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A study to assess the effectiveness of planned teaching programme on knowledge and attitude regarding blood donation among first year basic B.Sc nursing students at government college of nursing, BIMS, Belagavi

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Abstract

Background of the study and objectives: "A study to assess the effectiveness of planned teaching programme on knowledge and attitude regarding blood donation among First year Basic B. Sc nursing students at Government College of nursing, BIMS, Belagavi". The study was conducted with following objectives.

1. To assess the level of knowledge and attitude regarding blood donation among First year Basic B. Sc nursing student's.
2. To assess the effectiveness of planned teaching programme regarding blood donation among First year Basic B. Sc nursing students.
3. To determine association between post-test knowledge scores regarding blood donation among First year Basic B. Sc nursing student's with selected demographic variables.

Methodology: For the present study Pre experimental one group pre-test-post-test design was adapted. The independent variables were planned teaching programme and dependent variables are knowledge and attitude among First year Basic B. Sc Nursing students in Government College of nursing BIMS, Belagavi. By using non probability convenient sampling techniques 50, First year B. Sc nursing students are selected from Government College of Nursing BIMS, Belagavi. The pre-test was conducted on 50 samples followed by planned teaching programme is administered after seven days of post-test for the same sample group was conducted.

Results: Majority (98%) subjects where in the age group of 18- 20 years. 88% where Hindu, 86% belongs to nuclear family, 86% where subjects income is less than 50,000, about 68% where females, 825 subjects where having previous knowledge regarding blood donation, 58% subjects source of knowledge is books and 96% of them have donated blood previously. The mean value of pre-test of knowledge is 12.5% and attitude is 32.9 and after administration of planned teaching programme, the post mean value of knowledge is 25.06 and attitude score is 42.44 and P value is 0.05.

Keywords: Knowledge, Attitude and Planned teaching programme

Introduction

Blood is described as a connective tissue. It provides one for the means of communication between the cells of different parts of the body and it is composed of a fluid part called plasma and a cellular mass called corpuscles. The cell mass is also called as formed elements. Blood is that magic portion which gives life to another person. Though we have tremendous discoveries and inventions in science, we are not yet able to make the magic portion called blood. The human blood has no substitutes. Requirement of safe blood is increasing and regular voluntary blood donations are vital for blood transfusion service [2].

The main function of blood is to carry the substances from the place of production to the places where they are needed. RBC WBC and antibodies present in blood protect the body from diseases caused by micro-organisms. Blood maintains the internal equilibrium.

The excess heat produced is taken up by the blood and distributed throughout the body. Thus body helps in the regulation of body temperature. The different food substances like glucose, proteins, fats, minerals, enzymes etc. are stored in a great extent in the blood [3].

In ancient times, attempts at replacing lost blood involved the drinking of blood by the patient. But this custom of blood ingestion was found to have adverse reaction, one of the most important discoveries permitting thy transfusion of blood was then made, that of the formulation of the theory of the circulation of blood. Discovered by William Harvey in 1613. The discovery of the human ABO blood groups by Dr. Karl Landsteiner was the major step in Understanding that these wrong reactions where in fact due to what is known to be blood group incompatibility [4].

Science and technological developments became more and more involved in the development of transfusion during the

20th century. The development of electrical refrigeration resulted shortly after in the first "blood bank" being set up in Barcelona in 1936. Currently, voluntary blood donation process together with the sophisticated methods are used for the collection, storage, processing and testing of the blood required by the complex medical and surgical procedures [5]. There are several benefits of blood donation to the donor himself. The Kansas university medical center found that women who participate in blood donation experience a 30 percent fewer incidents of heart disease and stroke compared to those people who don't donate blood. The American journal of epidemiology stated that blood donation can reduce overall high level of blood which may protect against heart attack. Blood donation also reduces the risks cancers including liver, lung, colon, and stomach and throat cancers [4].

Need for the study

There is no other fluid, which can totally substitute blood in the human body. Blood contains nutrients, oxygen in adequate quantities and help in maintaining a balanced temperature of the body.

