



Hospital Administration

ASSESS THE KNOWLEDGE REGARDING PREVENTION OF HOSPITAL ACQUIRED INFECTIONS AMONG INTERNSHIP STUDENTS IN SELECTED HOSPITAL AT MANGALURU

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ABSTRACT **Background:** Infection control is the process of preventing the spread of infections in the health care setup. Internship students are among the health workers who are at the risk of carrying the infections. They play an important role in the hospital functions. They should realize the ways through which the infections can be spread and should take care of themselves and others by the proper handwashing and sanitation. **Objectives:** To assess the knowledge regarding prevention of hospital acquired infections among internship students. To find the association of knowledge score with selected demographic variables. **Materials and methods:** Non experimental descriptive study was conducted to assess the knowledge level regarding prevention of hospital acquired infections among internship students in selected hospitals at Mangalore. 100 samples were selected by using purposive sampling technique. The data was collected by using structured knowledge questionnaire. Data was analyzed by descriptive and inferential statistics. **Results:** The study revealed that majority (70%) of the students belongs to age group of 23 and above years, majority (39%) students were Christian and Muslim, (46%) of students belongs to medicine discipline and (57%) of the students attended educational programs related to prevention of hospital acquired infections. Also the result shown that 88% of the participants had adequate knowledge, 6% had good knowledge and 6% had inadequate knowledge regarding prevention of Hospital Acquired Infection. There was no association between knowledge score and selected demographic data. **Conclusion:** It concludes that there is a need to conduct more research on practice to prevent Hospital Acquired Infection among internship students

KEYWORDS : Hospital Acquired Infections, Prevention, Knowledge, Internship students.

INTRODUCTION:

Healthcare associated infections (HAI) also referred to as nosocomial or hospital infection represent the most frequent and serious complications of healthcare¹. Health care-associated infections have long been recognized as crucial factors undermining the quality and outcomes of health care delivery². The health practice students are exposed early to the hospitals and to activities which is increasing their scope acquiring the transmitting infections. These diseases are usually caused by the bacteria, viruses, and fungus that spread from patients or vice versa through contact, human contact with an infected surface airborne, droplets and finally common vehicles as food or water. Exposure to infectious disease is one of the most frequently identified occupational hazards among students. The early profession of training programs that provides the information about protect medical students from exposure to blood borne pathogens is therefore appropriate and is of paramount importance³. Nosocomial infection goes beyond its impact on morbidity and mortality figures in any country and it has profound economic implications. The effort towards education in terms of training and retraining about standard infection control as well as strict adherence by healthcare students to accepting practice can produce the extend of these risks. Consider the lack of student knowledge on nosocomial infection and prevention⁴. The intern's students demonstrated moderate knowledge of nosocomial infection and this was acquired largely through formal classroom training. These findings underscore the need for more emphasis on education about this important source of infection in clinical practices⁵. A few of the research studies conducted in different nations like France⁶, Ghana¹¹, Ethiopia¹⁴, and India⁸ appear that there's require for more accentuation on instruction approximately sources of nosocomial infection. Hospital Acquired Infections exact a tremendous toll, resulting in increased morbidity and mortality, and increased health care cost. Compliance on the part of healthcare workers including medical students with standard / universal precautions and implementation of these measures has been recognized as efficient means to prevent and control Hospital Acquired Infections. Such measures not only protect the patients, but also the healthcare workers and the environment⁹. Also there is limited

information regarding knowledge awareness and practice of health professional students regarding infection prevention control and the educational approaches used to teach them these practices¹

MATERIALS AND METHODS:

The study adopted a quantitative research approach with a Non experimental descriptive design. The study was carried out at selected tertiary hospital, Mangaluru. Before conducting the study, an administrative permission was obtained from selected hospital. Both male and female internship students who are available at the time of data collection were the focus population for this study. Non probability purposive sampling technique was used to select 100 internship students. Ethical clearance was approved by the ethical committee of the institution (YEC-1/109/2019). Data was collected after the details of the study were explained to them. Informed consent was obtained from each participant. Assurance was given to participants that anonymity of each individual would be maintained and were informed of their right to withdraw anytime during the course of the study. The tool used for data collection was socio demographic proforma, structured knowledge questionnaire to assess the knowledge level of participants. The reliability, content validity was established for all tools. After the selection of participants, knowledge regarding prevention of hospital acquired infection assessed. The data analysis has been done using SPSS 23.0 version. Data was analyzed using descriptive and inferential statistics at 0.05 level of significance.

RESULTS:

Subject demographic characteristics: The frequency and percentage distribution of demographic characteristics are described in Table-1.

Table 1: distribution Of Samples According To Demographic Characteristics
N = 100

SI. NO	Sampling characteristics	Frequency	Percentage
1.	Age in years		
	21-22	30	30
	23 and above	70	70
2.	Gender		

	Male	50	50
	Female	50	50
3.	Religion		
	Christian	39	39
	Hindu	22	22
	Muslim	39	39
4.	Course		
	Medicine	46	46
	Dental	20	20
	Nursing	34	34
5.	Duration of the course		
	4 th	37	37
	5 th	63	63
6.	Recently attended any educational program		
	Yes	43	43
	No	57	57

The mean score was 15 and standard deviation 3.866. Data presented in Figure- 1 show that 88 out of 100 (88%) of them had adequate knowledge six of them (6%) had good and inadequate knowledge regarding prevention of hospital acquired infection.

