



Knowledge regarding infection control practices among Undergraduate Nursing students

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ABSTRACT

BACKGROUND OF THE STUDY:

Infection control is a practical evidenced based approach which prevents patients and health workers from being harmed by avoidable infections. Hospital Acquired Infection (HAI) is a major global safety concern for both patients as well as healthcare professionals. The recent emergence and re-emergence of infectious diseases have made the knowledge and practice of standard infection control precautions in developing countries more important than ever. Compliance with infection control measures has critical implications for health care workers' safety, patient protection and the care environment. Health professional students can be exposed to serious health care-associated infections, if they are not following infection prevention and control measures.

Aim: Aim of the study was to assess the knowledge regarding infection control practices among Undergraduate Nursing students

Methods: Research approach adopted for the study was descriptive, survey approach. Simple random sampling was used to select 250 Nursing students for the study. The knowledge of nursing students regarding infection control practices was assessed using structured knowledge questionnaire

Results: The results of the study revealed that only 10% of Undergraduate nursing students were having good knowledge regarding Infection control practices. Statistically significant association was found between the knowledge of students and their previous exposure to educational programs regarding infection control practices ($P < 0.05$).

CONCLUSION

Study findings highlights the need for incorporating educational strategies with practical sessions regarding infection control practices in the curriculum of Under Graduate Nursing students which in turn equip them to work as the frontline health workers in a variety of settings ensuring patient safety.

Keywords: Knowledge, Infection control practices, Under Graduate Nursing students

INTRODUCTION

Healthcare-acquired infections are significant causes of morbidity and mortality among hospitalized patients worldwide.¹ These are infections associated with delivery of care in contrast to infections that are present at the time of care and are leading cause of death and morbidity among patients receiving health care. It is defined as a localized or systemic infection acquired in a hospital or any other health-care facility by a patient admitted for a reason other than that infection.²

According to the World Health Organization, the practice of standard precautions includes the basic principles of infection control such as handwashing and using personal protective equipment such as gloves, masks, gowns, and eyewear to prevent contact with potentially infectious materials, as well as safe handling of sharps.³

Experts at the Centers for Disease Control and Prevention have reported that the recent occurrence of highly infectious diseases like severe acute respiratory syndrome, Middle-East respiratory syndrome, and Ebola virus disease have made the knowledge, practice and enforcement of standard precautions more important than ever.³

Recent literature has documented that the burden of hospital acquired infections are disproportionately high in resource-limited settings with rates estimated to be two to twenty times that of developed countries. One of the major reasons for these high rates of infections is the lack of infection control programs, which have been neglected due to limited resources, competing priorities, and other barriers.¹

The recent emergence and re-emergence of infectious diseases have made the knowledge and practice of standard infection control precautions in developing countries more important than ever. Exposure to infectious material can be minimized by strict compliance with standard precautions. Strict compliance with safety rules must be taught and reinforced as the educational cornerstone of providing basic care and preventing the spread of disease.^{3,4}

Nurses represent the largest labour group in health care and they have the greatest degree of contact with patients. In addition, nursing students are at even greater risk of contamination and sharps injuries during clinical training precisely because they are inexperienced.³

Published literature has proved that in spite of the wide promotion of standard precautions in all countries, the level of knowledge, attitudes and practice of these precautions for infection control among health care professionals is still substantially suboptimal, and their application is insufficiently reported. Also, studies have reported that failure to comply with standard precautions of infection control was associated with lack of knowledge in this area, negative attitudes, and lack of support from both of institutions and patients.^{5,6} Identifying existing infection control knowledge, attitudes, and practices among health care workers is a key first step in developing a successful infection control program.¹

STATEMENT OF THE PROBLEM

“A study to assess the knowledge regarding infection control practices among Undergraduate Nursing students of selected Nursing college in Mysuru”

Aim. Aim of the study was to assess the knowledge regarding infection control practices among Undergraduate Nursing students

HYPOTHESIS

H₁: There will be statistically significant association between the knowledge of Under Graduate Nursing students regarding infection control practices and their selected personal variables

MATERIALS & METHODS

A descriptive, survey approach was adopted for the study. Formal administrative permission for conducting the study was obtained from the principal of the selected Nursing College. Data related to the demographic variables of Nursing students and the knowledge regarding infection control practices was collected using structured questionnaire. Tools were validated by the subject experts and Split half method was used to establish the reliability of the tool. Pilot study was conducted to assess the feasibility of the tools.