Fear of needle, fear of pain, fear of sight of blood, fear of future weakness, fear of possible ill effects, objection from elders, ignorance and illiteracy etc. are all reasons for many people who are hesitant in donating blood. All these myths and misconceptions are to be removed in order that adequate amount of blood is made available at blood banks for saving the patients [6].

Voluntary blood donation, traditionally considered as a fulfilling task, since to be losing its appeal. The heavy Shortfall in blood supply encourages racketeering in blood and blood products encouraging. Encouraging 'professional' deanship. Professional donors come from weaker sections of the society. The risk of infection is also high in blood collected from professional donors.

India's blood requirement is about 6 million units per year. Blood banks are able to collect only about 3 million unit per year. Patients actually die because the right kind of blood doesn't reach them in time. According to the association of voluntary blood donors forum on percentage of the total blood collection in individual states that during last one year shows a rapid decline on the no of donors throughout India. Tripura has ranked 1st on the list with an excellent figure of 95.3%. 2nd position has been out ranked by Tamil Nadu with 91.9%. West Bengal with 85%, Punjab 84.9%, Maharashtra 84.8%. In Karnataka each year requirement of blood a day is 900 to 1000units of blood for surgeries and accident victims, but the available blood is 500 to 600 units [7].

Nothing is comparable to the preciousness of human blood. In spite of the rapid and remarkable conquests of medical science today; there is no laboratory that manufactures blood. It is only in human beings that human blood is made and circulated. For those who required blood for saving their lives, sharing from other fellows is the only means. Hence, Donation rather voluntary donation is the only way of accumulating blood at safe storage to meet emergency requirement for saving lives. Over a million blood units are collected from donors every year: nevertheless, many more millions still need to be collected to meet the global demand and ensure sufficient and timely provision of blood [8].

Input: Input refers to energy, matter and information which enter the system. All systems must receive varying system type and amount of information from the environment, in this study first year Basic B.Sc. nursing students are the system and has input within system itself (subsystem). This input includes demographic variables such as age, gender, religion, education, type of family, income, previous knowledge, source of knowledge and previous blood donation. Assessment of knowledge and attitude regarding blood donation using standardized tools.

Throughput: Through put refers to the process by which the system process input and releases an output. The action needed to accomplish the desired task to achieve the desired output. In this study, refers to assess the knowledge and attitude of first year Basic B.Sc. nursing students by using structured knowledge and attitude questionnaires.

Output: Output refers to matters, energy, and information that leave a system. It is the result or product of the system in this study. It refers to the result of effectiveness of planned teaching programme among first year Basic B.Sc. nursing students.

Feedback: Feedback refers to the output that is returns to the system that allows it to monitor itself overtime in an attempt to move closer to a study known as equilibrium or homeostasis. Feedback may be positive, negative or neutral. The feedback circuit's helps in the maintenance of intact system, this concept not include in present study.

Summary

This chapter has dealt with the objectives of the study, operational definitions, assumption, hypothesis, and conceptual framework adopted for this study, delimitations and scope of the study. The next chapter explains the review of literature undertaken to lay a strong foundation for this study.

Methodology

Method of data collection

1. Institutional ethical clearance obtained from institutional authority.
2. Based on inclusion and exclusion criteria participants were selected.
3. Written informed consent will be obtained from the each participant.

Data collection tool

Tool consistent of a planned interview questionnaire to asses knowledge and attitude regarding blood donation among First year Basic B. Sc nursing students.

Section A: Questionnaire related to demographic profile

Section B: Questionnaire to evaluate the existing knowledge and attitude regarding blood donation among First year Basic B. Sc nursing students.

Data collection procedure

Prior to the study written permission will obtained from the participants regarding their willingness to participate in the study.

1. Pre-test conducted to assess the knowledge and attitude

- regarding Blood donation among First year basic B. Sc nursing students.
- 2. Followed by pre-test the investigator will administered pre planned teaching on Blood donation to improve knowledge and attitude of First year Basic B. Sc nursing students.
- 3. The investigator find out the improvement in knowledge and attitude regarding blood donation First year Basic B. Sc nursing students by using structured questionnaire.

