Original Study

A Study to Assess the Effectiveness of Video-Assisted Teaching Programme on Knowledge and Practice Regarding the Prevention of Hospital-Acquired Infection Among the Students in Chettinad College of Nursing

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ABSTRACT

Background: Nosocomial infections are defined as those infections which occur among patients admitted in hospitals and become manifest after 48 hours of stay, and are neither present nor incubating at the time of hospital admission. The purpose of the study was to evaluate the effectiveness of video-assisted education in helping nursing students at Chettinad College of Nursing gain information and skills related to preventing hospital-acquired infections. The study's goal was to evaluate the existing level of knowledge and practice regarding the prevention of hospital-acquired infection.

Objective: To evaluate the effect of video teaching programs on knowledge and practice regarding the prevention of hospital-acquired infection, and to find the association between the pre-test and post-test scores with the different demographic variables.

Methods: Quasi-experimental research design was used for the study. 80 college students from Chettinad college of nursing were selected by randomized sampling technique.The questionnaire and checklist were used to collect data. The data collected were properly screened before they were analyzed.

Results: The data were analyzed and tabulated. The study finding shows that (83.3%) n=70 has inadequate knowledge and practice (7.1%) n=6 has moderate knowledge and practice and (4.8%) n=4 has moderate knowledge and practice. After the video teaching, it shows that (3.6%) n=3 has inadequate knowledge and practice (9.5%) n=8 has moderate knowledge and practice, and (82.1%) n=69 has moderate knowledge and practice. The study shows there is no significant association between knowledge and practice demographic variables like gender, age, year of study, medium, or media exposure and posting.

Keywords: hospital-acquired infection, college students

INTRODUCTION

The terms healthcare-associated infections, hospital-acquired infection (HAI), and nosocomial infections (Greek: nomos-disease, Komen-to take care of, refers to hospitals) are defined as those infections which occur

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among patients admitted in hospitals and become manifest after 48 hours of stay and are neither present not incubating at the time of hospital admission. Such infections may become evident during their stay in the hospital or, sometimes, only after their discharge.[1]

Nosocomial infections can be controlled by practicing contamination control programs, retaining a test on antimicrobial use and its resistance, and adopting ng antibiotic manipulation coverage. The maximum common negative occasion in healthcare that compromises an affected person's safety is HAI. They place a heavy economic strain on sufferers, households, and healthcare systems in addition to appreciably expanded morbidity and mortality. any other trouble with HAI is the upward thrust of multi-drug resistance microbes. HAI affects 3.2p.cof all hospitalized patients inside the USA. and, 6. Five% within the EU Union/ EU monetary area and worldwide occurrence are probably a whole lot higher.[2]

A nosocomial infection has both long-term and short-term effects, including a prolonged stay at the hospital, chronic diseases, mortality, morbidity, temporary and permanent dysfunction, and excessive treatment activity, all of which result in significant cost overruns for the healthcare system. NI can be prevented by infection control and it can help to reduce medical costs. The infection control guideline series has assisted healthcare workers to provide quality care to patients. Some studies conclude that there is a lack of adequate knowledge, attitude, and practice regarding nosocomial infection among healthcare workers. The importance of prevention of nosocomial infection should be emphasized in health care workers.[3]

The World Health Organization (WHO) revealed that the prevalence rate of HAIs in high-income countries (HICs) ranged between 5.1 to 11.6 % globally. HAIs have a variety of negative effects on patients, families, and healthcare systems, including higher morbidity and mortality, longer hospital stays, laboratory tests, and risks of antibiotic resistance. According to WHO, HAIs directly cause an estimated 1,40,000 mortality and have an economic effect of US$6.5 billion (only in the USA in 2004). More severe consequences on health outcomes and costs are caused by bloodstream infections and ventilator-associated pneumonia. HAI has been found to affect five- 10 percent of health center patients and the converting transport of health care services is possible to affect similarly the character and value of HAI. On the one hand, the increasing use of equal-day surgical procedures and the trend for shorter lengths of health facility pathogen and invasive devices. so that the investigator chose a topic and enhance the knowledge level of a few of the workforce and management.[4]

