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ORIGINAL ARTICLE

Effectiveness of Structure Teaching Programme on Knowledge and Attitude Regarding Blood Donation Among B.Sc. (N) Students in a Selected Nursing College

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ABSTRACT

Background: The urgency of ensuring a stable blood supply cannot be overstated. With the healthcare sector increasingly reliant on transfusions for emergency and elective procedures, the role of informed and motivated donors becomes critical. Nursing students represent a vital demographic not only as potential donors but also as educators and influencers within the healthcare system.

Aim and objective: To evaluate the effectiveness of structure teaching programme on knowledge and attitude regarding blood donation among the B.Sc (N) I & II year students in a selected nursing college

Methodology: Quantitative research approach, pre-experimental research design, one group pre-test-post- test was used. Students were selected using convenient sampling technique. The study was conducted at Venkateswara Nursing College, Chennai.

Results: Significant improvement was observed in the post-test scores ($p < 0.05$), indicating the effectiveness of the teaching programme. Post-test knowledge and

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attitude levels showed no significant association with the selected demographic variables.

Conclusion: This clearly infers that structure teaching programme administered to the students was found to be effective in improving the knowledge and attitude on blood donation.

KEYWORDS

• Effectiveness • Structure Teaching programme • Blood donation • Nursing students

INTRODUCTION

Blood donation is a cornerstone of modern healthcare, enabling life-saving interventions in trauma care, surgery, cancer treatment, and chronic illness management. Despite its critical importance, voluntary blood donation rates remain suboptimal in many regions, often due to misconceptions, lack of awareness, and attitudinal barriers. Globally, the demand for blood and blood products continues to rise, driven by population growth, aging demographics, and the increasing prevalence of medical conditions requiring transfusion. According to the World Health Organization, millions of lives are saved each year through blood transfusions, yet many countries struggle to maintain adequate supplies due to low donor turnout. Despite their medical training, many nursing students harbour misconceptions or lack sufficient motivation to participate in blood donation. This gap highlights the need for targeted educational interventions. A structured teaching program offers a promising solution, providing a focused and engaging learning experience that can reshape perceptions and encourage positive behavioural change.

Statement of the Problem

A pre-experimental study to assess the effectiveness of structure teaching programme on knowledge and attitude regarding blood donation among B.Sc (N) I & II year students in a selected nursing college at Chennai.

Objectives

1. To assess the pre test and post test level of knowledge and attitude regarding blood donation among B.Sc (N) I & II year students in a selected nursing college.
2. To evaluate the effectiveness of structure teaching programme on knowledge and attitude regarding blood donation among B.Sc (N) I & II year students in a selected nursing college.
3. To associate the selected demographic variables with the post test level of knowledge and attitude regarding blood donation among B.Sc (N) I & II year students in a selected nursing college.

HYPOTHESIS

1. NH_1: There is no significant effect of structure teaching programme on knowledge and attitude regarding blood donation among B.Sc (N) I & II year students in a selected nursing college.
2. NH_2: There is a no significant association of selected demographic variables with the post test level of knowledge and attitude regarding blood donation among B.Sc (N) I & II year students in a selected nursing college.

MATERIALS AND METHODS

A quantitative research approach with a pre-experimental one-group pre-test and post-test design was used to evaluate the effectiveness of structure teaching programme on knowledge and attitude regarding blood donation among B.Sc (N) I & II year students in a selected nursing college. The study was conducted in Venkateswara Nursing College, Thalambur, Chennai, among 79 students selected through non probability convenient sampling technique based on the inclusion criteria. After obtaining informed consent, demographic data, including age, gender, type of family, monthly income, place of residence, source of information and history of blood

donation were collected. A structured, self-administered questionnaire consisting of 30 items on blood donation was used for the pre-test to assess the knowledge on blood donation among the nursing students, with each correct answer scored as one and each incorrect answer scored as zero. The teaching programme, delivered using power point presentation with pictures, covering the criteria, indication, contraindication, preparation, procedure, health benefits, myths and facts and complications of blood donation. A modified Likert scale was used to assess the attitude off blood donation among the nursing students. Post-test using the same questionnaire was conducted to assess changes in knowledge and attitude on blood donation on the 8 day after the pretest. Knowledge level scores were categorized as <50% (Inadequate knowledge), 50-75% (moderately adequate knowledge), and >75% (Adequate knowledge). Whereas the attitude scale score was categorized as <50% (Unfavourable attitude), 50-75% (moderate attitude), and >75% (Favourable attitude). The effectiveness of the intervention was determined by comparing pre and post-test scores.