Data analysis method

Data will be analyzed by using descriptive statistics mean, standard deviation, frequency and percentage of distribution will be used.

A Chi square test used to find out association between knowledge and attitude regarding blood donation among First year Basic B. Sc nursing students with selected demographic variables.

Result

Description of demographic variables of the subjects

Table 1: Group wise distribution of subjects based on their demographic variables

SL. No.	Demographic variables	Frequency	Percentage
Age in years			
1.	a) 18-20 years	49	98%
	b) 21-22 years	1	2%
	c) 23-25 years		
	d) 26-27 years		
Gender			
2.	a) Male	16	32%
	b) Female	34	68%
	c) Transgender		
Religion			
3.	a) Hindu	44	88%
	b) Christian	4	8%
	c) Muslim	2	4%
	d) Others		
Income			
4.	a) Less than 50,000	43	86%
	b) 50,000 -1 Lakh	3	6%
	c) More than 1 Lakh	4	8%
Type of family			
5.	a) Nuclear	43	86%
	b) Joint	7	14%
	c) Extended		
Previous knowledge regarding blood donation			
6.	a) Yes	41	82%
	b) No	9	18%
Sources of knowledge and attitude regarding blood donation			
7.	a) Journals	29	58%
	b) Books	13	26%
	c) Health professionals	8	16%
	d) Mass media		
Have you ever donated blood previously			
8.	a) Yes	2	4%
	b) No	48	96%

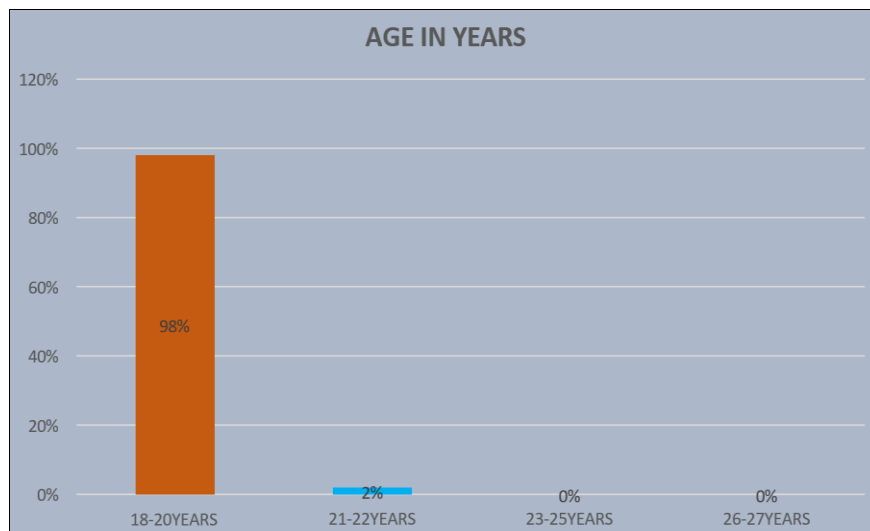


Fig 1: Bar diagram showing distribution of subjects based on their age

With regards to age maximum number of subjects (98%) where in the age group of 18-20years, (2%) where in the age

group 21-22 years and no one found in age group of 23-25 years, and 26-27 years.

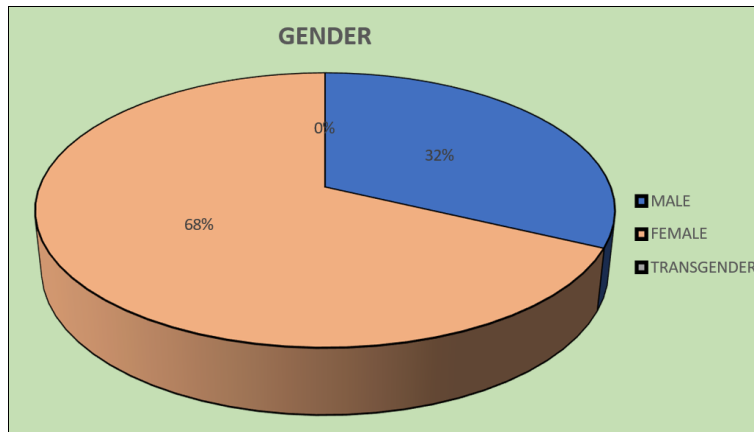


Fig 2: Pie diagram showing of subjects based on gender.

