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Research Paper

Nurses Knowledge Related to Prevention of Nosocomial Infection

Nursing

KEYWORDS : Nurses, Knowledge, Prevention, Nosocomial infection

Priyanka Joshi	Staff Nurses, HIHT Hospital.
Megha Bhaisora	Staff Nurses, HIHT Hospital.
Deepti Rawat	Staff Nurses, HIHT Hospital.
Gargi Sharma	Staff Nurses, HIHT Hospital.
Babita Thakur	Staff Nurses, HIHT Hospital.
Payal	Staff Nurses, HIHT Hospital.
Ruchi	Staff Nurses, HIHT Hospital.
Smita Badwal	Staff Nurses, HIHT Hospital.
Upasana M.Negi.	Staff Nurses, HIHT Hospital.
Mr. Dipti Sorte	Associate Professor, Himalayan College of Nursing, Dehradun.

ABSTRACT

Nosocomial infections, also called "hospital-acquired infections", are infections acquired during hospital care which are not present or incubating at admission. Infections occurring more than 48 hours after admission are usually considered Nosocomial in regard, to this subject the current study based on "Nurses knowledge related to prevention of Nosocomial infection" A qualitative non experimental method was approached & non-experimental descriptive survey design keeping in the view the objective of the study. The objective was to assess the knowledge of staff nurses related to prevention of Nosocomial infections in the selected units of Himalayan Institute Hospital, and to identify the factors influencing knowledge deficit of staff nurses. The non-probability convenient sampling is the technique used for this study. The Demographic data is collected through tool Part A consists of 8 items to collect demographical characteristics (i.e. age, sex, marital status, year of experience, income, source of knowledge) of sample subjects. Part B consists of 25 items with structured questionnaire to assess level of knowledge of staff nurses related to prevention of Nosocomial infection. Part C consists of determination of the factors affecting the knowledge of staff nurses. In this study the demographic characteristics are Age, Sex, Marital status, Income, year of experience source of knowledge. Here the 23.33% (14) are age group of 21 to25,46.66% (28) are age group of 26 to 30, 23.33% (14) are age group of 31 to35, 6.60 % (4) are age group of above 30 age.33.33% (20) are male, 66.66% (40) are female.75.55% (45) are married and 25 %(15) are unmarried. Majority has year of experience 3 to5 yrs i.e. 38.33% (23), 21.66% (13) have 1 to2 yrs. 28.33% (17) has 6 to8 yrs and 11.66% (7) has above 9 yrs experience. The monthly income of 23.33% (14) are at the range of 6000 to 8000, 31.66% (19) are at the range of 9000 to11000, 45% (27) are at range of 12000 to 140088.33% (53) refreshing their knowledge by books, journals and internet, 10% (6) through friends and 1.66 %(1) do not refreshing their knowledge at all. Analysis of the data for level of knowledge of staff nurses related to Nosocomial infection shows that 76.66% (46) has good knowledge, 23.33% (14) has average knowledge and no one has poor knowledge. In this research study the factors affecting the knowledge of subjects (staff nurses) are age, sex, marital status, year of experience, income, source of knowledge and working area. After analyzing the data researcher found that the subjects (staff nurse) above 35 year of age ,sex female, marital status unmarried experience of 1 to 2 yrs and income in the range of 6000 to8000 had more knowledge than other groups those staff working in ICU, Dialysis and OT had good knowledge than other unit staff. The study was implicated through Nursing practice, Nursing Administration, Hospital Administration. The study was much helped at administrative level to modify their strategy towards patient care and improve preventive measures for Nosocomial infection in the Himalayan Hospital Trust, HIHT, SRHU. Dehradun.

INTRODUCTION

A Nosocomial infection — also called "hospital acquired infection" can be defined as:

An infection acquired in hospital by a patient who was admitted for a reason other than that infection[1] 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[2]. Patient care is provided in facilities which range from highly equipped clinics and technologically advanced university hospitals to front-line units with only basic facilities. Despite progress in public health and hospital care, infections continue to develop in hospitalized patients, and may also affect hospital staff. Many factors promote infection among hospitalized patients: decreased immunity among patients; the increasing variety of medical procedures and invasive techniques creating potential routes of infection; and the transmission of drug-resistant bacteria among crowded hospital populations, where poor infection control practices may facilitate transmission. Nosocomial infections occur worldwide and affect both developed and resource-poor countries. Infections acquired in health care settings are among the major causes of death and increased morbidity among hospitalized patients. They are a significant burden both for the patient and for public health. A prevalence survey conducted under the auspices of WHO in 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 worldwide suffer from infectious complications acquired in hospital[3]. The highest frequencies of Nosocomial infections were reported from 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 the European and Western Pacific Regions[4]. The

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most frequent Nosocomial infections are infections of surgical wounds, urinary tract infections and lower respiratory tract infections. The WHO study, and others, have also shown that the highest prevalence of Nosocomial infections occurs in intensive care units and in acute surgical and orthopedic wards. Infection rates are higher among patients with increased susceptibility because of old age, underlying disease, or chemotherapy.

