e - ISSN – 2349-0683

Asian Pacific Journal of Nursing

Journal homepage: www.mcmed.us/journal/apjn

A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING INFECTION PREVENTION AND CONTROL AMONG STAFF NURSE AT SELECTED HOSPITAL OF JODHPUR WITH A VIEW TO DEVELOP SELF-INSTRUCTIONAL MODULE

Sapna[*1] and Mohammed Rizwan[2]

M.Sc. Nursing, Medical Surgical Nursing-Critical Care, Mai Khadija Institute of Nursing Sciences, Jodhpur, Rajasthan, India.

ABSTRACT

Introduction: Infection prevention and control (IPC) is a scientific approach and practical solution designed to prevent harm caused by infection to patients and health workers. It is grounded in infection disease, epidemiology, social science and health system strengthening. Various studies have should that the staff nurse due not having knowledge regarding infection prevention and control. In this study, administrating self-instructional module among staff nurse is an attempt to improve the knowledge regarding infection prevention and control. Aim of the Study: Assess the knowledge regarding infection prevention and control among staff nurse. Meterial And Method: A descriptive study was carried out to assess the knowledge of 60 nurses selected by purposive sampling, who were workers in different hospital in Jodhpur Rajasthan were assessed by using a structured knowledge questionnaire and analyzed by using descriptive and inferential statistics were used for data analysis. Result: The findings of the study reveals that to the level of knowledge shows that majority (65%) of the sample had average knowledge followed by 18.33% had good knowledge and remaining (16.66%) sample had poor knowledge regarding infection prevention and control .However the majority of the demographic variables such as age, gender, religion, qualification, income, experience, designation, and training were found not significant association with the level of knowledge regarding infection prevention and control staff nurses except working area and marital status. Conclusion: It can be concluded that staff nurse have average knowledge regarding infection prevention and control per current research recommendations. They require education and to enhance their knowledge regarding infection prevention and control. Administrating self-instructional module to improve the knowledge regarding infection prevention and control among staff nurse.

Key words: Knowledge, Staff Nurse, Infection prevention and control, self-instructional module.

Corresponding Author

Sapna
Email:- sapnasharma8559956339@gmail.com

Article Info

Received 12/05/2020; Revised 20/05/2020
Accepted 28/06/2020

INTRODUCTION

Infection in hospital is a serious problem of the health globally and is one of the most prevalent reasons of high mortality in developing countries. Hospital associated infection in India includes, surgical site infection, urinary tract infection, blood stream infections, ventilator associated pneumonia, central line associated infections and respiratory infection etc. In India the incidence of hospital associated infection has been increasing day by day so the government of India is contributing 1.4% of GDP on health care for facing this problem only.

In Indian study conducted on 203 health care professionals in Pune (India) reported that 85% of nurses did not apply the universal safety protocol. It is also reported that improper hand hygiene by healthcare workers is responsible for about 40% of HAIS. The hospital associated infection is high in India because wide variety of reason such as inadequate knowledge and bad practices, lack of training session for infection controls

practice, Inadequate resources, poor staffing, and poor infrastructure, nurses are unaware about infection control practice.

In Rajasthan at the SMS Hospital, Jaipur (2017) show that 10% to 18% patients admitted to the ICU get HAIs. If a patient is admitted to the hospital with some health-related problems, there are considerable chances of him acquiring infections from the hospital. Some of the major micro-organisms found in ICUs are Staphylococci, Streptococci, E.coli, Klebsiella and Pseudomonas. When a patient admitted in the hospital are the source of infection (patient with infectious disease) and a host for infection (immune compromised or immune suppressed or non-infection patient). So here the transmission of infection is very common. Infection which is getting during the period of hospitalization from 48 Hours of admission to 30th day of post hospitalization is known as nosocomial or Hospital Acquired infection [1].

To achieve target knowledge about infection prevention and control among staff nurse are the most important factor. Nurses are unaware about infection control practice and its importance during handling and taking care of the patients. The previous experience and the review of literature concerned recommended that there is strong need to upgrade nurse's knowledge. Hence the researcher felt the need to assess the level of knowledge of infection prevention and control among staff nurses and felt the need to prepare as well as administer the instructional intervention planned teaching programme, which will be certainly helpful in upgrading the knowledge and developing skill of nurses regarding infection prevention control which will help to reduce the complications in the future [2].

Objectives of the Study

To assess the knowledge regarding infection prevention and control among staff nurse. To find out the association between the knowledge regarding infection prevention and control and selected demographic variable among staff nurse. To develop self-instructional module on infection prevention and control.