Regarding gender (68%) are females and (32%) are males out of 100.

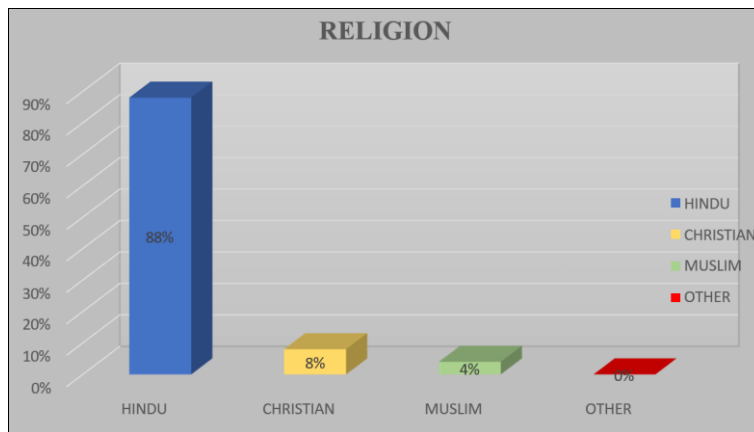


Fig 3: Column diagram showing distribution of subjects based on religion.

Regarding Religion (88%) was Hindu, (8%) were Christian, (4%) were Muslim, and no one of other caste.

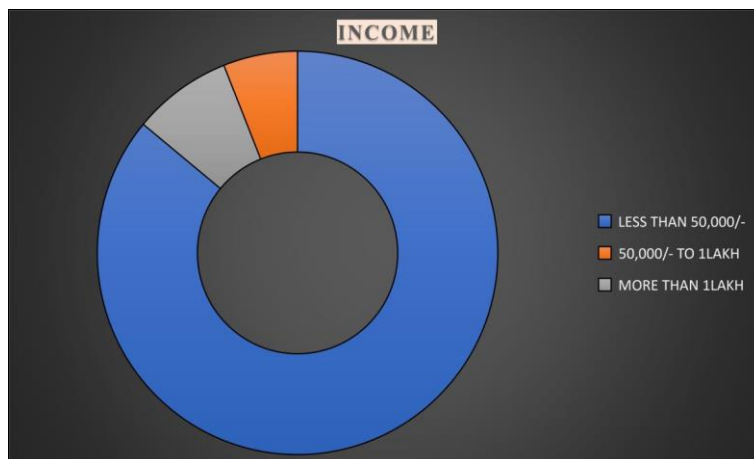


Fig 4: diagram showing distribution of subjects based on annual income.

Considering their annual income in Rupees per year were ranging less than 50, 000, were ranging from 50,000-1lakh, were ranging more than 1lakh.

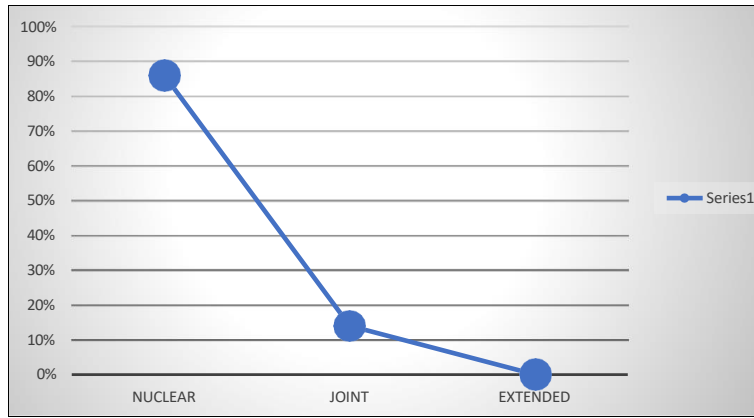


Fig 5: Line diagram showing distribution of type of subjects based on type of family.

