

## **Effectiveness of Structured Teaching Programme on Knowledge Regarding Infection Control among The Nursing Students At Selected Colleges of Punjab: A Pilot Study.**

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### **ABSTRACT**

**BACKGROUD** : Poor hospital cleanliness was generally promoted, including patients' worries about health in hospital settings. It also turned infection control into an interesting issue in the community, for media as well as for the medical practice at large. Therefore the researcher wanted to set up an organized encouraging project on infection control and to think about its exposure, among nursing students.

**Objectives:** the pilot study was aimed to assess the effectiveness of structured teaching programme on knowledge regarding infection control among nursing students.

**Materials & methods:** A Quantitative Pre-Experimental One Group Pre Test Post Test Design was used to assess the effectiveness of STP on infection control among nursing students at selected colleges of Punjab. Non Probability convenience sampling technique was used to select 20 study subjects. Structured Knowledge Questionnaire was prepared to assess knowledge of nursing students on infection control.

**RESULTS:** pre-test and post-test level of knowledge of nursing students regarding infection control the result reveals that, in pre-test majority 9(45%) had average knowledge, followed by 6(30%) had good knowledge and 5(25%) had poor knowledge with minimum score was 9 and maximum score was 28 and an average mean and SD was  $17.05 \pm 5.781$ .

The post-test level of knowledge among nursing students regarding infection control showed that majority 11(55%) had good knowledge followed by 7(35%) had excellent knowledge

and 2(10%) had average knowledge with minimum score was 18 and maximum score was 34 and an average mean and SD was  $27.90 \pm 4.327$ .

**CONCLUSION:-**the paper reports Structured Teaching Programme was effective in the improvement of knowledge regarding infection control among nursing students.

**KEY WORDS:** - Infection Control, Structured Teaching Programme , Knowledge.

## **INTRODUCTION**

In addition to practices completed by health worker while keeping under consideration everyone (including guests and patients) must follow some infection control practices in the settings provided under hospital services. Controlling the pathogenesis spreading through one source is the way of maintaining a strategic distance from transmission. In addition to respiratory cleanliness/cough etiquette, source control measures, followed during an intense disorder related to respiratory is at presently considered in the form of standard practices component.<sup>1</sup>

World wide acceleration of the utilization of standard devices great lessen risk of dangers related with human services advancement of an hospital security atmosphere improves similarity with prescribed measures and in this way consequent hazard decrease. Providing satisfactory supplies and staff, along with administration as well s instruction of health workers, quiet, guests, are basic for any upgrades health atmosphere under hospital settings.<sup>2</sup>

Controlling an infection for the care of patients proves to be having quality standard and also is quite fundamental in success of patient as well as for the prosperity of both staff and patients to accomplish a decline in infection rates, an infection control program must be given. Blood borne virus transmission along with various microbial pathogens in a patient under the procedure of routine health case keeps on occurring due to improper usage of syringes, medication practices, or infusion, by personnel of health case in different medical setting. A threat of infection will in like manner be influenced by utilization of different therapeutic devices, such as enteral feeding systems, central venous catheter mechanical ventilator.<sup>3</sup>

A research was performed for evaluating the student's attitude as well as knowledge with respect to disease infection prevention and control, a self-administered survey was utilized to take a gander at standard safeguards particularly hygiene of hands. A total of 162 students

were interested in the research, 114 were nursing students, 17 were radiography, and 31 were medical students. The study findings uncovered that services efforts are expected to improve or survey educational plan so nursing sciences students' information of infection counteractive action and control is conferred ahead of schedule before they are introduced with the wards. <sup>4</sup>

## **Objectives:**

### **The pilot study was aimed to**

1. To assess the level of knowledge regarding infection control among nursing students.
2. To assess the effectiveness of structured teaching programme among nursing students regarding infection control.
3. To determine the association between pre-test knowledge score of infection control with selected demographic variable
4. To calculate the sample size in main study

## **MATERIAL AND METHODS**

Total 20 nursing students i.e. in experimental group were selected .Pre-test of experimental group were done on different days to assess their knowledge regarding infection control among nursing students.

A structured teaching programme was given to the students under first group of experimental by the researcher after pre-test. The post-test has been performed on experimental group after a period of 7 days.