Knowledge regarding prevention of Hospital acquired infection

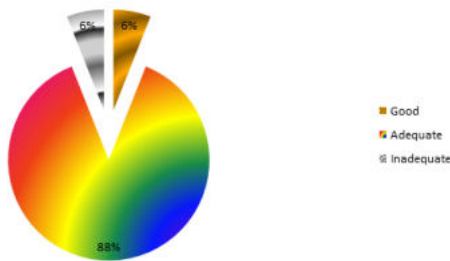


Fig1: Percentage distribution of samples according to knowledge level regarding prevention of hospital acquired infection N=100

The data presented in Table- 2 show that association between knowledge score and selected demographic variables. To test the association between knowledge regarding prevention of hospital acquired infection among internship students and selected demographic variables, chi-square was computed. It was found that there was no significant association between knowledge score and selected socio-demographic variables such as age, gender, religion, course, duration of the course and recently attended any educational program.

Table 2: Association Between Knowledge Score And Selected Demographic Variables. N=100

Sl. NO	Demographic variables	Median=15		p value
		Below median	Above median	
1.	Age in years			0.179
	21-22	15	15	
	23 and above	40	30	
2.	Gender			0.154
	Male	25	25	
	Female	30	20	
3.	Religion			0.068
	Christian	22	17	
	Hindu	15	7	
	Muslim	18	21	
4.	Course			0.343
	Medicine	22	24	
	Dental	15	5	
	Nursing	18	16	
5.	Duration of the course			0.549
	4 th	21	16	
	5 th	34	29	
6.	Recently attended any educational programme			0.442
	Yes	22	21	
	No	33	24	

0.05 Level of significance

DISCUSSION

Description of the sample based on demographic characters:

Most susceptible people for infectious diseases in working environment are health-care professionals¹⁰. The health care providers are at the forefront of treating patients about the best strategies they can apply. They play a critical role in improving access and quality of health care for the general population. Hospital acquired infections are unavoidable but it is preventable. Nosocomial infection contracted during medical treatment is a huge problem in hospitals. Approximately 5,000 patients die every year from nosocomial infections. Up to 30% are preventable through simple infection control procedures¹¹. Internship students may have knowledge to prevent hospital acquired infections. Thus, this study investigated the knowledge regarding prevention of hospital acquired infections among internship students in selected hospitals at Mangaluru.

The findings of the study demonstrated that among 100 Internship students, 50 (50%) were Males and 50 (50%) were Females. Mayanlambam P conducted a Non-Experimental Descriptive research study ,Knowledge regarding the prevention of hospital acquired infections among the students which reveals that out of 32 students 16 (50%) were Males and 16 (50%) were Females.¹²

Present study findings revealed that majority of the subjects belongs to age group of 23 and above (70%). Mayanlambam P also concluded that Knowledge regarding the prevention of hospital acquired infections among the students which reveals that 23 (72%) of the subjects were between 17-20 years of age.¹²

Distribution of subjects according to knowledge score:

The present findings of the study demonstrated that among 100 internship students, 88% had adequate knowledge, 6 % had good knowledge and 6% had inadequate knowledge regarding prevention of hospital acquired infections.

Bag A conducted a Cross-sectional study to assess the knowledge regarding nosocomial infections and its prevention among BSc Nursing students which reveals that 0.89% have very good knowledge, 6.25% of the good knowledge, 63.39% have average knowledge¹³

Association between knowledge score and selected demographic variables:

The findings of the present study reveals that the computed chi-square value of demographic variables such as age, gender, religion, course, duration of the course and recently attended any educational programme on hospital acquired infections are greater than the table value at 0.05 level of significance(p >0.05). No association is found between knowledge score and selected demographic variables. Therefore the null hypothesis was accepted and research hypothesis was rejected. Ajediran I Bello conducted a Cross- sectional study, Nosocomial Infections: Knowledge and source of information among clinical health care students which reveals that there is no significant association between course of study and knowledge of students about preventive measures for Nosocomial Infections (p > 0.05)¹⁴. Kulkarni V etc concluded that healthcare professionals should have adequate knowledge regarding infection prevention practices and it is essential to reduce the burden of the illnesses among patients seeking care¹⁵.

Hence the study was conducted in a single institution, and thus, results cannot be generalized to other institutes. However, these findings would be useful for planning additional educational interventions and improving the infection control protocol.

CONCLUSION:

Internship is the most important carrier in their life. They are prepared to enter this health professional world. It is necessary to effectively communicate with internship students about associated risks and importance of prevent the transmission of microorganisms and exposure during the care of the patients. Internships students should be motivated to learn effectively regarding hospital acquired infection control measures.

Conflicts of interest: Nil.

Ethical clearance: The ethical clearance was obtained.

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