t” value 2.523 of the govt hospital fatehbad was greater than the table value at 0.05 level of significance. There was significant association between the age of the staff nurses and the level of knowledge regarding the prevention of hospital acquired infection ( $\chi^2 = 10.671$ ,  $P < 0.05$ ,  $df=3$ , “t” value= 7.82 and  $\chi^2 = 6.696$ ,  $P < 0.05$ ,  $df= 2$ , “t” value= 5.99). There was significant association between the area of practice of the staff nurses and practice regarding the prevention of hospital acquired s infection ( $\chi^2 = 16.5$ ,  $P < 0.05$ ,  $df= 6$  “t” value= 12.59).

**Conclusion:** In comparison of knowledge and practice staff nurses of both hospital, staff nurses of government hospital of Hisar Haryana had more knowledge than practice, whenever staff nurses of govt. hospital fatehbad haryana had more practice than knowledge.

**Keywords:** comparative, Assess, Association, knowledge ,pratices , staff nurses ,Hospital Acquired Infection.

## INTRODUCTION

hospital acquired infection is infection that is neither present nor incubating at the time the patient come to the health care facility (hospital).<sup>1</sup> Healthcare Safety Network (NHSN) was established with the purpose of integrating and succeeding previous survey<sup>2</sup>. Hospital-Acquired Infection is, “an infection acquired in hospital by a patient who was admitted for a reason other than that infection. This includes infections acquired in the hospital but appearing after discharge and also occupational infections among staff of the facility”.<sup>3</sup> In other words nosocomial infections are those infections acquired in hospital or healthcare service unit that first appear 48 hours or more after hospital

admission or within 30 days after discharge following in-patient care.<sup>4</sup>

## METHODOLOGY

Research methodology is a plan of research study that give guidelines that gives guidelines ,the research study process and enables in the ststemic data collection logical data organisation. Evaluative research approach will be considered appropriate for the present study. The research design adopted for the study is descriptive reserch design. the sample size was 60 .the study was conducted in Govt hospital of Fatehbad and Hisar. In this study non probability convenient sampling technique was adopted to select the sample.

## RESULT

Distribution of demographic variables of the sample shows, in government hospital of hisar

the large number 10(33.33%) of the subjects belong to 31-35 years, 5(17%) belong to 21-25 years, 8(26.7%) belong to 26-30 years and 7(23.30%) belong to 36-40 years of age. 2(6.70%) subjects were male and 28(93.30%) subjects were female. Large number of staff nurses 17(56.70%) staff nurses were BSc nursing, 13(43.30%) staff nurses were GNM and no staff nurses were MSc nursing. Majority 30(100%) staff nurses belong to government hospital. Majority 8(26.70%) staff nurses belong to medical ward and operation theatre, 7(23.30%) staff nurses belong to surgical ward and 7(23.30%) staff nurses belong to emergency. Majority 11(36.70%) staff nurses have 1-5 years and more than 10 years' experience, no staff nurses have less than 1 year experience and 8(26.70%) staff nurses have 6-10 years' experience. In govt Fatehbad hospital, 20(66.66%) subjects belong to 21-25 years, 7(23.33%) belong to 26-30 years, 3(10.0%) subject belong to 31-35 years and no subject belong 36-40 years. Majority 20(66.66%) of subjects were female and 10(33.33%) subject were male. Majority 22(73.33%) of staff nurses were GNM, 8(26.66% staff nurses were BSc nursing and no staff nurses were MSc nursing. Majority 30(100%) staff nurses belong to private hospital. Majority(43.33%) of staff nurses working in medical ward, 12(40%) staff nurses working in surgical ward and no staff nurses working in emergency.

Also majority 19(63.33%) staff nurses have 1-5 years' experience, 8(26.66%) staff nurses have less than 1 year experience, 3(10%) staff nurses have 6-10 years' experience and no staff nurses have more than 10 years' experience. The present study reveals that 0% staff nurses have inadequate knowledge regarding the prevention of nosocomial infection, 50% staff nurses have moderate knowledge and 50% staff nurses have adequate knowledge. The mean knowledge score of the staff nurses was 16.433, SD 1.695 and mean% 74.695% regarding the prevention of hospital acquired infection. The study reveals that 10% staff nurses have poor practices, 83.3% staff nurse have average practices and only 6.7% staff nurses have good practices regarding the prevention of Hospital acquired infection. The mean practice score of the staff nurses was 8.133, SD 1.775 and mean% 54.22% regarding the prevention of Hospital acquired infection. This study reveals that 0.0% staff nurses have poor practices 36.7% staff nurses have average practices and 63.3% have good practices regarding the prevention of nosocomial infection. The mean practice score was 10.667, SD 1 and mean% of the practice score was 66.21% of the staff nurses of govt hospital fatehbad hospital regarding the prevention of hospital acquired infection. The present study reveals that the mean knowledge score of the staff nurses of