SUBJECT AND METHODS

- **Research Approach:** Quantitative approach
- **Research Design:** Quasi-experimental research design
- **Setting of study:** Chettinad College of Nursing
- **Sample:** B.Sc. Nursing 1st year students
- **Sample size:** 80

Inclusion Criteria

1. Students studying B. Sc nursing the first year.
2. Both female males between the age of 19-21 years,
3. Who were available during the time of data collection and
4. Who could read and write Tamil and English were included in the study.

The tools had 3 parts

- **Part 1:** Demographic Variables
- **Part 2:** Knowledge questionnaire on prevention of hospital acquired infection
- **Part 3: Practice checklist on prevention of hospital acquired infection**

RESULTS

Table 1: Frequency and Percentage Distribution on The Pretest

PRETEST RESULTS		
	Frequency	**Percentage**
Inadequate Knowledge & Practice	70	83.3
Moderate Knowledge & Practice	6	7.1
Adequate Knowledge & Practice	4	4.8

Table 2: Frequency and Percentage Distributionon ThePost-test

POST-TEST RESULTS		
	Frequency	**Percentage**
Inadequate Knowledge & Practice	3	3.6
Moderate Knowledge & Practice	8	9.5
Adequate Knowledge & Practice	69	82.1

Table 3: Associationof a demographic variable with knowledge and practice

S. NO	DEMOGRAPHIC VARIABLES	FREQUENCY	KNOWLEDGE AND PRACTICE			Df	X2VALUE
1.	AGE		Inadequate	Moderate	Adequate		
	a) 19-21	80	70	6	4	-	-
	b) above21	-	-	-	-		
2.	SEX						
	a) Male	40	35	3	2	2	1.000(NS)
	b) Female	40	35	3	2		
3.	CLASS					-	
	a) 1st Year	80	70	6	4		
	b) 2nd Year	-	-	-	-		-
	c) 3rdYear	-	-	-	-		
	d) 4th year	-	-	-	-		
4.	CLINICAL POSTING					-	
	a) Yes	80	70	6	4		-
	b) No	-	-	-	-		
5.	MEDIUM OF CLASS					4	
	a) English	78	68	6	4		
	b) Tamil	1	1	0	0		.990
	c) Others	1	1	0	0		
6.	MEDIA EXPOSURE					2	
	a) Yes	27	24	1	2		0.531
	b) No	53	46	51	2		