With regards to their type of family were living in nuclear family, were living in joint family and no is living in an extended family.

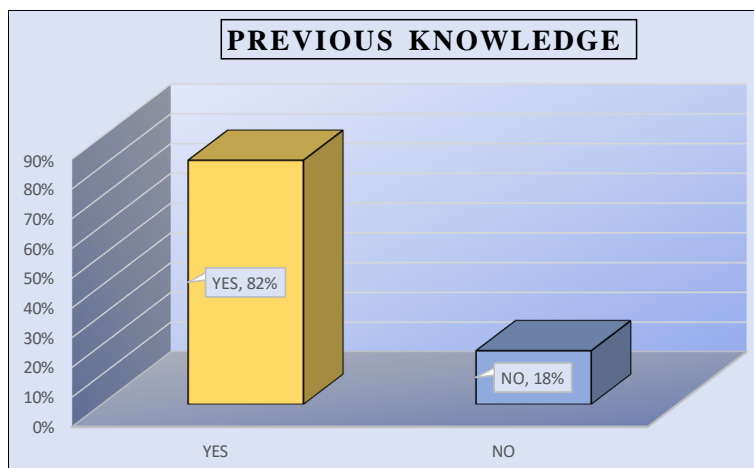


Fig 6: Column diagram showing a distribution of subjects based on previous knowledge.

With regard to their previous source of information on blood donation majority of them i.e. (82%) got information regarding blood donation, (18%) were not got any information regarding blood donation.

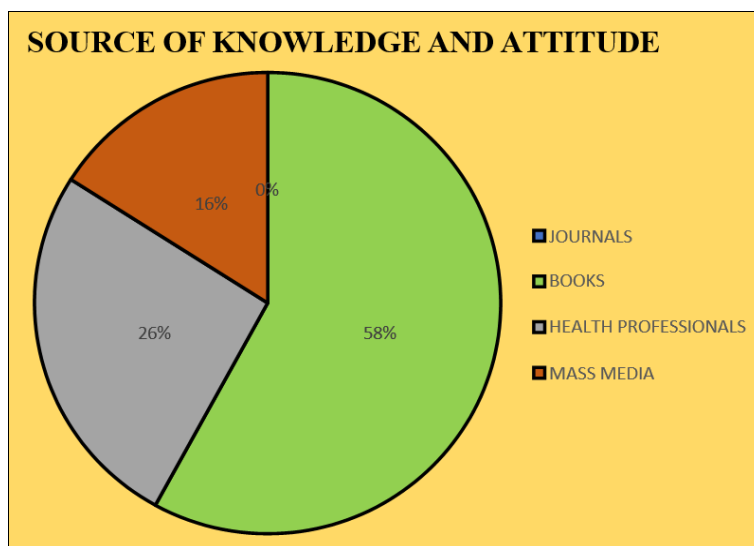


Fig 7: Pie diagram showing distribution of subjects based on their source of knowledge and attitude.

They got previous knowledge from (26%) journals, (58%) books, (16%) health professionals and no one got any information from mass media regarding blood donation.