Simple random sampling was used to select the 250 Nursing students pursuing the 2nd, 3rd and 4th year BSc degree programs in Nursing in the selected college. An informed consent was obtained from each sample indicating their willingness to participate in this study. Structured knowledge questionnaire consisted of 35 items and was prepared with the knowledge items divided under the headings: definitions, principles and component of Infection control practices.

RESULTS

1. Findings related to the selected personal variables of under graduate Nursing students

A total of 250 Nursing students participated in the study and majority of them (76%) were in the age group of 18 to 21 years and majority of them (76%) were females. Data related to previous exposure to educational program on infection control practices revealed that majority of students (87.6%) were having previous exposure.

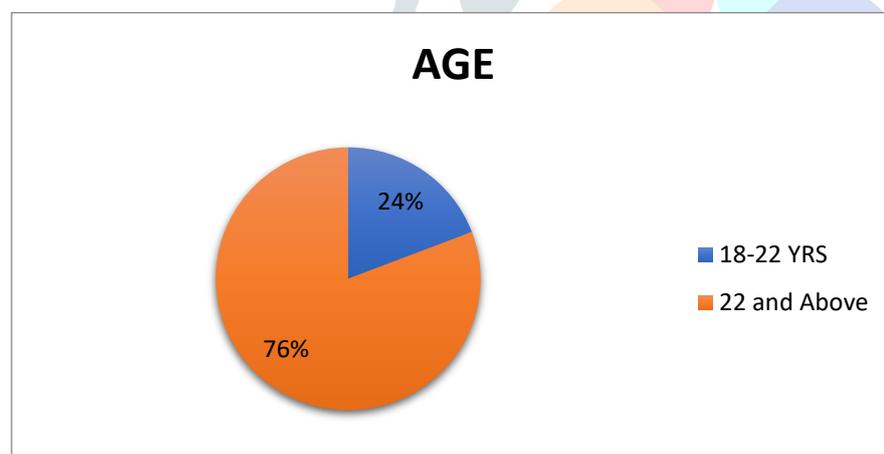


Figure 1: Frequency and Percentage distribution of nursing students according to their age

2. Findings related to knowledge of Under graduate Nursing students regarding Infection control practices

Table 1

Mean, Median, Range and Standard deviation of the knowledge regarding Infection control practices

n=250

Mean	Median	Range	Standard Deviation
17.75	18	06-34	±4.48

Data presented in Table 1 shows that the mean knowledge of Nursing students regarding infection control practices was 17.75. Scores ranged from 06-34, with a SD of ± 4.48 .

Table-1

Frequency and Percentage distribution of the knowledge of Under Graduate Nursing students regarding Infection control practices

n=250

Level of Knowledge	Frequency (f)	Percentage (%)
Good Knowledge	25	10
Average Knowledge	105	42
Poor Knowledge	120	48

Data presented in Table 2 reveals that, only 10% students had good knowledge, 42% students had average knowledge and 48% students had poor knowledge regarding Infection control practices.

These findings are consistent with the findings of a study conducted to assess the knowledge, practice and associated factors of infection prevention among healthcare workers in Northwest Ethiopia which reported that only 57.3% of respondents demonstrated a good practice on infection prevention.⁶

Results of another study conducted among under graduate Nursing students in Jordan also reported that only 27% had compliance with Standard Precautions³

3. Findings related to association between the knowledge of Nursing students regarding Infection control practices and their selected personal variables.

Statistically significant association was observed between the knowledge of Nursing students regarding Infection control practices and previous exposure regarding Infection control practices ($P < 0.05$).

This implies that previous exposure regarding Infection control practices had an influence on their knowledge. Study findings also revealed that there was no statistically significant association between the knowledge and the selected personal variables of Nursing students viz. age, gender and religion.

Findings of a study conducted among the health care workers in Ethiopia reported that age, duration of work experience and in-service training of the study participants were associated with the practice of infection prevention.⁶

CONCLUSION

Study findings highlights the need for incorporating educational strategies with practical sessions regarding Infection control practices in the curriculum of Nursing students which in turn equip them to work as the frontline health workers in a variety of settings ensuring patient safety.

LIMITATIONS

The identified limitation of the study was the inability to ensure a large sample of Nursing students. Similar studies and educational interventions could be conducted among students from various health disciplines to update their knowledge regarding Infection control practices for ensuring the prompt adherence with standard precautions.

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Nil

CONFLICT OF INTEREST

Nil

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