

A Study to Assess the Knowledge Regarding Prevention of Hospital Acquired Infections among the Nursing Students of a Selected Nursing Institution, Kolkata

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Abstract: By implementing strategies like hand hygiene, maintaining a secure and hygienic healthcare environment, and epidemiological surveillance, healthcare-associated illnesses can be stopped from spreading. The goal of the current descriptive study on Peerless Institute of Nursing is to evaluate their knowledge on how to prevent hospital acquired infections. Eighty nursing students are selected using a convenient sampling method. Data was gathered by a survey using a self-created, validated questionnaire. The majority of nursing students (85%) have a mediocre understanding of how to prevent hospital acquired infections. Their degree of awareness on the prevention of hospital acquired infections was unaffected by demographic factors. To increase their level of expertise, educational interventions through information modules were offered.

Keywords: Hospital Acquired Infection, knowledge, prevention, nursing students.

1. INTRODUCTION

"Be a proponent of infection control for a better tomorrow."

An infection that a hospital patient who was in for a different ailment than that infection picks up there. An infection that develops in a patient who was admitted to a hospital or another healthcare facility without the infection being there or without any evidence of hidden incubation. Included are illnesses that were picked up in the hospital but manifest during a protracted hospital stay or after release, as well as occupational infections among the facility's workers. This can happen both ways, i.e., from staff to patients or from patients to staffs¹.

Hospital-acquired infections are nosocomial infections that do not manifest signals at the time of admission but do so after discharge or during a patient's extended hospital stay if their immune system is weak. These infections include infections in the bloodstream triggered by central lines, catheter-associated urinary tract infections, surgical site infections, pneumonia linked to ventilators, pneumonia acquired in hospitals, and infection with *Clostridium difficile* infections².

A system for delivering healthcare should have procedures and standards regarding controlling infections, and staff members should take all reasonable steps to prevent infection transmission. However, the risk of infection cannot ever be totally removed, and some individuals have lower levels of infection resistance than others. There are steps that can be taken both before and during treatment to lessen the risk of contracting an infection³.

Research Question

Do nursing students possess the necessary information to prevent hospital acquired infections?

Statement of Problem

A study to assess the knowledge regarding prevention of Hospital Acquired Infections among the nursing students of a selected nursing Institution, Kolkata

Objectives

- ❖ To assess the knowledge regarding prevention of Hospital Acquired Infection among the nursing students
- ❖ To find out the association between knowledge with their selected demographic variables.

2. METHODS AND MATERIALS

Approach to research: a quantitative approach

Research Design: A descriptive research design was used.

Setting: Peerless Nursing Institute, Kolkata

Population: Nursing students

Sample: Students pursuing nursing

Example: Students enrolled in a nursing program

Sampling Technique: Convenient sampling technique was used.

Sample size: 80 nursing students

Tools Development and Selection: A verified self-developed questionnaire

Sample Features: Questionnaire with structured knowledge

Data Gathering Technique: Survey Technique

Duration of Data collection: the period of data collection was from June 15 through June 30, 2021.

Data Analysis: Descriptive and Inferential Statistics (chi square) was used.

3. RESULT AND DISCUSSION

Result and Analysis-

Table 1. Frequency and percentage distribution of sample characters.

n=80

Characteristics of sample	Frequency	Percentage (%)
Age		
18-22	79	98.75
23-27	1	1.25
28 - Above	0	0
Socioeconomic status		
10,000-20,000	47	58.75
20,000-30,000	16	20
30,000-Above	17	21.25
Present Stay		
Rural	35	43.75
Urban	30	37.5
Semi-Urban	15	18.75
Education		
Graduate	50	62.5
Diploma	30	37.5

Characteristics of sample	Frequency	Percentage (%)
Source of knowledge		
Social Media	27	33.75
From other person	19	23.75
Self experience	34	42.5

Table 1 represents the Individual, BSc [50(62.5%)], and GNM [30(37.5%)] participated. Maximum 79 respondents (98.75%) were between the ages of 18 and 22, maximum 35 (43.75%) were from rural areas, and maximum 34 (42.5%) had prior knowledge from personal experience on the prevention of hospital acquired infections.