Plan for data analysis

The collected data were tabulated and analysed by using descriptive and inferential statistical methods. Frequency and percentage were used to describe the demographic variables. Mean and standard deviation was used to assess the pre-test and post-test level of knowledge and attitude regarding blood donation among the nursing students. Paired "t" test was used to find out difference between nursing student post-test level of knowledge and attitude regarding blood donation among the nursing students. Chi-square test was used to find out the association between post-test score of knowledge and attitude regarding blood donation among the nursing students with their selected demographic variables.

RESULTS & DISCUSSION

Among the students 72.15% were female and 27.84% were male, 72.15% were in the 18-19 age group, while 27.84% were 20-21 years old, 58.22% of students were from nuclear families, 37.97% from joint families, and 3.79% from extended families16.45% of the students had previously donated blood.

The pre-test level of knowledge according to the scores of the students revealed that 2(2.53%) had adequate knowledge, 65(82.27%) had moderate knowledge and 12(15.18%) had Inadequate knowledge. In addition, the pre test level of attitude showed that 50.63% had favourable attitude and 40.36% had a moderate attitude. The post-test level of knowledge revealed that 5(6.32%) had adequate knowledge, 72(91.13%) had moderate knowledge and 2(2.53%) had Inadequate knowledge. In addition the pre test level of attitude showed that 87.34% had favourable attitude and 12.65% had a moderate attitude.

Table 1: Effectiveness of knowledge on blood donation among the nursing students **N=79**

Level of Knowledge	Pre-test		Post-test		Paried T-Test
	Frequency	%	Frequency	%	
Inadequate knowledge	12	15.18%	2	2.53%	37.50
Moderate knowledge	65	82.27%	72	91.13%	–
Adequate knowledge	2	2.53%	5	6.32%	–

Table 2: Effectiveness of attitude regarding blood donation among the nursing students **N=79**

Level of Attitude	Pre-test		Post-test		Paired T-Test
	Frequency	%	Frequency	%	
Favourable	40	50.6%	69	87.34%	T=33.117
Moderate	39	49.36%	10	12.65%	–
Unfavourable	0	0%	0	0%	–

Association of post-test level of knowledge and attitude regarding blood donation among the nursing students

The demographic variables did not show a statistically significant association with post-test level of knowledge.

The study was supported by **Nighat Parveen, Perkash Kour (2024)** conducted a Quantitative Pre-experimental one group pre-test post-test design, non-Probability purposive sampling

technique was used to select 62 subjects. The data was collected by using self-structured knowledge questionnaire. Regarding blood donation of study subjects that the mean pre-test level knowledge among paramedical students regarding blood donation was 11.60 ± 2.755 and the mean post-test knowledge score of paramedical students was 25.26 ± 2.268 which indicate there was a mean difference of 13.660 in the level of knowledge among study subjects regarding blood donation. The results showed that there was statistically no significant correlation between pre-test knowledge score regarding blood donation among ist year paramedical students with their selected socio-demographic variables such as Age, Gender, Education of father, Education of mother, Socio-economic status of family, Type of residence, Occupation of father, occupation of mother and previous source of information.

A similar study by **Pathania Pallavi, Ritika Soni (2022)** evaluated the attitude regarding blood donation among student of college. Quantitative research approach was used with pre-Experimental one group pre-test design was used with for the study. Study population was B.A. 1st year student. Non-probability convenient sampling technique was used to select the sample. The sample size was 80 political science students. The data collected by 5 point Likert scale. The result of the study shows that the mean Post-test attitude score 71.80 was significantly higher than the mean pre-test attitude score 59.61 as evident by paired t-test 39.61 (p value-0.00**) at 0.05 level of significance. It showed that structured teaching programme was found effective to change the attitude of the students.

CONCLUSION

These findings underscore the effectiveness of structured teaching programs in shaping students understanding and attitudes toward blood donation. By fostering informed perspectives and encouraging proactive engagement, such initiatives can play a vital role in cultivating a generation that values and participates in life-saving practices like voluntary blood donation.

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Statement of Human and Animal Rights: All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008.

Statement of Informed Consent: Obtained from all the study participants.

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