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A STUDY TO ASSESS THE KNOWLEDGE REGARDING INFECTION CONTROL AMONG FIRST YEAR BSC NURSING STUDENTS AT SELECTED NURSING COLLEGES, KOLLAM

Ancy A.[1], Chitra B.[1], Jancy Saji[1], Sibi Achankunju[1], Silpa Biju[1*] and Ann Benzily[2]

[1]BSc. Nursing Students, Bishop Benziger College of Nursing, Kollam, Kerala, India.
[2]Nursing Tutor, Bishop Benziger College of Nursing, Kollam, Kerala, India.a

***Corresponding Author: Silpa Biju**
BSc. Nursing Students, Bishop Benziger College of Nursing, Kollam, Kerala, India.

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ABSTRACT
The research project under took was "A descriptive study to assess the knowledge regarding infection control among first year BSc nursing students at selected nursing colleges, KollamThe objectives of the study were to assess the knowledge regarding infection control among first year B.Sc nursing students in selected nursing colleges at Kollam, to find the association between knowledge scores with selected demographic variables such as age, gender, education, place of residence and socioeconomic status, non experimental survey design was adopted for this study. A quantitative approach was used in the study. The study was conducted among 50 first year B.Sc nursing who were studying in Bishop Benziger College of Nursing at Kollam. In order to assess the knowledge of first year B.Sc.nursing students, the study sample was selected by non-probability convenient sampling technique. The researcher collected the data using self- structured questionnaire regarding knowledge of infection control. The tool was found to be reliable. The study result shows that 18% of sample had poor knowledge, 64% had average knowledge, 18% had good knowledge, regarding infection control among first year B.Sc nursing students in selected nursing colleges of Kerala and there was no significant association between age, gender, education, place of residence and socio economic status at 0.05 level of significance. Based on the findings the investigators have drawn implication which were of vital concerns in the field of nursing practice, nursing administration and nursing education for future development.

KEYWORDS: Assess, structured questionnaire, infection control, B.Sc. nursing students, instructional package.

INTRODUCTION
Infection control is the discipline concerned with preventing nosocomial or health care associated infection, a practical (rather than academic) sub-discipline of epidemiology. It is an essential, though often underrecognized and undersupported, part of the infrastructure of the healthcare. Infection control and hospital epidemiology are akin to public health practice, practiced within the confines of a particular health-care delivery system rather than directed at society as a whole. Nurses play a crucial role in preventing and controlling transmission of the infection through the application of standard precautions and maintenance of the health care environment. In hospitals, infected patients are a source of infection transmission to other patients, health care workers, and visitors. Healthcare-related infections 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. For example, nosocomial infection is one of the leading causes of death. Health care workers may be exposed to certain infections in the course of their work in a health-care setting. Depending on regulation, recommendation, the specific work function or personal preference, health care workers or first responders may receive vaccinations for hepatitis-B, influenza, measles, mumps and rubella.[1]

A huge amount of biomedical waste is produced during the various procedures of healthcare, which has a high potential for infection. HCWs must know the various measures for their own protection. They should comply with infection control measures, improve organization of work, implement standard precautions and dispose biomedical waste properly to prevent occupational exposure. If, despite prevention, an injury occurs, immediate reporting should be done and measures taken in order to decrease the risk of HIV Hepatitis-B transmission. Anti-infective agents including antibiotics, antibacterial, antifungals, antiviral and antiprotozoal.[2]

The need for infection control in health care facilities is born out of the need to prevent health care associated

infections (HCAIs). HCAI can be defined as an infection occurring in a patient during the process of care in a hospital or other health care facility which was not present or incubating at the time of admission. It contributes to significant morbidity and mortality, longer duration of hospitalization, as well as increased cost of treatment in both developed and resource-poor countries. The prevalence in the developed world is reported to be 15% among hospitalized patients while it is as high as 37% for patients admitted into the intensive care units. The prevalence in developing countries is somewhat higher with up to 19% of prevalence of HCAI among hospitalized patients. In the United States, the added expenditure as a result of HCAI is in excess of $4.5 billion, while in the United Kingdom, a mortality rate of 13% and a prolongation of hospital stay by factor of 2.5 was reported. Even with the paucity of data in Sub-Saharan Africa, HCAI remain a major cause of preventable morbidity and mortality in developing countries where infection rates are relatively higher due to poor infection control practices and overcrowding of hospitals.3 tetanus, diphtheria, pertussis, Meningitides and varicella.[3]

STATEMENT OF THE PROBLEM

"A descriptive study to assess the knowledge regarding infection control among first year BSc nursing students at selected nursing colleges, Kollam.

OBJECTIVES

The objectives of the study were

- To assess the pretest knowledge scores on infection control among first year BSc nursing students at selected colleges, Kollam.
- To find the association between pretest knowledge scores and selected demographic variables like age, gender, education, place of residence and socioeconomic status.

OPERATIONAL DEFINITIONS

Assess

In this study assess refers to examination of knowledge regarding infection control among first year B.Sc.Nursing students.

Knowledge

In this study knowledge refers to the scores obtained by respondents to the items in structured questionnaire regarding infection control**.**

Infection control

In this study infection control refers to the process by which healthcare facilities develop and implement specific policies and procedures to prevent the spread of infections among health care staffs and patients.

