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RESEARCH

To Evaluate the Level of Awareness About Nosocomial Infections Among First-year B.Sc. Nursing and GNM Students

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ABSTRACT

In order to create an information module or guide sheet, descriptive research was conducted to gauge first-year BSc (n) and GNM students' understanding of nosocomial infections. Using their demographic information, nursing students' pre-existing level of knowledge about nosocomial infections will be evaluated through an assessment. For this study, a "descriptive" research design was employed. The Rohilkhand School and College of Nursing served as the study's site. One of the main causes of avoidable morbidity and mortality was hospital-acquired infections, which were the subject of the investigation. It is important for students to understand how to avoid and treat nosocomial infections. The information was gathered in order to evaluate the B.Sc. (N) First-year and GNM first-year students about nosocomial infection prevention. Fifty nursing students was the maximum sample size. Twenty-five samples were chosen from first-year BSc (N) students, and twenty-five samples were chosen from first-year GNM students. Descriptive and inferential statistics were used in the analysis and interpretation of the acquired data. The results showed that demographic factors such age, sex, educational attainment, family kinds, and knowledge source did not significantly correlate with one another. Based on the results of the basic investigation, the following conclusions were reached. According to the study's findings, 30 percent of students had inadequate knowledge (scoring below 15), 62% had moderate knowledge (score between 15 and 24), and the majority of 8% had adequate knowledge (score above 25).

Keywords: Hospital Acquired Infection, World Health Organization, Ministry of Health, Center for Disease Prevention and Control, Infection Control Nurse Association, Severe Acute Respiratory Syndrome.

INTRODUCTION

Infection is a condition in which harmful microorganisms, such as parasites, invade and establish themselves either on the surface or inside a host organism, leading to contamination and disease [1].

Nosocomial infections, another name for healthcare-associated diseases, have grown to be a serious problem in recent years. These infections are thought to affect about two million patients each year in healthcare settings. Critical care settings including medical and surgical intensive care units are where they are most commonly seen. The circulation, urinary system, respiratory tract, and surgical wounds are among the most impacted areas,

according to data from the National Nosocomial Infection Surveillance System (NNIS) [2].

The main way that these illnesses are transmitted is by direct contact, either between patients or between patients and medical personnel [2]. Nosocomial infections are infections that are not present or incubating at the time of admission but are obtained during treatment in a hospital or healthcare facility. Usually, they appear within 30 days of discharge or 48 hours or more after admission [2].

MATERIALS AND METHODS

Research Methodology

Methodology refers to a structured, theoretical analysis of research techniques and procedures used in a particular field [3]. It provides a systematic approach for solving research problems by outlining steps for data collection, analysis, and interpretation [4].

Research Approach

The research approach defines the main plan and method for examination. The knowledge of nosocomial infections among first-year B.Sc. Nursing and GNM students at Rohilkhand School and College of Nursing, Bareilly, was evaluated using an evaluative technique in this study [4].

Research Design

For this study, a descriptive design was chosen to investigate the target group's current understanding of nosocomial diseases. Information was obtained from the students using a standardized questionnaire [5].

Setting of the Study

The study was conducted at the Rohilkhand School and College of Nursing in Bareilly. The institution hosts approximately 40 first-year B.Sc. Nursing students and 40–60 first-year GNM students, all of whom gain clinical experience at the 750-bed multi-specialty Rohilkhand Hospital.

Population and Sample

According to Polit and Hungler (2000), the population includes the entire group that meets a set of criteria [6]. For this study, the population comprised all 1st-year B.Sc. Nursing and GNM students enrolled at the institution.

The sample consisted of 50 students selected from this population using a simple random sampling technique. This method ensures that each student had an equal opportunity to be included in the study [7].

Data Collection Method

Data were collected using a structured questionnaire designed to assess students' knowledge of nosocomial infections.

Inclusion Criteria

- Students willing to participate
- Students present during data collection
- Students proficient in English

Exclusion Criteria

- Students unwilling to participate
- Students unable to read or write in Hindi
- Students absent during the data collection phase

DISCUSSION AND CONCLUSION

The current study's objective is to assess first-year BSc Nursing and GNM students' understanding of nosocomial infections. 50 students from Rohilkhand School and College of Nursing Bareilly (U.P.) were chosen for the study group in order to gauge their understanding of nosocomial infections.

This chapter addresses debate in line with the study's goals. The statement of the problem was "A descriptive study to assess the knowledge regarding Nosocomial Infection among BSc (N) 1st year students and GNM 1st year student in Rohilkhand School and College of Nursing Bareilly, U.P. with a view to develop information module / Guide sheet."

Objectives of the Study

- To assess the pre-existing level of knowledge of nursing students regarding Nosocomial Infection.
- To determine the level of knowledge regarding Nosocomial Infection with their demographic data.

The first objective: To determine the level of knowledge regarding Nosocomial Infection with their demographic data.

Age: Frequency distribution of samples according to the age revealed that 82% of population belongs to the age group 17 to 20 years and 18% of the population belongs to the age group 21 to 25 years.