Hypothesis of the Study

H_1: There is a significant association between the level of knowledge regarding infection prevention and control and socio-demographic variables among staff nurses [3].

Operational Definition

Knowledge

In this study, knowledge refers to what is known about infection the correct responses obtained by staff nurses regarding infection prevention and control through administration of structured knowledge questionnaire.

Infection prevention and control

In this study, infection prevention and control refers to the practices which are reduce and prevent cross infection.

Staff nurses

In this study, refers to the registered nurses with diploma or degree qualification and have minimum one year experience at selected hospitals in Jodhpur.

Self-instructional module (SIM)

In this study, it refers to the educational tool prepared by the researcher to generate the Self-instructional module on infection prevention and control for staff nurses.

Assumption

Staff nurse may have some knowledge regarding infection prevention and control. Staff nurse knowledge regarding infection prevention and control can be improved by administrating self-instructional module.

Delimitation

The study was delimited to assess the knowledge among staff nurse residing in Jodhpur.

RESEARCH METHODOLOGY

Quantitative research approach is considered appropriate for the present study.

Research Design

Descriptive survey design was adopted for this study.

Research Variable

Research variables are those variables which are observed a measured in natural setting as they exist without any manipulation. In the descriptive study no last effect relationship is examined. In my study the research variables is the knowledge regarding infection prevention and control.

Demographic variables

Demographic variables are the characteristic and attributes of the study sample. In my study the demographic variables is age, gender, religion, marital status, qualification, monthly income, clinical experiences, working area, designation and training of infection prevention and control [4].

Population

Staff nurses working in Shriram multispecialty hospital and surgical center, Vasundhara hospital and fertility research centre, Jodhpur

Sampling Size

In this study, the sample consists 30 sample from Shriram multispecialty hospital and surgical center and

also 30 sample from Vasundhara hospital fertility and research centre in Jodhpur.

Sampling Technique

Non-probability purposive sampling technique was used for this study.

Reliability of the Tool

The reliability was established by using Cronbach's Alpha Coefficient formula and it is found to be reliable (r = 0.71).

Major Finding of the Study

Table 1 Depicted that of nurses participated in the study, age 21-30 (46, 76.67%), gender male (38, 63.34%), religion Hindu workers (45, 75%), marital status more than married (40, 66.66%), Qualification in Nursing diploma (39, 65%), monthly income 5000-10,000 (28, 46.66%), Clinical Experience (in yr.) 1-5 (39, 65%), working area OT (19,31.60%), designation staff nurse (50, 83.34%) and any training regarding prevention and control yes (47, 78.40%).

Table 2 Depicted that the majority (65%) of the staff nurses' level of knowledge was average with mean ± SD is 21.37±8.8 regarding infection prevention and control.

Table 3 Depicted shows that the knowledge score of staff nurses according to the different aspect of the infection prevention and control knowledge was highest (84.2%) regarding the "meaning of hospital acquired infection" with the mean 4.21±0.83 followed by 77.75% regarding the "standard precaution" with the mean 3.11±1.08, 66.25% regarding "mode of transmission" with the mean 2.65±0.85, 65% regarding "isolation" with the mean 1.30±55%, 57.66% regarding "biomedical waste management" with the mean 1.73±0.79, 57% regarding "causes of hospital acquired infection" with the mean 1.71±0.81. 55.66% regarding "sterilization and disinfectant" with the mean 1.67±0.92, 52.66 regarding "common health acquired infection" with the mean 1.58±1.03, 45.75% regarding "Methicillin–resistant staphylococcus aurous" with the mean 1.83±0.91 and lowest (39.5) in regarding "Surveillance and Outbreak investigation" with the mean 1.83±0.93. The overall knowledge score with the mean 21.37±8.8 and mean percent knowledge of 60.14%.

Based on the finding we can concluded that the knowledge score of staff nurses according to the different aspect of the infection prevention and control have been moderate in all the aspect of the infection prevention and control knowledge.