RESEARCH STATEMENT

"A study to assess the knowledge of nursing staff related to the prevention of Nosocomial infections in the selected units of the Himalayan Institute Hospital Trust (HIHT) at Dehradun."

OBJECTIVES

- To assess the knowledge of staff nurses related to prevention of Nosocomial infections in the selected units of Himalayan Institute Hospital.
- To identify the factors influencing knowledge deficit of staff nurses.

HYPOTHESIS

$\mathbf{H_0}$ The staff nurses working in hospital will not have adequate knowledge relation to Nosocomial infection.

$\mathbf{H_1}$ The staff nurses working in hospital may have some knowledge relation to Nosocomial infection

REVIEW OF LITERATURE

The review of literature for the current study was based on following headings:

Literature related to prevention of Nosocomial infection. There was a study done on Nosocomial infection and hospital procedures by Ganguly MD and Yunus khan the aim of the study is to determine the rate of nosocomial infection in post-operative patients and its association with different policies/procedures followed in the hospital. It is hospital based study conducted in surgical wards of J.N. Medical College Hospital, Aligarh. There were samples of 422 patients selected from the patients admitted to the surgical wards during one calendar year. Chi-square test is done to analysis where result shows the overall incidence of nosocomial infection was 38.8%. The study is concluded that certain hospital procedures are significantly associated with post-operative nosocomial infection rate and they can be easily modified to bring down the nosocomial infection rate[5], this help the researcher to find test to analyse the data of current study.

Literature related to knowledge of staff nurses related to prevention of Nosocomial infection. A study done on nursing adherence with evidence-based guidelines for preventing ventilator-associated pneumonia by De Rosa. FG,Michelazzo M ,Pagani N, Di Peeri G, Ranieri VM& Barberis B. (2009).The aim of the study is to review barriers to nursing adherence to no pharmacologic evidence-based guidelines for preventing ventilator-associated pneumonia. Descriptive study design was used and the setting is intensive care units. 110 nurses approached at two critical care nursing meetings: A questionnaire was administered to nurses. The study concluded Nurses had different levels of adherence than physicians for many non-pharmacologic strategies. The most important barriers to implementation were environment-related and other reasons for non-adherence show significant variability between nurse and physician opinion leaders, patient-related barriers being significantly more important for nurse[6]. this study helped the researcher to develop the tool for current study.

LIMITATIONS

The study was limited to the staff nurses of Himalayan Institute of Hospital Trust.

The study was limited to the selected units of Himalayan Institute of Hospital Trust.

VARIABLES

- Dependant Variable: Knowledge of staff nurses.
- Independent Variable: Topic of prevention in Nosocomial infection.
- Descriptive Variables: Age, Sex, Years of experience in clinical area and Economical status.

RESEARCH METHODOLOGY

Research Approach: A qualitative nonexperimental was the research approach.

Research Design: It adopted Non-experimental descriptive survey design.

Sample and Sampling Technique: The sample chosen for the study is staff nurse working in Himalayan Institute Hospital Trust and who fulfil the following criteria for the study. The non-probability convenient sampling is the technique used for this study, Sample size is 50 is decided for this study.

Setting: The present study was conducted in the selected units of Himalayan institute Hospital trust (HIHT) in Dehradun.

Selection criteria:

Inclusive Criteria:

The nursing staff included those who have at least One year experience in Clinical Practice.

GNM Nursing staff will be included in the study.

Nursing staff included those who are working in the wards.

Nursing staff included in the study those who speak English & Hindi well.

Nursing staff are included those who are on day duty.

Exclusive criteria

The nursing staff excluded those who have less than One year experience in Clinical practice.

Nursing staff will be excluded those who are rather than GNM training.

Nursing staff excluded those who are not working in the wards.

Nursing staff are excluded those who are not on day duty.

Data collection method:

In this study the data collection tool was prepared simple and modified according to the objectives of present study, People are more truthful while responding to the questionnaires regarding controversial issues in particular due to the fact that their responses are anonymous[7].So, all the data collected through questionnaire.

