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## “A STUDY TO ASSESS THE KNOWLEDGE REGARDING NOSOCOMIAL INFECTION & ITS PREVENTION AMONG STAFF NURSES IN SELECTED HOSPITALS AT SHAHJAHANPUR (U.P). ”

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### ABSTRACT

**Background:** Nurses are the health care professional whose duty it is to protect patients from acquiring infection while in health care hospitalized or while in a health care set up. By maintaining an infection free environment, the patient's recovery will be promoted and high-quality nursing care will be delivered. Nurses spend most of their time with patients. Therefore, they should have a good level of understanding of the knowledge, attitudes and practices in infection prevention and control in health care setups. As these infections occur during hospital stay, they cause prolonged stay, disability, and economic burden.

**Objectives:** To assess the knowledge of staff nurse regarding Nosocomial Infection & its prevention among staff nurses in selected hospital at Shahjahanpur. **Material and Methods:** Quantitative research approach (Cross-sectional descriptive research design) was adopted for the study. Convenient sampling technique was used for data collection and sample size was 50. Tools used for data collection were self structured knowledge questionnaire and sample characteristic. Data was analyzed by descriptive and inferential statistics by SPSS- 20. **Results:** The result of the study revealed that Majority 60% of the participants were having adequate knowledge and 40 % of the participants were having moderate knowledge regarding nosocomial infection and its prevention.

**Key Words:** Knowledge, Nosocomial Infections, Prevention & Staff Nurses.

## INTRODUCTION:

Nurses are the health care professional whose duty it is to protect patients from acquiring infection while in health care hospitalized or while in a health care set up. By maintaining an infection free environment, the patient's recovery will be promoted and high-quality nursing care will be delivered. Nurses spend most of their time with patients. Therefore, they should have a good level of understanding of the knowledge, attitudes and practices in infection prevention and control in health care setups. As these infections occur during hospital stay, they cause prolonged stay, disability, and economic burden. According to extended prevalence of infection in ICU are study the proportion of infected patients within the ICU is often as high as 51%. Based on extensive studies in USA & Europe shows nosocomial infection incidence density ranged from 13.0 to 20.3 episodes per thousand patients days.

Healthcare-related infection have a considerable impact on the morbidity and mortality rates in the intra- and extra-hospital environment, resulting in an increase in the time spent and costs of hospitalization, and are thus recognized as a serious world public health problem.

Infection that was not present before the patient came to a hospital but were acquired by a patient while in the hospital." The word nosocomial comes from the Greek word 'nosokomeion' meaning hospital [Nosos= disease, komeo= to take care of] Nosocomial infections are infection that results from treatment in a hospital or a health care service unit. Infections are considered nosocomial if they first appear 48 hours or more after hospital admission or within 30 days after discharge. Nosocomial infection result from delivery of health service in a health care facility.

Nosocomial infections (Nis), also known as a hospital acquired infection, are defined as infections which are acquired after 48 hours of patient admission. Such infections are neither present nor incubating prior to a patient's admission to a given hospital. Nis represents a universally serious health problem and a major concern for the safety of both patients and the health care providers.

A wide variety of microorganisms are responsible for nosocomial infections including bacteria, virus fungi and mycoplasmas. They almost commonly affect the urinary tract, lower respiratory tract. Surgical wounds, skins and the blood stream. These infections affect patients in a variety of ways from increased discomfort and pain to severe chronic illness, permanent disability and in some cases may cause death. Infection can also lead to extended length of stay of affected patient and increased diagnostic and treatment costs. Therefore, knowledge about nosocomial infections is important to improve infection control measures and to develop effective preventive and curative strategies which, in turn, will help us in decreasing incidence, morbidity and mortality.

Infectious diseases are serious problem to world health. One of the important reasons for high death rate in developing countries is infectious diseases. The term communicable disease also is used in place of infectious diseases, which means that disease can spread from one person to another person.

The number of health care employees having direct contact with a client the type and number of invasive procedures, the therapy received and the length of hospitalization influences the risk of infection. Major sites for nosocomial infection include surgical or traumatic wounds with recent change in health care delivery the concept of nosocomial infections has sometime been expanded to include other health care associated infections including infections acquired in institutions other than acute care facilities e.g. nursing homes, infections acquired throughout patient care such as day surgery, dialysis or home parenteral therapy.

### **NEED FOR THE STUDY:**

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. The highest frequencies of nosocomial infections were reported from hospital.

