Available online on 25.08.2019 at http://jddtonline.info

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

Open Access Research Article

A study to assess the effectiveness of a self-instructional module on prevention and control of nosocomial infection in terms of knowledge and practice among staff nurses working in surgical unit of the Civil hospital, Ahmadabad

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ABSTRACT

Background: Nosocomial infection is also called as 'Hospital Acquired- Infection'. It can be defined as an infection whose development is favoured by a hospital environment, such as one acquired by a patient during a hospital visit or one developing among hospital staff. The nosocomial infection rate is alarming and is estimated at about 30-35 percent of all hospital admissions. Many lives are lost because of the spread of infections in hospitals. Nosocomial infections are important contributors for morbidity and mortality. They became more important public health problem with increasing economic and human impact.

Aims and objective: To assess the knowledge and practice of the staff nurses working in surgical unit of civil hospital Ahmedabad before and after the administration of self-instruction module on prevention of control of nosocomial infection (HAIs). To find co-relation between pre-test knowledge and post-test knowledge.

Material and Methods: This study was conducted using the quasi experimental research approach and research design used was one group pre and post test.30 staff nurses working in surgical unit of civil hospital Ahmedabad are selected by convenient sampling method. Collection tool used on staff nurse was structured knowledge questionnaire and observational checklist

Results: findings revealed that majority of sample (46.66%) were in the age between 21 to 30 years. According to qualification highest percentages (43.33%) belong to G.N.M. Majority had experience between 5 to 7 years (30%). Study findings revealed that the knowledge score of the sample show marked increase as seen in the post-test score of the experimental group indicates that the self-instructional module was effective in improving the knowledge and practice of the samples.

Key words: Nosocomial infection, Prevention, control, staff nurse

Article Info: Received 10 July 2019; Review Completed 13 Aug 2019; Accepted 16 Aug 2019; Available online 25 August 2019

Cite this article as:

Mansuri MU, Mansuri F, A study to assess the effectiveness of a self-instructional module on prevention and control of nosocomial infection in terms of knowledge and practice among staff nurses working in surgical unit of the Civil hospital, Ahmadabad, Journal of Drug Delivery and Therapeutics. 2019; 9(4-s):1224-1225
DOI: http://dx.doi.org/10.22270/jddt.v9i4-s.3946

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INTRODUCTION:

Nosocomial infection is also called as 'Hospital Acquired-Infection', it is derived from the Greek word 'Nosocomial' meaning hospital or hospitalization. It can be defined as an infection whose development is favoured by a hospital environment, such as one acquired by a patient during a hospital visit or one developing among hospital staff. Such infections include fungal, viral and bacterial infections and are aggravated by the reduced resistance of individual patients". Two factors contribute to the occurrence of nosocomial infections[1]. First, concentration of virulent forms of different organisms in the hospital and second is the presence of patients with anatomical and physiological defects.[1] These infections are identified at least 48-72 hours following admission, so infections incubating but not clinically apparent , at least admission are excluded. it may also be within 30 days after discharge.[2]

Hospital-acquired infections add to functional disability and emotional stress of the patient and May in some cases, lead to disabling conditions that reduce the quality of life.

Nosocomial infections are also one of the leading causes of death. The Centers for Disease Control and Prevention has estimated roughly 1.7 million hospital-associated infections, from all types of bacteria cause or contribute to 99,000 deaths each year. Nosocomial infections occur in about 5-10 percent of hospital admissions worldwide. In India, the nosocomial infection rate is alarming and is estimated at about 30-35 percent of all hospital admissions. The most frequent nosocomial infections are surgical wound, urinary tract infections and lower respiratory tract infections. Surgical site infections are the third most common nosocomial infections in surgical patients- accounting for about 24% of the total number of nosocomial infections.[3]

Nurse plays a critical role in preventing and controlling infectious disease. Nurses participate significantly in the prevention process from the initial introduction to nursing care.[4] surgical wards nurses provide advanced critical care to those patients in surgical wards. The patients who are admitted in surgical wards are those having weakened immune system and are more prone to nosocomial infections. Surgical wards nurses can impart high quality care for the patients if they have an increased knowledge about infection control. Aseptic techniques performed by the surgical wards nurses can reduce the mortality rate and increased length of hospital stay.

Objectives of the Study

- To assess the knowledge of the infection before and after the administration of self instruction module on prevention and control of nosocomial infection (HAIs).
- To assess the practice of the staff nurses before and after the administration of self instruction module on prevention & control of nosocomial infection (HAIs).
- To find out the co-relation between pre test & post test of prevention & control of nosocomial infection (HAIs).

MATERIAL AND METHODS

This study was conducted using the quasi experimental research approach and research design used was one group pre and post test. The research setting was the government civil hospital Ahmadabad and the target population was the staff nurses working in surgical unit. 30 samples are selected by convenient sampling method. Data collection tool used on staff nurse was structured knowledge questionnaire and structured observational checklist for practice. Validity of the tools was done by the test re-test method for knowledge questionnaire and by inner ratter reliability method for the observational checklist for practice.

RESULT

Table 1: Mean (%), mean difference (%) and standard deviations of practice scores of samples related to universal of hospital acquired infections

Practice Score	Max Score	Mean (%)	Mean Diff.	S.d	"t" test Calculated	"t" test Tabulated	Level of Significance
Pre test	30	21.19	4.57	2.465	15.530	1.699	Significant
Post test	30	25.76		2.237			

Study findings reveals that out of 30 samples majority of 14 samples (46.66%) were in age group between 21 to 30, 12 samples (40%) were between age group 30 to 40 and 04 samples (13.33%) belongs to age above 40 years. According to qualification, 13 samples (43.33%) were G.N.M., 08 sample (26.66%) Basic B.Sc. (N), 09 sample (30%) Post Basic B.Sc. (N).According to years of experience 09 samples (30%) has clinical experience below 5 years, 09 samples (30%) having experience between 5 to 7 years, 07 samples (23.33%) having experience between 7 to 10 years, 05 samples (16.66%) having experience more above 10 years.

Data presented in table 1 reveals the distributions of the practice Score of sample for practice on prevention and control of hospital acquired infection before and after exposure of self instructional module. Difference of pre test practice and post test practice score was 4.57 which indicates increased in practice score after exposure of self instructional module. The data indicate that the self instructional module mean difference was found to be statistically significant evident from "t" value.

CONCLUSION

From all the above findings, it can be concluded that the samples had poor or average knowledge & practice about prevention and control of nosocomial infection. A self instructional module increased the knowledge and practice score in nurses working in surgical area. This clearly indicates the need of self instructional module to improve the knowledge and practice of the nurses.

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