government hospital Hisar have 16.433 and standard deviation 1.695. the mean knowledge score of the staff nurses of govt hospital Fatehbad have 14.5667 and standard deviation 2.16. It is evident that the obtained “T” value 3.723 is greater than the table value at 0.05 level of significance. Therefore t value is found to be significant. Therefore there is significant difference between knowledge of the staff nurses of government hospital Hisar and govt hospital Fatehbad regarding the prevention of nosocomial infection. This study reveals that the mean practice score of the staff nurses of government hospital was 8.133 and standard deviation 1.775. The mean practice score of the staff nurses of govt hospital fatehbad was 10.667 and standard deviation 1. It is evident that the obtained “t” value 6.707 is greater than the table value at 0.05 level of significance. Therefore t value is found to be evident and there is significant difference between the practice score of the staff nurses of government hospital Hisar and govt hospital fatehbad regarding the prevention of hospital acquired infection. It is evident that statistical outcomes of association

between socio demographic characters of staff nurses of government hospital Hisar and govt hospital Fatehbad with their knowledge regarding the prevention of Hospital acquired infection. In order to examine the association between these variables the chi square test was worked out. The age of the staff nurses of government and govt hospital was found to be statistically significant whereas other characters were not found to be statistically significant i.e.  $p > 0.05$ . It is evident that knowledge is influenced by age but not influenced by gender, professional education, type of hospital, area of practice and clinical experience. In this study it is also evident that statistical outcomes of association between socio demographic characters of staff nurses of government hospital hisar and govt hospital fatehbad with their practice regarding the prevention of hospital acquired infection. In order to examine the association between these variables the chi square test was worked out. The area of practice of the staff nurses of government hospital was found to be statistically significant whereas other characters were not found to be statistics.

Association Of Knowledge Scores of Government Hospital Hisar with Selected Socio-Demographic Variables									
Variables	Options	Inadequate	Moderate	Adequate	Chi Test	P Value	df	Table Value	Result
Age	21- 25 years		2	3	10.671	0.014	3	7.82	Significant
	26- 30 years		3	5					
	31- 35 years		1	6					
	36- 40 years		9	1					
Gender	Male		1	1	0	1	1	3.84	Not Significant
	Female		14	14					
Professional Education	GNM		7	6	0.136	0.713	1	3.84	Not Significant
	BSc. Nursing		8	9					
	MSc. Nursing		0	0					
Type of Hospital	Government		15	15	NA				
	Private		0	0					
Area of Practice	Medical		4	4	5.357	0.147	3	7.82	Not Significant
	Surgical		2	5					
	Emergency		6	1					
	Operation Theatre		3	5					
Clinical Experience	Less than 1 year		0	0	7.227	0.27	2	7.82	Not Significant
	1 -5 years		3	8					
	6 - 10 years		3	5					

Association of Knowledge Scores of Govt Hospital Fatehbad with Selected Socio-Demographic Variables									
Variables	Options	Inadequate	Moderate	Adequate	Chi Test	P Value	df	Table Value	Result
Age	21 - 25 years		15	5	6.696	0.035	2	5.99	Significant
	26 - 30 years		2	5					
	31 - 35 years		3	0					
	36 - 40 years		0	0					
Sex	Male		5	5	1.875	0.171	1	3.84	Not Significant
	Female		15	5					
Professional Education	GNM		16	6	1.364	0.243	1	3.84	Not Significant
	BSc. Nursing		4	4					
	MSc. Nursing		0	0					
Type of Hospital	Government		0	0	NA				
	Private		20	10					
Area of Practice	Medical		8	5	3.124	0.197	2	5.99	Not Significant
	Surgical		10	2					
	Emergency		0	0					
	Operation Theatre		2	3					
Clinical Experience	Less than 1 year		7	1	2.22	0.329	2	5.99	Not Significant
	1 -5 years		11	8					
	6 - 10		2	1					

	years								
	More than 10 years		0	0					

### Comparison of knowledge score of the government hospital Hisar and Government hospital Fatehbad

CRITERIA MEASURE OF KNOWLEDGE SCORE		
Score Level	Government hospital Hisar	Government hospital Fatehbad
Inadequate (0-8)	0(0.0%)	0(0.0%)
Moderate (9-16)	15(50%)	20(66.67%)
Adequate (17-22)	15(50%)	10(33.3%)

### Comparison of practice score of the government Hospital Hisar and government hospital Fatehbad.

CRITERIA MEASURE OF PRACTICE SCORE		
Score Level	Government hospital Hisar	Government hospital Fatehbad
Poor (0-5)	3(10%)	0(0%)
Average (6-10)	25(83.3%)	11(36.7%)
Good (11-15)	2(6.7%)	19(63.3%)

## DISCUSSION AND CONCLUSION

The results of the study show that staff nurses of government hospital Hisar have more knowledge than the staff nurses of govt Hospital fatehbad hospital whereas staff nurses of govt hospital fatehbad have more practices than the staff nurses of government hospital hisar. This study also concluded that in comparison of the knowledge and practices, staff nurses have more knowledge than practices.

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