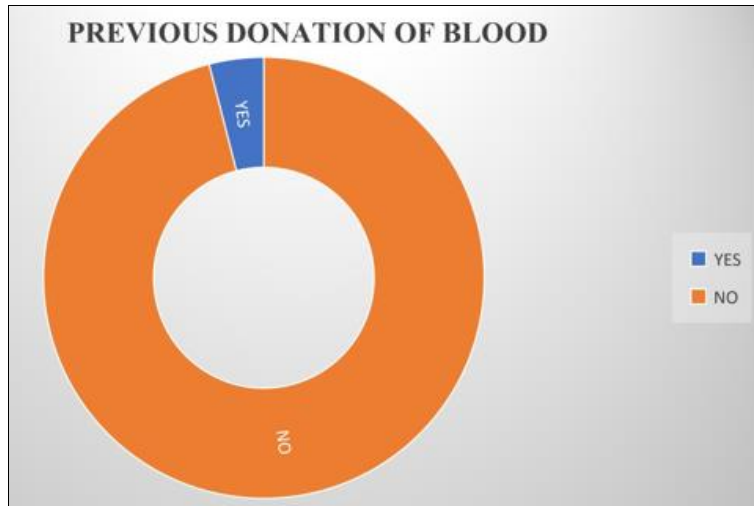


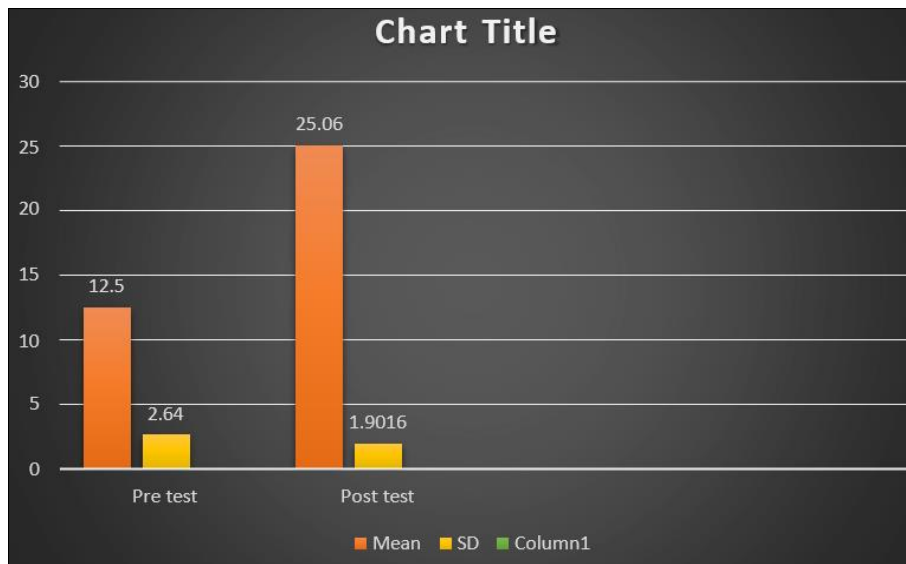
Fig 8: Diagram showing distribution of subjects based on previous donation of blood.

Regarding previous blood donation out of 100 have donated blood and have never donated blood.

Description of pretest and post-test knowledge scores of subjects

Table 2: Comparison of pre-test and post-test knowledge scores of subjects.

Sl. No.	Variables	Mean	SD	STD Error Mean
1.	Pre-test	12.5	2.64	
2.	Post-test	25.06	1.9016	



Description of pretest and post-test attitude scores of subjects

Table 3: Mean percentage scores and actual gain scores

Sl. No	Variables	Mean	SD	Std Error Mean
1	Pre-test	32.9	8.3	1.249
2	Post-test	42.44	3.0144	

Table 3: Depicts that post-test level of knowledge and attitude on blood donation was found that a significant difference between pre-test and post-test score.

Table 4: Association between socio demographic variables with pre-test knowledge regarding blood donation.