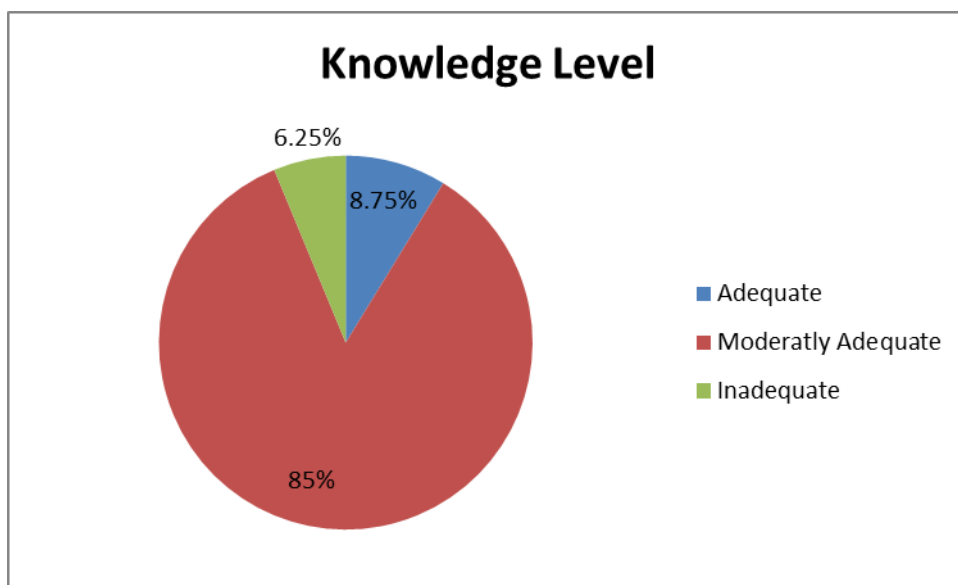


Fig 1. Visualization of nursing students' knowledge scores

Figure 1 depicts the Knowledge score, which reveals that 68 (85%) of the students have relatively adequate knowledge, whereas 5 (6.25%) of the 80 nursing students have inadequate knowledge and 7 (8.5%) have adequate knowledge.

Table2. Description of calculated chi-square value, df, tabulated value on knowledge

Demographic Variables	Calculated Chi square value (χ^2)	df	Tabulated Value	Remark
Age	0.178	4	9.49	NS
Socioeconomic status	4.937	4	9.49	NS
Present Stay	1.919	4	9.49	NS
Education	5.753	2	5.99	NS
Source of knowledge	4.101	4	9.49	NS

NS= Not significant at 0.05 level

Table 2 The association between subjects' knowledge scores and their chosen demographic factors.

The null hypothesis is accepted since the estimated value of χ^2 is less than the value in the table. At the 0.05 level of significance, there is no association between the participant's knowledge and the chosen demographic variable.

4. DISCUSSION

The results of the current study make it clear that, out of 80 nursing students, 5 (6.25%) had insufficient knowledge, 68 (85%) had fairly adequate knowledge, and 7 (8.5%) had adequate knowledge. Their degree of awareness on the prevention of hospital acquired infections was unaffected by demographic factors.

A related study carried out by Majidipour P., Anyan Amir, et al. (August 2019) lends credence to this work. The 102 nursing students at Kermonshah University of Medical Sciences participated in a cross-sectional research design. According to the study, nursing students who received average grades of more than 16.1 performed on average substantially better than those who had average grades of less than 16 ($p=0.024$). The outcome demonstrates a direct association between nursing students' knowledge and practice of the guidelines for preventing hospital acquired infections ($r= 0.46$, $p0.001$)⁴.

5. CONCLUSION

According to research, the majority of nursing students are only marginally knowledgeable about how to prevent hospital acquired infections. Their degree of awareness on the prevention of hospital acquired infections was unaffected by demographic factors. Thus, it can be said that further research is required in this field to better information about how to prevent hospital acquired infections.

6. REFERENCE

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