Nosocomial infections increase patient`s treatment cost, length of hospital stay, morbidity and mortality. Therefore, knowledge about nosocomial infections is important to improve infection control measures as well as to develop effective preventive and curative strategies which, in turn, will help us in decreasing incidence, morbidity and mortality. Effort towards education in terms of training and retraining about standard infection control, as well as strict adherence by health care staff and students to aseptic practice can reduce the extent of these risks. Considering the lack of information regarding student`s knowledge on nosocomial infections and its prevention, this study provides insight into knowledge about nosocomial infection.

In 2002, the estimated number of HAIs in U.S hospital adjusted to include federal facilities was approximately 1.7 million 33,269 HAIs among newborns in high risk nurseries,19,059 among newborns in well baby nurseries, 417,946 among adults and children in ICUs, 1,266,851 among adults and children outside of ICUs. The estimated deaths associated with HAIs in U.S hospitals were 98,987 of these, 35,967 were for pneumonia 30,665 for bloodstream infections, 13,088 for urinary tract infections, 8,205 for surgical site infections and 11,062 for infections of other sites. HAIs in hospitals are a significant cause of morbidity and mortality in the United States.

Nursing professionals play an important role in the prevention and control of hospital infections since they carry out direct contact with the individual, invasive and potentially contaminated procedures, as well as the manipulation of patient equipment, instruments and medications.

The joint commission on accreditation of health care Organization (JACO) and the centers for disease control and prevention (CDC) documented that health care provider`s should follow certain guidelines when caring for clients such as wash hands thoroughly after removing gloves and before and after all client contact, wear gloves when there is direct contact with blood, don`t break or recap needles, discard into puncture-resistant containers and disposal of contaminated items.

Most health care infections are transmitted by health care personal who fail to practice proper hand washing procedures and change gloves between client contacts. Therefore, infection control guidelines from the national and international organization have supported that hand washing remains the most effective measures in reducing the incidence of health care infections. Booker, Waugh, and waston stated that hospitalized patient exposed to infection resulting from a surgical or medical treatment called iatrogenic infection is frequently attributed to an invasive procedure and reported that over 60% of blood infection introduced by intravenous lines or catheter. In addition, it has been reported that the incidence of nosocomial infections in the intensive care unit is about 2 to 5 times higher than in the general inpatient hospital population. Health care infections are considered a major public health problem in both epidemic and endemic from because they are the main causes of morbidity, mortality and economic burden.



### STATEMENT OF THE PROBLEM:

“A study to assess the knowledge regarding Nosocomial infection & its prevention among Staff Nurses in selected hospitals at Shahjahanpur (U.P). ”

### OBJECTIVES:

- To assess the knowledge of staff nurses regarding Nosocomial Infection & its prevention among staff nurses in selected hospital at Shahjahanpur.
- To find the association of level of knowledge scores regarding nosocomial infection and its prevention with their selected demographic variables.

### HYPOTHESIS:

Hypotheses will be tested at 0.05 level of significance

- **H<sub>1</sub>**:-There is a significant association of level of knowledge score regarding nosocomial infection and its prevention with their selected demographic variable.

## MATERIAL AND METHODS:

Quantitative research approach (Cross-sectional descriptive research design) was adopted for the study. Convenient sampling technique was used for data collection and sample size was 50. Tools used for data collection were self structured knowledge questionnaire and sample characteristic. Data was analyzed by descriptive and inferential statistics by SPSS- 20. The conceptual framework used for this study was based on General system Model. The content validity of the tool was obtained from the experts in nursing field. The reliability of the tool was established by karl pearson's formula which (0.75) was found reliable. Feasibility of the study was confirmed by pilot study. The data was organised, analysed and interpreted in terms of the study objectives. The data was summarized and tabulated by using descriptive statistics (Mean, Percentage, Standard Deviation) and inferential Statistics (Chi-square).

**Research variables:** Knowledge regarding nosocomial infection and its prevention among staff Nurse.

**Demographic Variables:** Age in years, Gender, Educational status, Year of professional experience, Area of working & Undergone for any training.

### SAMPLING CRITERIA

**Inclusion criteria:-** Registered nurse working in hospital GNM, B.sc, Post B.sc , M.Sc. qualified nurses involve in direct patient care.

**Exclusion criteria:-**

- Nurses who will not be present at the time of data collection.
- Nurses who will be having previous learning experience of infection control measures.

## RESULTS:

The result of the study showed that 55 % of the participants were belongs to the age group 25-28 years and remaining 45 % were belongs to the age group of more than 35 years. 80 % of the participants were females and remaining 20 % of the participants were males. Majority 85 % of the participants were having experience more than 5 years. The findings of the study revealed that Majority 60% of the participants was having adequate knowledge and 40 % of the participants were having moderate knowledge regarding nosocomial infection and its prevention.

## CONCLUSION:

The study concludes that Staff Nurses were having adequate knowledge regarding Nosocomial Infections & its preventions.

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