Sex: Frequency distribution of samples according to the sex revealed that 34 % of population belongs to the Male and 66 % of the population belongs to the female.

Educational level: Frequency distribution of samples according to the educational level revealed that 84 % of population shows the 12th pass, 14 % of the population shows to the graduate and 2% of population shows to the post graduate.

Religion: Frequency distribution of samples according to the religion shows that 72% of population indicates Hindu, 6% of the population indicates Muslim, 14% of population indicates to the Christian and 8 % of population belongs to the Sikh.

Diet: Frequency distribution of samples according to the diet shows that 44 % of population refers to the vegetarian, 2% of the population refers to the non-vegetarian, and 54 % of population refers to the Mixed.

Residential area: The frequency distribution of samples by residential area reveals that 44% of the population lives in urban areas and 56% of the population lives in rural areas.

Marital status: Frequency distribution of samples according to the marital status shows that 0 % of population belongs to the Married and 100 % of the population belongs to the Unmarried.

Sources of getting information: Frequency distribution of samples according to the sources of getting information shows that 28% of population refers to the newspaper, 14% of the population refers to the media, 54% of population refers to the internet and 4% of population refers to the radio.

Previous Knowledge: Frequency distribution of samples according to the Previous Knowledge shows that 68 % of population have adequate knowledge and 32 % of the population have inadequate knowledge.

Number of Siblings: Frequency distribution of samples according to the number of siblings revealed that 2 % of population have nil siblings, 16 % of the population have one (1) sibling, 24 % of population have two (2) siblings and 58 % of population have 3 or more siblings.

Duration of physical activity: Frequency distribution of samples according to the duration of physical activity shows that 64 % of population doing activity <30 minutes, 32 % 30-60 minutes and 4 % >60 minutes.

Consumption of fried food: Frequency distribution of samples according to the consumption of fried food shows that 32 % of them consume fried food daily, 22 % once in two days, 36 % weekly and 10 % occasionally.

Family types: The frequency distribution of samples based on family types reveals that 40% of the population is in a joint family and 60% of the population is in a nuclear family.

The second objective: To assess the pre-existing level of knowledge of nursing students regarding Nosocomial Infection.

In pre-test 8 % of respondents had adequate knowledge (score above 25), 62 % of respondents had moderate knowledge (score between 15-24) and 30 % had inadequate knowledge (score below 15).

The chapter represents summary, findings and conclusion which creates a base for researcher for evidence based practice. The aim for the study to evaluate the knowledge regarding nosocomial infection among 1st year students (G.N.M & B.SC nursing) in Rohilkhand School and College of nursing, Bareilly.

There is increasing need for an integrated approach to healthcare. 100% Prevention of nosocomial infection can be achieved by medical system, practice, intervention, applications, theories, or claims that are not currently part of the dominant or conventional medical system.[8]

Major Findings of the Study

The major findings are summarized below:

In pretest 8% of respondents had adequate knowledge (score above 25), 62%of respondent had moderate knowledge (score between 15-24) and 30% had inadequate knowledge (score below 15)

After pre-test, health education is given to the students through card distribution.

On the basis of findings of study, obtained following conclusions:

- From the findings of the study, it is concluded that In pretest 8% of respondents had adequate knowledge score (above 25), 62%of respondent had moderate knowledge score (15-24) and 30% had inadequate knowledge score (below 15).

The study shows that their insignificant association of average knowledge regarding nosocomial infection among the student of B S c nursing 1st year and G.N.M 1st year student, hence the assumption is rejected. Thus the investigator concludes that knowledge regarding nosocomial infection is helpful to prevent future problems associated with nosocomial infection. It proves that students who had knowledge regarding nosocomial infection can prevent the infection associated with nosocomial infection and can provide better care and healthy environment to the patient in hospital setting. The investigator concluded that the planned questionnaires were helpful in assisting level of knowledge of the student (B.sc 1st year and G.N.M 1ST year).

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REFERENCES

[1]. Monica P. Infection controls a Policy and Procedure Manual. Philadelphia WB Sounders Company, 1990.
[2]. Mukerjee AK. Hospital Acquired Infection Guidelines for Control. Government of India, New Delhi, 1992.
[3]. Park K. Text book of Social and Preventive Medicine. Jabalpur, Bharat Publishers, 2000; 82: 137-138.
[4]. Potter and Perry Text book of Fundamental Nursing. 5th edition, Mosby Publishers, 2000.

[5]. Vijaya De Silva Health Care Management, India's first Newspaper for the Health care business, 2004.
[6]. Omisaken FD Nurses knowledge and study about caring for patients with HIV/SAIDS in Orissa state, Niger journal of medicine, 2001; 10.
[7]. Barbara Kozier, Glenora Erb, Andrey Berman, Karen Burke. "Fundamentals of Nursing". 7th edition, Pearson Education Publishers, Singapore, 669.
[8]. Basavantappa B.T. "Fundamentals of Nursing". 1st edition, Jaypee Brothers Publishers, New Delhi, 140.