Table 1: Frequency and percentage distribution of demographic variables among staff nurse (N=60)

S. No	Socio-demographic variable		Frequency	Percentage
1	Age	21- 30	46	76.67%
		31-40	10	16.67%
		41-60	04	6.66%
2	Gender	Male	38	63.34%
		Female	22	36.66%
3	Religion	Hindu	45	75.00%
		Muslim	10	16.66%
		Christian	05	8.34%
4	Marital status	Unmarried	20	33.34%
		Married	40	66.66%
5	Qualification in Nursing	Diploma	39	65.00%
		Graduation	21	35.00%
6	Monthly Income (in rupees)	5,000-10,000	28	46.66%
		10,000-20,000	25	41.66%
		20,000-30,000	07	11.67%
7	Clinical Experience (In Year)	1-5	39	65.00%
		5-10	15	25.00%
		Above 10	06	10.00%
8	Working Area	Ward	15	25.00%
		ICU	15	25.00%
		OT	19	31.60%
		Emergency	04	6.70%
		CCU,NICU	07	11.70%
9	Designation	Staff Nurse	50	83.34%
		Nurse in charge	10	16.66%
10	Any Training regarding the infection prevention and control was attended	Yes	47	78.40%
		No	13	21.60%

Table 2. Level of knowledge regarding infection prevention and control (N=60)

Level of Knowledge	Frequency	Percentage
Poor (≤ 50 %)	10	16.66%
Average (51-75 %)	39	65.00%
Good (> 75 %)	11	18.33%
Total	**60**	**100%**

Table 3. Aspect wise Mean knowledge scores regarding Infection prevention and control among staff nurse (N=60)

S. No.	Knowledge Aspects	Max. Possible Score	Respondents Knowledge		
			Mean	SD	Mean (%)
1	Meaning of hospital acquired infection	5	4.21	0.83	84.2%
2	Causes of hospital acquired infection	3	1.71	0.81	57%
3	Mode of transmission	4	2.65	0.85	66.25%
4	Common health acquired infection	3	1.58	1.03	52.66%
5	Standard precautions	4	3.11	1.08	77.75%
6	Isolation	2	1.30	0.55	65%
7	Sterilization and disinfectant	3	1.67	0.92	55.66%
8	Biomedical waste management	3	1.73	0.79	57.66%
9	Surveillance and Outbreak investigation	4	1.58	1.03	39.5%
10	Methicillin –resistant staphylococcus aurous	4	1.83	0.91	45.75%
11	**Total**	**35**	**21.37**	**8.8**	**60.14%**

DISCUSSION

The hypothesis made in the study is there is significant association between the level of knowledge regarding infection prevention and control with selected socio- demographic variables among nurses at the level of $P < 0.05$. The study findings reveal that the majority of the demographic variables such as age, gender, religion, qualification, income, experience, designation, and training were found not significant association with the level of knowledge regarding infection prevention and control staff nurses except working area and marital status.

The above finding of this study is supported by studies which is conducted by Sharma A.K. (2018), Narasimhaiah J. and Moorthy P. (2018), Kumar V. (2017), Kalyani R. and V. (2016), Potdar N. and Shinde M. (2016), Rahman M.S, Khan A.M. et al. (2016). Study finding demonstrate that the nurses had inadequate knowledge regarding infection prevention and control.

The two assumptions were made in this study. The first one was the finding of the study reveals that staff nurses have average knowledge regarding infection prevention and control [3-6].

The second assumption was staff nurse knowledge regarding infection prevention and control can be improved by administrating self-instructional module.

CONCLUSION

The finding raised concerns about all aspects of infection prevention and control. A considerable average knowledge about various aspects of infection prevention and control. However, it was use of administrating self-instructional module can improve knowledge of staff nurse. This study has made some progress in establishing the current status of staff nurse regarding infection prevention and control and is able to provide a framework for developing staff nurse for future practice.

REFERENCES

1. Sharma A.K. (2018), A Pre Experimental study to assess the effectiveness of structured teaching programme Knowledge and practice regarding nosocomial infection among the staff nurses in selected hospital at Jaipur, Rajasthan Vol.8, No.2231-1149.
2. Chisanga C.P. (2017), Knowledge, Attitude and Practices of nurses in infection prevention and control within a tertiary hospital in Zambia. Stellenbosch University. Available from https://pdfs.semanticscholar.org/
3. Somaiah P.T.,Mallappa, (2016), A Study on needs assessment of infection control practices at a district hospital in southern india, using kayakalp too"l Ntl J Community Med, Vol.7,No.816-819
4. Yallew W.W. (2017), Hospital acquired infection and infection prevention practices in teaching hospital in the Amhara regional state, Ethiopia. ababa university , ethopia Available from http://etd.aau.edu.et
5. Bhattacharyya S, Gurjar N.M, Battacharjee T. (2017), "Effectiveness of structured teaching programme on knowledge and practice regarding prevention of nosocomial infection among staff nurse" IJNH, Vol. (3),No.146-156.

6. Aby. A.R. (2015), "A Study to assess the effectiveness of structure teaching programme regarding knowledge on nosocomial infection in New-born Among staff nurse working in labour and pediatric units of selected hospital in Tumkur district" Vol.3,No.(110-119). Available from www.researchpublish.com