Research Article

Assessment of knowledge and practice to control nosocomial infection, among the staff nurses, hi-tech medical college and hospital

Abstract

A nosocomial infection is that which is acquired in a hospital or other health care agency. This study was undertaken to assess the knowledge level and practice f the staff nurses to control nosocomial infection. A quantitative survey approach with non-experimental descriptive design was undertaken for this study. The sample size was 50 and convenient sampling technique was used. Data was analyzed by using descriptive and inferential statistics. Table 1 shows the demographic characteristics of the staff nurses. Tables 2 & 3 reveals the association between knowledge, practice and selected demographic variables which was significant at 0.05 level.

Keywords: knowledge, practice, staff nurse, nosocomial infection

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Introduction

The term "Nosocomial" is taken from the Greek word "nosocomium" meaning health care facility. A nosocomial infection is one that is acquired in a hospital or other health agency. A hospital is one of the most likely places for acquiring an infection because it harbours a high population of virulent stairs of micro-organism that are usually resistant to antibiotics. Nosocomial infections not only extend hospital care for the patient, but also increase cost for both patient and hospital.[1] Nurses have an important role in preventing and controlling the nosocomial infection in the hospital. So, this study was undertaken to assess the knowledge and practice of the staff nurses.

Objectives

a. To assess the knowledge of staff nurses about nosocomial infection.

b. To assess the practice of staff nurses to control nosocomial infection

c. To associate the knowledge and practice with selected demographic variables.

Hypothesis

H_1-There is significant association between level of knowledge, practice and selected demographic variables.

Inclusion criteria

i. Registered staff nurses.

ii. Nurses who are willing to participate.

Theoretical framework

Theoretical framework selected for the study is based on pender's health promotion model. In 1982, pender's health promotion in nursing practice was published with the concept of promoting optimal health superseding disease prevention.[2]

According to pender, the health promotion identifies cognitive perceptual factors in the individual that are modified by situational, personal and interpersonal characteristics to the result in participation of health promotion in the presence of a cue to action. In the present study, the cognitive perceptual factors are the staff nurses knowledge about control of nococomial infection in terms of importance of health and healthy behavior.[3]

Methodology

Approach and design

A quantitative survey approach with non-experimental descriptive design was undertaken.

Setting of the study

The study was conducted in the in-patient department of medicine wards of Hi-Tech Medical College and Hospital, Bhubaneswar.

Sample and sampling technique

The samples were the staff nurses. The sample size was 50and the convenient sampling technique was used.

Research tool and technique

The data was collected using two standardized tools. Part-A consisted of socio demographic and clinical data. Part-B consisted of questionnaire (25 questions) for the purpose of assessing knowledge of the staff nurses. The practice was assessed by dichotomous questions with "Yes" and "No" response. Yes carries "I" mark and No carries "O" mark.
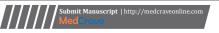
Scoring procedure

Good → 17-24

Average → 9-16

Poor → 1-8

Ethical consideration

Before the commencement of the task of data collection,

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permission was taken from the administrative authorities. Also, permission was obtained for the sample who was willing to participate in the study. Explanation was given regarding the purpose of the study. Confidentiality was ensured. The individual participant has the right to leave the study at any time without assigning any person.[4]

Results and discussion

Sample characteristics in frequency and percentage

The data were collected using demographic proforma. Frequency and percentage were computed for describing the sample characteristics. Majority (n=44, 88%) staff nurses were females, 48% (n=24) were in the age group of 31-40 years. Majority 52% (n=26) were educated up to B.Sc. (N) and 48% (n=24) were G.N.M. No one is there with M.Sc. (N) qualification Table 1.

The knowledge level was assessed by questioning and was classified as good, average and poor. The score from (17-24) was marked as good, (9-16) was average and (1-8) was poor. The percentage distribution of the staff nurses by knowledge score showed that majority (50%, n-25) had good knowledge, (44%, n=22) had average knowledge and (6%, n=3) had poor knowledge.[5]

The practice about the management of nosocomial infection was assessed by dichotomous questions with "Yes" and "No" response. The percentage distribution showed that 50% (n=25) were practicing the management while educating the patients, and also attendants, for 23 (46%) the management was average and 6% (n=03) were hesitant in practicing or neglecting their work due to ignorance.[6]

Analysis of knowledge, practice and selected demographic variables like sex, age, educational qualification shows that Tables 2 & 3 reveals the association between knowledge practice and selected demographic variables which was significant at 0.05 level.

Table 1 Demographic characteristics of staff nurses

Variables	Characteristics	Frequency	Percentage
Sex	Male	6	12
	Female	44	88
Age in years	21-30	4	8
	31-40	24	48
	41-50	20	40
	51 & above	2	4
Education	G.N.M	24	48
	B.Sc. (N)	26	52
	M.Sc. (N)	0	0

(N=50).

Table 2 Relationship knowledge about nosocomial infection and selected demographic variable

Variables	Poor knowledge (1-8)	Average knowledge (9-16)	Good knowledge (17-24)	df	K² Cal.	Table value X² 0.05
Sex						
Male	0	2	4		76.1	5.31
Female	3	24	21	2		
Age in years						
21–30	0	2	4			
31–40	1	8	14			
41–50	2	11	6	6	28.2	12.22
51 & above	0	1	1			
Education						
G.N.M	1	11	12	4	51.7	9.41
B.Sc	0	12	13			

(n=50); (X) Significant at 0.5 level

Table 3 Relationship practice of management for nosocomial infection and selected demographic variable

Variable	Poor (1-8)	Average (9-16)	Good (17-24)	df	K² cal	Total value X² 0.05
Sex						
Male	0	3	3		82.1	3.81
Female	2	20	22	2		
Age in years						
21 – 30	0	3	5			
31 – 40	1	8	9			
41 – 50	2	10	9	6	36.2	7.51
51 & above	0	2	2			

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Variable	Poor (1-8)	Average (9-16)	Good (17-24)	df	K^2 cal	Total value X^2 0.05
Education						
G.N.M	1	11	12			
B.Sc.(N)	1	12	13	4	14.2	5.81

N=50; X significant at 0.05 level.

Acknowledgement

Conflict of interest

The author declares no conflict of interest.

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