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A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge regarding Blood Borne Disease among Nursing Students in Selected Nursing School of New Delhi

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Abstract: ***Blood borne infection are the infections that are transmitted through contact with blood and other body fluids. Among these blood borne infection hepatitis B, hepatitis C, and acquired immune deficiency syndrome are the most prevalent once. A study was conducted to evaluate the effectiveness of structured teaching programme on knowledge regarding blood borne disease among nursing students in selected nursing school of New Delhi. Pre- experimental research approach was used to conduct with the help of non-probability purposive sampling technique to collect data from 30 nursing students. The tool used was structured knowledge questionnaire to collect the data about students. The findings revealed that the calculated "t" value (3.1509) is more than the table "t" value (2.045) at 0.05 level of significance which indicates that the structured teaching programme on blood borne disease is effective. The significant increase in the knowledge is not by chance. The study concluded that the structured teaching programme was effective in improving the knowledge on blood borne infection.***

Keywords: Blood Borne Infection, Effectiveness, Knowledge, Nursing Student

1. Introduction

Blood borne infection are the infections that are transmitted through contact with blood and other body fluids. Among these blood borne infection hepatitis B, hepatitis C, and Acquired Immune Deficiency Syndrome are the most prevalent once [1]. Worldwide, about 3 million health care workers receive percutaneous exposure to blood borne pathogens each year. Further, about 40% of HBV and HCV infection and 1.6 Of HIV infections in health care workers are attributable to occupation sharp exposure, which are mainly preventive [2]. Blood Borne Infection is one of the most common problems in health care services worldwide. It constitutes major cause of morbidity and mortality associated with clinical, diagnostic and therapeutic procedures. Health care workers are at high risk of needle stick injuries which can cause blood borne infections as they perform their clinical activities in the hospital. [3].

2. Methodology

Research Approach: Pre-Experimental Research

Research design: One group pre-test and post – test design

Sample: Student nurses from selected School of Nursing of New Delhi

Sample Size: 30

Sampling Technique: Non- Probability Purposive Sampling Technique

Tool: Demographic Variables, Structured Knowledge Questionnaire on Blood Borne Disease

Validation: Tool validated by 03 experts in the field of nursing. Ethical clearance was taken from the ethical committee of Moolchand Hospital.

Procedure of Data Collection:

- The data was collection in the month of April i. e.25/04/2025 to 01/05/2025.
- Pre-test was administered before giving planned teaching.
- Planned teaching programme was given by AV aids (PPT) on the first day of data collection.
- Post-test was assessed after 7 days from the participants.

3. Results

Major findings related to Demographic Variables:

- The half of the students were in the age group 21- 23 years (15; 50%), some in the age group of 18-20 years (10; 33%) and very few were in the age group of more than 23 years (5; 16%).
- With regard to the year of study of the students (15; 50%) half were from GNM 1st year, (10; 33%) some were GNM 2nd year, and (5; 16%) very few were from GNM 3rd year.
- A majority of students (i. e.25; 83%) reported of having heard about blood borne diseases, (5; 16%) had not heard about blood borne disease.
- None of the students had the history of blood borne disease (i. e.30; 100%)

Major findings related to pre-test knowledge of the nursing students regarding blood borne disease:
One mark was given to each correct answer. The maximum marks that should be obtained were 20 out of 20 questions. The possible range of score were from (0-20). The knowledge score given are as poor (0-7), average (8-15) and good (16-20).

Table 1: Frequency and percentage distribution of pre-test knowledge score of nursing students on blood borne disease.

Pre-Test			
Knowledge Level	Knowledge Score	Frequency	Percentage
Good	16-20	3	10%
Average	8-15	8	27%
Poor	0-7	19	63%

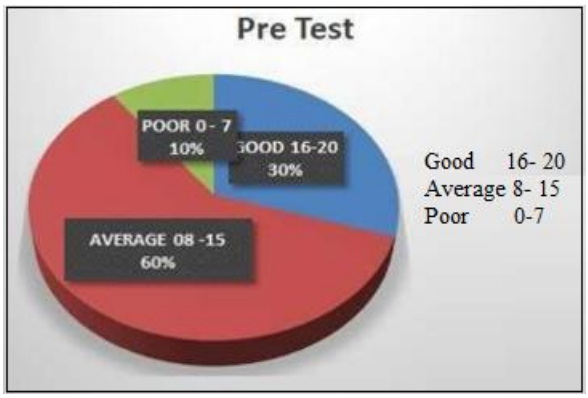


Figure 1: Pie chart showing frequency and percentage distribution of pre-test score of participants regarding blood borne diseases

Major findings related to post test scores of the participants regarding blood borne disease:
One mark was given to each correct answer. The maximum marks that should be obtained were 20 out of 20 questions. The possible range of score were from (0-20). The knowledge score given are as poor (0-7), average (8-15) and good (16-20).

Table 2: Frequency and percentage distribution of post-test knowledge score of nursing students on blood borne disease.

Post-Test			
Knowledge Level	Knowledge Score	Frequency	Percentage
Good	16-20	9	30%
Average	8-15	18	60%
Poor	0-7	3	10%

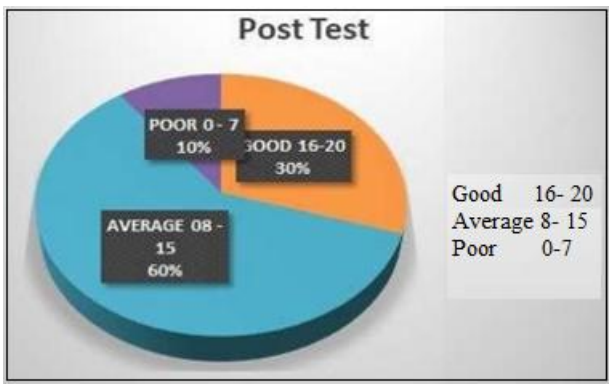


Figure 2: Pie chart showing frequency and percentage distribution of post test score of participants regarding blood borne diseases

Major findings related to effectiveness of structured teaching programme:
The calculated "t" value (3.1509) is more than the table value (2.045) at 0.05 level of significance which indicates that the structured teaching programme on blood borne disease is effective.

Table 3: t- test value to assess the effectiveness of structured teaching programme

Test	Mean	Standard Deviation	Mean Difference	Standard Error	t Test	P Value
Pre- Test	6.13	3.21	6.27	0.153	3.1509	0.003
Post – Test	12.4	2.37				

4. Discussion

The finding of the study which was conducted among 30 students of Smt Janak Rani Talwar School of Nursing showed and that 60% majority most had previous knowledge on blood born diseases, most (58.5%) of them acquired knowledge through curriculum. A supporting study which was conducted in Malaysia by Hamid MZ et al reveals that most (87.1%) had previous knowledge on blood born disease. [4] Findings of the present study show that majority (64.4%) of the students had average, 33.7% had good knowledge regarding blood borne diseases and its prevention. The results were supported a study which were carried out in Bengalkot by Khaleet al. reveals that Majority (66%) had average and 34% had good knowledge regarding universal precautions. [5]

5. Conclusion

Blood borne diseases have been one of the leading cause of needle stick injury above 18 year of age in the hospital. The study reveals that most of the students (16%) have not heard about blood borne diseases. Lack of knowledge can increase incidence of needle stick injury in the clinical area and create high impact on their health. From the study we identified that structured teaching programme was found to be effective in increasing the knowledge regarding blood borne disease among students as the computed "t" value was higher than the tabular "t" value showing significance of the study

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