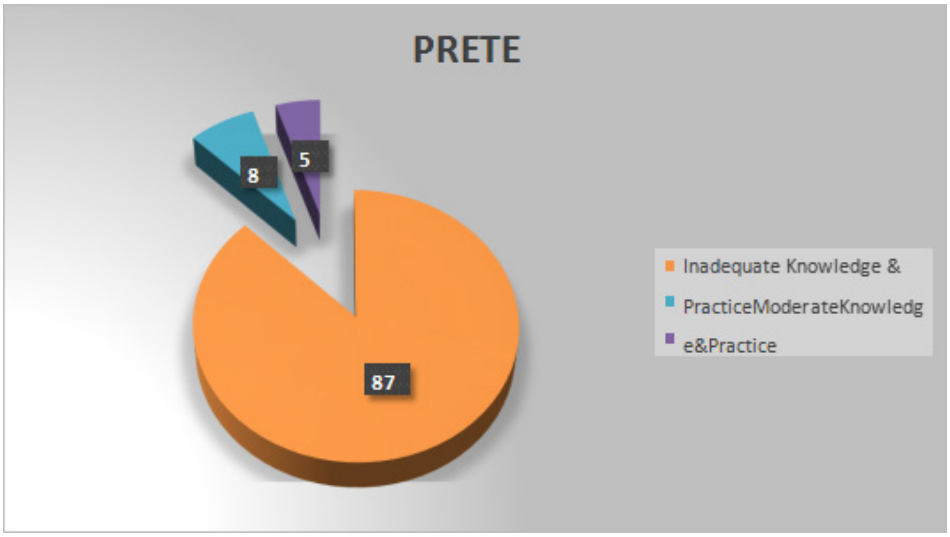

Fig 1: Pretest results

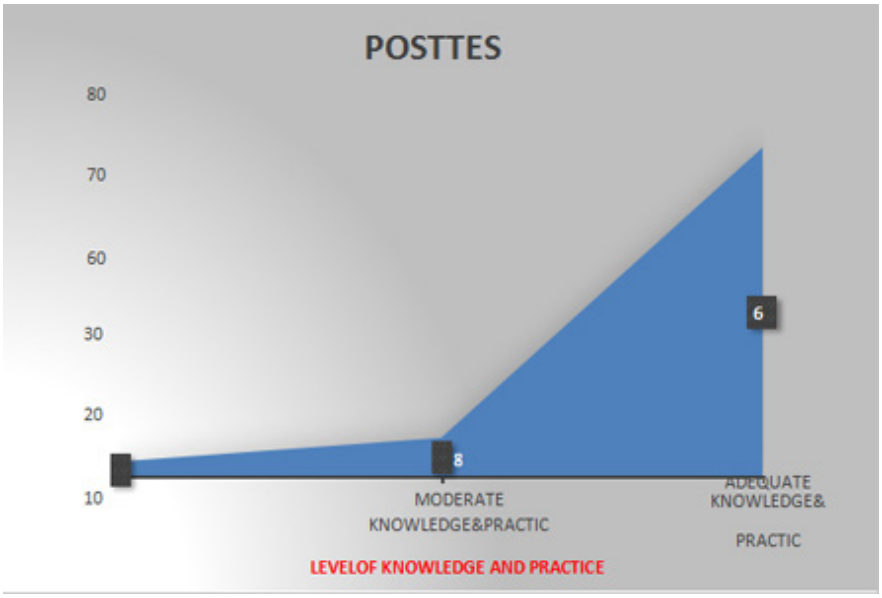

Fig 2: Post-test results

FINDINGS:

In a total of 80 respondents, in the pre-test, the frequency and percentage of knowledge and practice scores of college students regarding hospital-acquired infection show that 83.3% of them had inadequate knowledge and practice, 7.1% had moderate knowledge & practice and 4.8% had adequate knowledge & practice. whereas in the post-test the frequency and percentage of knowledge and practice scores of college students regarding hospital-acquired infection show that 82.1% of them had adequate knowledge and practice, 9.5% had moderate knowledge & practice and 3.6% had inadequate knowledge & practice. Demographic variables including age (p value=nil), sex (p value=1.000), class (p value=nil), clinical posting (p value=nil), medium of class (p value=0.990), and media exposure (p value=0.521) were significantly not associated with knowledge and practice of 1st year B. Sc nursing students.

CONCLUSION

In this study, the structured interview schedule was provided to the college students

fulfilling the inclusion criteria to determine their knowledge and practice regarding the effectiveness of video-assisted teaching programs on the prevention of hospital-acquired infection among the students. The majority of the college students had the highest percentage of inadequate knowledge and practice in the pre-test, whereas the majority of college students who participated in the video-assisted teaching program (post-test) had sufficient knowledge and practice in preventing hospital-acquired infections. The study finding obtained by the researcher shows that there was significant Effectiveness of video-assisted teaching in knowledge and practice regarding the prevention of hospital-acquired infection among the students in Chettinad college of nursing.

Conflict of interest: Nil

Source of funding: Nil

Ethical Clearance: The Institutional Ethical Committee and UG Committee clearances were acquired from CARE. The HOD of the Medical surgical nursing department, Chettinad college of nursing as well as the HOD of the Community Health CHRI granted permission. Before the research started, the participants were aware of its objective and gave their written consent. The participants were made aware that they might leave the study at any time during the research period and that the confidentiality of the information obtained would be preserved and used only for that purpose.

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