## **RESULTS**

**Analysis data is organized and presented in accordance to the study objectives as follows:**

- Pretest and Posttest knowledge among students of nursing.
- Comparison of structured program teaching impact on the knowledge of infection control.
- Association of knowledge scores with chosen demographic variables

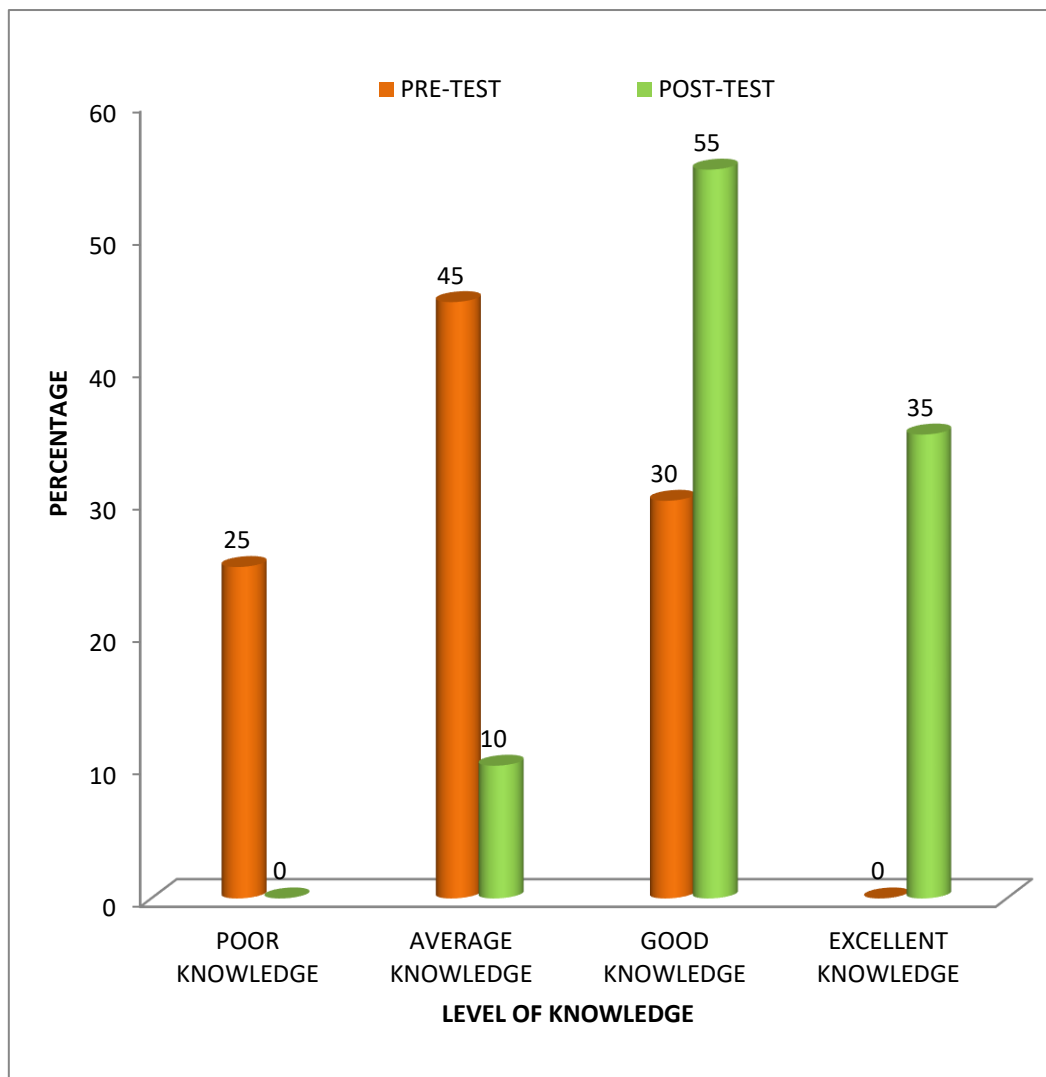
**Pre-test and Post-test level of knowledge regarding infection control among nursing students**

**N=20**

<b>Level of Knowledge</b>	<b>Pre-Test</b>		<b>Post-Test</b>	
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>
Poor knowledge (0-10)	5	25	0	0
Average knowledge(11-20)	9	45	2	10
Good knowledge (21-30)	6	30	11	55
Excellent knowledge (31-40)	0	0	7	35
<b>Mean and SD</b>	17.05±5.781		27.90±4.327	
<b>Score Range</b>	19(9-28)		16(18-34)	

Table 1 and fig 1 shows the pre-test and post-test level of knowledge of nursing students regarding infection control the result reveals that, in pre-test majority 9(45%) had average knowledge, followed by 6(30%) had good knowledge and 5(25%) had poor knowledge with minimum score was 9 and maximum score was 28 and an average mean and SD was 17.05±5.781.