Sl. No.	Demographic characteristics	Knowledge <median	>Median	DF	Inference
1.	Age in years				
	▪ 18-20	30	19	6	P=5.4082<12.59

	▪ 21-22	01	00	Table rule	
	▪ 23-25	00	00	=12.59	
	▪ 26-27	00	00		
Gender					
2.	▪ Male	12	09	4	P=0.81<9.49
	▪ Female	19	10	Table Rule	
	▪ Transgender	00	00	=9.49	
Religion					
3.	▪ Hindu	27	17	6	P=0.2126<12.59
	▪ Christian	00	00	Table Rule	
	▪ Muslim	03	01	=12.59	
	▪ Others	01	01		
Income					
4.	▪ Less than 50000	28	18	4 Table Rule = 9.49	P=0.5287<9.49
	▪ 50000-1	01	00		
	▪ More than 1 lakh Lakh	02	01		
Type of Family					
5.	▪ Nuclear	28	17	4	P=6.638<9.49
	▪ Joint	03	02	Table Rule	
	▪ Extended	00	00	=9.49	
Previous Knowledge					
6.	▪ Yes	14	11	2 Table Rule = 5.99	P=1.532<5.99
	▪ No	17	08		
Source of Knowledge					
7.	▪ Journals	01	00	2 Table Rule = 5.99	P=5.1211<5.99
	▪ Books	10	11		
	▪ Professionals	09	07		
	▪ Mass media	12	01		
Have you ever donated Blood					
8.	▪ Yes	03	00	6 Table Rule = 12.59	P=6.9968<12.59
	▪ No	28	19		

Table 5: Mean percentage scores and actual gain scores

SL. No.	Variables	Mean	SD	Std Error Mean	Paired T test
1.	Pre-test	32.9	8.3		
2.	Post-test	42.44	3.014		

Table 4: depicts that post-test level of knowledge and attitude on blood donation was found that a significant difference between pre-test and post-test scores.

Table 6: Association between socio demographic variables with pre-test knowledge regarding blood donation.

Sl. No	Demographic characteristics	Knowledge <median	>Median	Df	Inference
Age in years					
1.	▪ 18 -20	27	22	2 Table Rule =12.59	P=0.055<12.59
	▪ 21-22	00	01		
	▪ 23-25	00	00		
	▪ 26-27	00	00		
Gender					
2.	▪ Male	10	11	4 Table Rule =9.49	P=2.0538<9.49
	▪ Female	15	14		
	▪ Transgender	00	00		
Religion					
3.	▪ Hindu	22	22	5 Table Rule =11.07	P=0.349<11.07
	▪ Christian	00	00		
	▪ Muslim	02	02		
	▪ Others	01	01		
Income					
4.	▪ Less than 50000	24	22	4 Table Rule =9.49	P=14.9634>9.49
	▪ 50000-1 lakh	00	01		
	▪ More than 1 lakh	01	02		
Type of Family					
5.	▪ Nuclear	20	25	4 Table Rule =9.49	P=3.63<9.49
	▪ Joint	05	00		
	▪ Extended	00	00		
Previous Knowledge					
7.	▪ Yes	12	13	2 Table Rule	P=1.1<5.99
	▪ No	13	12		

				=5.99		
8.	Source of Knowledge				6 Table Rule =12.59	P=4.1565<12.59
	▪ Journals	00	01			
	▪ Books	13	08			
	▪ Professionals	08	08			
	▪ Mass media	04	08			
9.	Have you ever donated Blood				2 Table Rule =5.99	P=8.496>5.99 *
	▪ Yes	03	00			
	▪ No	22	25			

Summary

Major findings in the study

- Knowledge and attitude on blood donation among the First year B. Sc Nursing students.
- In pre-test, mean of the knowledge is 12.5.
- In the post-test knowledge is 25.06.
- In pre-test mean of the attitude is 32.9.
- In post-test mean of the attitude is 42.44.
- The mean knowledge gained by the students 12.56.
- The mean attitude gained is 9.54.
- There is no association between pre-test knowledge and attitude of subjects and socio demographic variables.

Conclusion

- Knowledge and attitude regarding blood donation among first year Basic B.Sc. nursing students.
- In the pre-test, mean of the knowledge is 12.5.
- In the post-test, mean of the knowledge is 25.06.
- In the pre-test, mean of the attitude is 32.9.
- In the post-test, mean of the attitude is 42.44.
- The mean knowledge gained by the students.
- There is no association between pre-test knowledge of subjects and socio demographic variables.

Conflict of Interest

Not available

Financial Support

Not available

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