Tool Description: - It consists of three parts:

Part A: Part A consists of 8 items to collect demographical characteristics (i.e. age, sex, marital status, year of experience, income, source of knowledge) of sample subjects.

Part B: Part B consists of 25 items with structured questionnaire to assess level of knowledge of staff nurses related to prevention of Nosocomial infection.

Part C: Part consists of determination of the factors affecting

the knowledge of staff nurses. **Data collection procedure:**

Questionnaire was used for data collection procedure which included Multiple Choice Questions and Demographic Data. Staff nurses who are participating in research study was explained by the researcher about the purpose of study and question that are included. The questions are distributed to the staff nurses and half an hour given to them to give the answer of the question

Validity and reliability:
The data collection tool was validated by the expert and it was found that the tool was Valid & reliable.

RESULTS
In this study the demographic characteristics are Age, Sex, Marital status, Income, year of experience source of knowledge. Here the 23.33% (14) are age group of 21 to25,46.66% (28) are age group of 26 to 30, 23.33% (14) are age group of 31 to35, 6.60 % (4) are age group of above 30 age.33.33% (20) are male, 66.66% (40) are female.75.55% (45) are married and 25 %(15) are unmarried. Majority has year of experience 3 to5 yrs i.e. 38.33% (23), 21.66% (13) have 1 to2 yrs. 28.33% (17) has 6 to8 yrs and 11.66% (7) has above 9 yrs experience. The monthly income of 23.33% (14) are at the range of 6000 to 8000, 31.66% (19) are at the range of 9000 to11000, 45% (27) are at range of 12000 to 140088.33% (53) refreshing their knowledge by books, journals and internet, 10% (6) through friends and 1.66 %(1) do not refreshing their knowledge at all. Analysis of the data for level of knowledge of staff nurses related to Nosocomial infection shows that 76.66% (46) has good knowledge, 23.33% (14) has average knowledge and no one has poor knowledge. In this study the factors affecting the knowledge of subjects (staff nurses) are age, sex, marital status, year of experience, income, source of knowledge and working area. After analyzing the data researcher found that the subjects (staff nurse) above 35 year of age ,sex female, marital status unmarried experience of 1 to 2 yrs and income in the range of 6000 to8000 had more knowledge than other groups those staff working in ICU, Dialysis and OT had good knowledge than other unit staff.

CONCLUSION
The Findings of the study was concluded that most of the staff are at the age group of 26 to 38 yrs. Majority of the staff are female. Maximum number of staff had 3 to 5 yrs of experience and majority of the subjects are married. Most of the staff having monthly income 12000 to 14000 and maximum refresh their knowledge through books, journals and internet. The study concluded that majority of the subject (staff) had good knowledge, least had average knowledge and no one shows poor knowledge and subjects (staff nurse) above 35 year of age, sex female, marital status unmarried experience of 1 to 2 yrs and income in the range of 6000 to8000 had more knowledge than other groups and staff working in ICU, Dialysis and OT has good knowledge than other unit staff.

NURSING IMPLICATIONS
The findings of the study have implications for nursing practices, nursing research, nursing staff education and nursing administration.

Nursing Practice:
The study provides useful information regarding the age, sex, social status and the knowledge level of the staff towards Nosocomial infection. Thus the study provided the information that there is the need for improvement in the knowledge level of staff nurses by continuing nursing education (C.N.E.) and carrying out theoretical knowledge related to the patient care and prevention of Nosocomial infection into clinical practice. Organize different programme such as workshop, conferences, exhibitions, seminars related to Nosocomial infection to create and update the knowledge and skills of staff nurses.

Hospital Administration;
The administrative authority of the hospital is need to focus all aspects of hospital care services. Since staff is an important indicator of quality in the health care services. They are need to be provided with various facilities, and supplies to improve quality of knowledge. The first level of management nurses [staff nurses] is the one who provide care, knowledge, education to the patient for his or her welfare so it is necessary that the nurse should have comprehensive knowledge related to patient care and prevention of Nosocomial infections.

Nursing research:-
Very few studies have been conducted on this topic in the Indian setting; therefore there is a need to conduct further research studies in this field. So it is easy to assess what nurses need for their satisfaction regarding to their knowledge, patient care and personal satisfaction and to upgrade the standard of nursing in India.

Nursing Administration:-
The study helps the nurse administrator for supervising the weak points of this project that is the lack of knowledge among nurses of those who are really poor, and for those who are good in knowledge for them placement of the nurse in high dependent area also administrator help them to strengthen the knowledge of poor nurses by putting them in to CNE programmes. Thus it help the overall improvement in nurses of HIHT.

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