The post-test level of knowledge among nursing students regarding infection control showed that majority 11(55%) had good knowledge followed by 7(35%) had excellent knowledge and 2(10%) had average knowledge with minimum score was 18 and maximum score was 34 and an average mean and SD was 27.90±4.327.



**Fig 1: Pre-test and Post-test level of knowledge regarding infection control among nursing students**

**Table 2: Compare the pre-test and post-test level of knowledge regarding infection control among nursing students.**

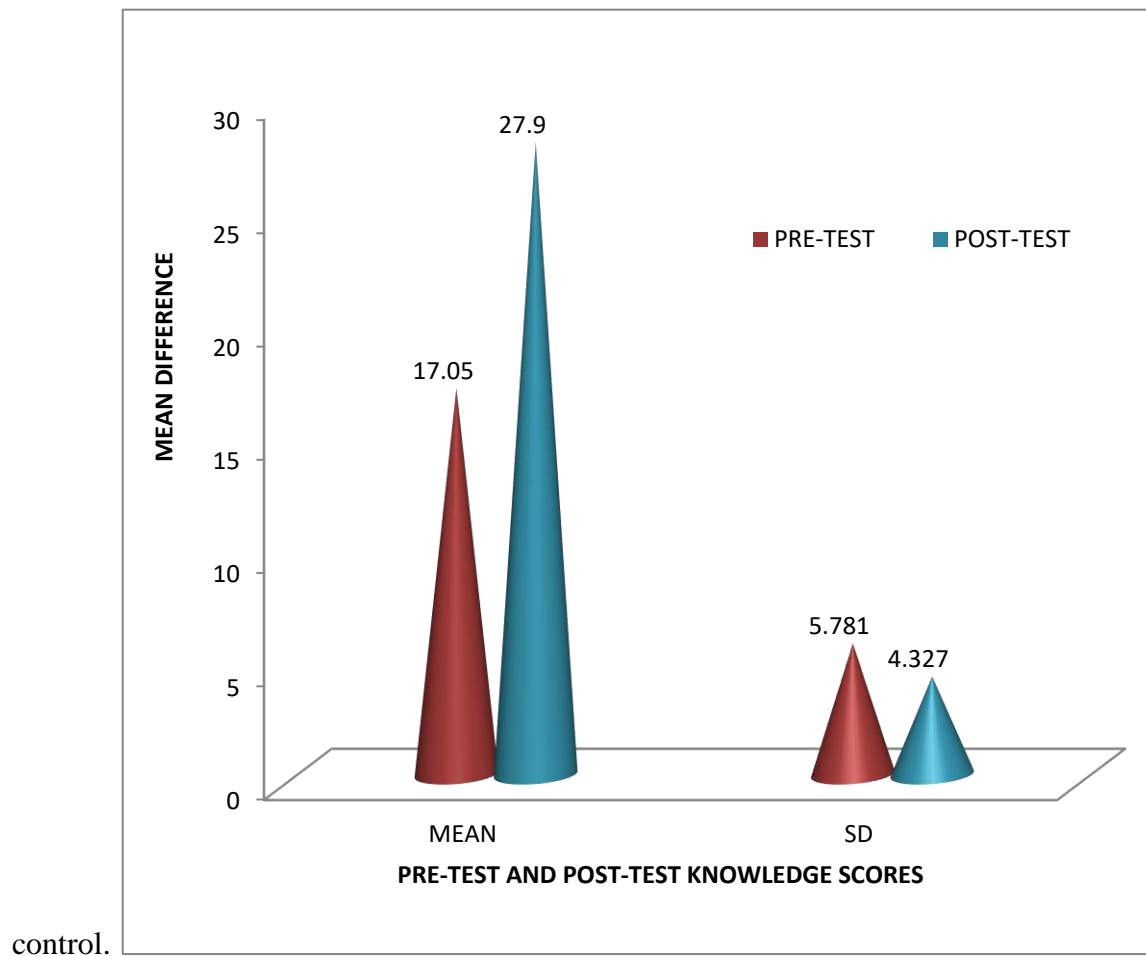
**N=20**

<b>Level of knowledge</b>	<b>Mean</b>	<b>SD</b>	<b>Mean D</b>	<b>'t' value</b>	<b>df</b>	<b>'p' value</b>
<b>Pre-test</b>	17.05	5.781	10.85	6.824	19	0.000*
<b>Post-test</b>	27.90	4.327				

**P value – 0.01 level of significance.**

Table 2 and fig 2 shows the comparison between pre-test and post-test level of knowledge regarding infection control among nursing students showed that in pre-test the average mean and SD was 17.05±5.781 and in post-test mean and SD was 27.90±4.327. The mean difference between pre-test and post-test mean score was 10.85 which was tested by using paired 't' test reveals that (t value-6.824 and p value-0.000). The result was found to be highly significant at 0.01 level of significance which indicates that structured teaching

programme was effective in improving the knowledge of nursing students regarding infection



control.

**Fig 2: Mean and SD of pre-test and post-test level of knowledge scores regarding infection control among nursing students.**

**Table 3: Association between pre-test level of knowledge of nursing students with their selected demographic variables**

**N=20**

S. No	Demographic Variable	Level of knowledge			chi square df p value
		Poor	Average	Good	
1	Age in years				
	a. 17-19 yrs	2	5	3	0.338
	b. 20-22 yrs	2	3	2	4
	c. 23-2 yrs	1	1	1	0.983 NS
2	Gender				4.052
	a. Male	2	0	1	2
	b. Female	3	9	5	0.132 NS
3	Religion				
	a. Hindu	0	2	4	8.695
	b. Sikh	4	7	2	4
	c. Christian	1	0	0	0.069 NS
4	Course of study				2.993
	a. B. Sc (N)	4	8	3	2