First year B.Sc. Nursing students

In this study it refers to first year students who offer B. Sc Nursing programme

RESEARCH METHODOLOGY

Research approach	: Quantitative research
Research design	**:** Non-Experimental research design
Variables	**Dependent variable:** knowledge regarding infection control among first year BSc nursing students **Demographic variables:** age, gender , education, place of residence, socio economic status regarding infection control among first year BSc nursing students in selected nursing colleges, Kollam
Setting of the study	: Virtual setting through Google form.
Population	: B.Sc. nursing students of Bishop Benziger Colleges of Nursing, Kollam District who has email id and internet accessibility.
Sample	50 first year B.Sc. Nursing students of Bishop Benziger College Of Nursing, Kollam.
Sample Size	: Sample size for the study was 50 first year B.Sc. Nursing students of Bishop Benziger College Of Nursing, Kollam.
Sampling Technique	: Convenience sampling technique

RESULTS AND DISCUSSION

SECTION: A

Description of knowledge scores of students regarding infection control.

Table 1: frequency and percentage distribution of pretest score on knowledge regarding infection control.

RANGE	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE
0-33	Poor	9	18
34-66	Average	32	64
>66	Good	9	18

Table 1 shows that 18% of students had poor knowledge regarding infection control, 64% had average knowledge and 18% had good knowledge.

SECTION: B

Association between knowledge of students regarding infection control and selected demographic variables.

Table 2: Association between knowledge and selected demographic variables.

Sl no	Variables	Knowledge			Df	Chi square value	Table Value	Level of significance
		Good	Average	Poor				
1.	**Age**							
	18-19	3	18	3				
	19-21	5	13	6				
	>22	1	1	0	4	2.67	9.49	NS
2.	**Gender**							
	Female	9	31	7				
	Male	0	1	2	2	5.36	5.99	NS
3.	**Education**							
	Plus two	3	10	0				
	Above plus two	6	22	9	2	3.85	15.51	NS
4.	**Place of residence**							
	Urban	3	13	5				
	Rural	6	19	4	2	0.966	3.84	NS
5.	**Socio economic status**							
	Upper	0	2	1				
	Middle	8	29	8				
	Lower	1	1	0	4	1.486	9.49	NS

NS** – Not significant at 0.05 level of significance.
S* – Significant

Table-3: The association was computed by using chi square test. Regarding age, the calculated value 2.67 is less than table value 9.49 at 0.05 level of significance. Regarding gender the calculated value 5.36 is less than the table value 5.99 at 0.05 level of significance. Regarding education the calculated value 3.85 is less than the table value 15.51 at 0.05 level of significance. Regarding place of residence the calculated value 0.966 is less than the table value 3.84 at 0.05 level of significance. Regarding socio economic status the calculated value 1.486 is less than the table value 9.49. In short there is no association found between knowledge and demographic variables like age, gender, education, place of residence, socio economic status.

RESULT AND DISCUSSION

Section A: Description of sample characteristics Description of demographic variables under study.

This section deals with the result of the sample characteristic under study. It included age , gender , education, place of residence and socio-economic status.

Demographic variables

The data showed that

- In the study shows that, 48% were in the age group of 18-19 years and 48% were in the age group of 19-21years and 4% we're in the age group of above 22 years.
- In the study shows that, 94% were females and 4% were males.
- In the study shows that 26%have education above plus two and 74% have education up to plus two.
- In the study shows those 48% students lives in urban areas and 52% students lives in rural areas.
- In the study shows that 6% students belongs to high socio-economic status,90% students belongs to middle and 4% belongs to low socio-economic status.

Section B: Description of knowledge scores of students regarding infection control.

The tool used for assessing knowledge score was Structured knowledge questionnaire 18% had inadequate knowledge , 64% had moderate knowledge, 18% had adequate knowledge regarding infection control.

To prepare a instructional module on infection control.

After assessment of the knowledge regarding, infection control the researcher provided a instructional module regarding infection control.

Section C: Association between knowledge score with selected demographic variables.

The association was found out by using chi square test. it was found that the present study showed no significant association between knowledge and demographic variables such as age, gender, education, place of residence and socioeconomic status at 0.05 level of significance. (Calculated 't' value was lesser than table value at 0.05 level of significance. There was no association between knowledge and demographic variables such as age, gender, education, place of residence and socio-economic status (calculated 't' value was lesser than table value at 0.05 level of significance). In the case of age, chi square value was 2.67 which is lesser than table value at 0.05 level of significance. So

there was no association between age and knowledge regarding infection control. In the case of gender, chi square value was 5.36 which is lesser than the table value at 0.05 level of significance. So there was no association between gender and knowledge regarding infection control. In the case of education, chi square value was 3.856 which is lesser than the table value at 0.05 level of significance. So there was no association between education and knowledge regarding infection control. In the case of place of residence, chi square value was 0.966 which is lesser than the table value at 0.05 level of significance. so there was no association between place of residence and knowledge regarding infection control. In the case of socio economic status, chi square value was 1.486 which is lesser than the table value at 0.05 level of significance. So there was no association between socioeconomic status and knowledge regarding infection control.

CONCLUSION

The present study was aimed to assess the knowledge regarding infection control among first year B.sc nursing students at selected colleges, Kollam with a view to develop an instructional module. Based on the findings of the study, the following conclusions were drawn The present study revealed that 18% had adequate knowledge, 64% had moderate knowledge, 18% had inadequate knowledge regarding infection control.

The study revealed that there was an association between knowledge score among students. The association between the knowledge score among students and demographic variables were tested using chi-square test and the calculated chi- square value for the demographic variables such as age (2.67), gender (5.36), education (3.856), place of residence (0.966) and socioeconomic status (1.486)were less than the table value hence it is found that there was no significant association between knowledge score and demographic variables like age, gender, education, place of residence and socioeconomic status regarding infection control.

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