	b. Post B. Sc (N)	1	1	3	0.224 NS
5	Area of residence				1.294
	a. Urban	3	7	3	2
	b. Rural	2	2	3	0.524 NS
6	Any family member in medical field				1.525
	a. Yes	1	2	0	2
	b. No	4	7	6	0.466 NS
7	In-service education attended				5.185
	a. Yes	0	0	2	2
	b. No	5	9	4	0.075 NS
8	Source of information				
	a. Teaching faculty	4	6	2	4.467

b. Hospital staff	1	2	2	6
c. Books/Journals	0	1	1	0.614 NS
d. Internet	0	0	1	

**\*p value – 0.05 level of significance**

**NS-Non significance**

demographic variables such as age, gender, religion, course of study, area of residence, any family member in medical field, in-service education attended and source of information on infection control was not found significant association with pre-test level of knowledge regarding infection among nursing students.

**DICUSSION**

To check the reliability of the used method of split half. Coefficient of reliability for assessment of knowledge is estimated by the Karl Pearson coefficient of correlation as this formula applied for checking an internal consistency of tool. Coefficient of reliability is calculated to be 0.82, Hence the used tool was highly reliable.

**CONCLUSION:** Structured Teaching Programme was effective in the improvement of knowledge regarding infection control among nursing students.

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**FINANCIAL DISCLOSURE**

Not declared

**CONFLICT OF INTEREST**

None declared

**REFERENCES**

- 1 [nhttp://cdc.gov.oralhealth.standard](http://cdc.gov.oralhealth.standard) precautions.
- 2 Polit,D.F and Beck ,C.T (2004),Nursing Research Principles and Methods , Philadelphia, Lippincott Williams Wikkins

- 3 K. H. Assma, F. M. Mofteh, S. M. Alaa El-Din and S. S. Bayomi, Assessment of educational training program for nurses working in maternal and child health centers in Assiut city regarding infection control, Ass. Univ. Bull. Environ. Res. 7 (2), 2004, 88-96 )
- 4 [Ojulong](#), [KH Mitonga](#), [SN Ipinge](#), Knowledge and attitudes of infection prevention and control among health sciences students at University of Namibia, African health sciences