



A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING VOLUNTARY BLOOD DONATION IN MARUTI NURSING COLLEGE BETUL.

Mr. Gyaneshwar Barde

M.Sc. Nursing Student, People's College of Nursing & Research Centre, People's University, Bhopal M.P.

Mrs. Jyoti M. Nirapure*

Vice Principal, People's College of Nursing & Research Centre, People's University, Bhopal M.P. *Corresponding Author

ABSTRACT Donating blood is an act that can bring back a person from the jaws of death. In India about million units are collected annually against the requirement of eight and half million, for a population of one and half billion. There is an increased demand in supply of blood units in blood banks for everybody's. So the investigator felt a need to create awareness among the college students on Blood Donation.

KEYWORDS : Blood Donation, Knowledge, College and College Students.

INTRODUCTION

The Blood Donation is the process of any peoples has given their own Blood for the transfusion and save its in Blood bank for the needy people when they are required and people can also donate Blood for their own future requirement. It's a very safe procedure that can be life saving. Now a day Blood Donation is very important part of any health care delivery system. Transfusion of whole Blood and Blood component are such as in a systematic way and in a appropriately manner. This are very important things at the time of Blood transfusion. Blood is circulating fluid of our human body which carry oxygen with the help of RBCs, fighting substance through WBC, platelets which are cell that help to stop bleeding and plasma also circulate in Blood throughout the our body.¹

India's populations are approx 135 crores those require lots of Blood for life saving of the peoples. In our country average 8 Million unit of Blood are needed every year but only around 4 million Blood s can be reached from voluntary Blood donors. And other than it's obtain from replacement Blood Donation from relative or paid donors. According to recommended by govt of India Blood should be collected only from patients relative and from voluntary Blood donor also.²

In human body the volume of Blood average 5-6 liters. And 350-450 ml Blood s of volume are taken from donor and it's also depending upon the donor's body weight. Which Blood volume taken from the donor that can be restored within 24 hrs and Hb, cell component such as RBCs are restored in 2 month there for it is perfectly safe to donate Blood in every three month. After Blood donates do not occur any side effect, weakness in donor's body. While donor can also donate Blood again after 56 days in male and 84 days in females. This is the simplest processing of saving numerous life of people which require urgent Blood volume.³

NEED OF THE STUDY

The circulatory system distributes about 4-6 liters of Blood in the adult human body. The Blood mainly has 2 portion 1st is plasma and 2nd is Blood cells. Whole Blood is essential and life saving fluid. which cannot be manufactured in any factories and neither have any exact substitute and the Blood is also to be a good medium for the growing of any organism because of nutrients and oxygen are gets and they can easily infected to the Blood. If the highly large volume of infected Blood are transfuse directly then they can lead to transmission of various Blood diseases such as hepatitis, malaria, HIV etc.⁴

Many of the people need to the urgent Blood, so we can keep that person by donating the Blood and it is very essential because whole Blood is made up of several useful components these whole components perform their specific function in human body. The various Blood components are following as like RBCs, WBC, Platelets, and Plasma etc.⁴

Blood transfusion are often needed for trauma victims, due to accidents and burns, heart surgery, organ transplantation, patient receiving treatment for cancer and other diseases, such as sickle cell anemia and thalassaemia. Blood is also required in large quantity and

in a short time during natural disasters. Moreover, with an ageing population, and advances in medical treatment and procedures requiring Blood transfusions, the demand for Blood continues to increase.⁵

Promoting the idea of Blood Donation is one of the most important challenges for the public health. The development of Blood Donation depends on the level of knowledge about rules and profits of being Blood donor. In order to have a safe and sufficient Blood supply, it is necessary to rely on solid voluntary Blood donor base. While the WHO recommend countries to develop strategies for 100% voluntary Blood Donation. Donated Blood is the basic material for production of biological drugs, such as albumin and anti haemophilic factors. Putting all these together with the failure of technology, to produce an artificial substitute for human Blood able to be used for transfusions, we are still dependent on voluntary Blood donors.⁶

OBJECTIVES

The objectives of the study are:

- To assess the knowledge regarding blood donation before the implementation of planned teaching programme.
- To administer planned teaching programme on blood donation among nursing student.
- To evaluate the effectiveness of the planned teaching programme on blood donation among nursing student.
- To find out the associate between pre test and post test knowledge on blood donation with there selected demographical variables.

HYPOTHESIS

H1 : There will be significant difference between pre-test and post-test knowledge scores of Nursing College students regarding Blood Donation.

H2 : There will be significant association between post test knowledge scores of Nursing College students regarding Blood Donation with their selected demographic variables.

ASSUMPTIONS

The study assume that Nursing student have some knowledge regarding Blood Donation

DELIMITATIONS

- The study will be limited to 80 Maruti Nursing College students.
- Students whose age is below 18yrs and above 21 years.
- Students who are not willing to participate in the study.
- Students who are not available during the period of study.

CONCEPTUAL FRAMEWORK

- A conceptual framework is a analytic tool accompanied by more variations and contexts. It is correlated concept on abstraction that are meet together in some regional scheme by important to a common theme. Conceptual framework is a devise/tool that helps to stimulate conduct a good research and the increase of knowledge by assuming both directing and impetus framework may serve as a spring board for scientific

advancement. Conceptual framework selected for the study is based on General systems theory which was first introduced by Ludwig Von Bertalanfy. This study is done particularly to prepare a structured teaching program and to evaluate its effectiveness in terms of gain in knowledge. In this theory main focus is on the discrete Nursing and their inter-relationship which make up and describe the whole. The theory defines system, as a complex interaction, which means that system consists of two or more converted elements which an organize whole and which interact with each other. In open system, there are varying degree of interaction with the environment from which the system receives input and gives back output in the form of matter of energy and information. In the present study, the students are considered as open system. All systems must receive varying type and amount of information from the environment. The system uses this input to maintain its homeostasis.

METHODOLOGY

The research design used for this study was one group pre test post test design which belongs to the pre- experimental study. The sample size of the study comprised 80 Maruti Nursing College students from Betul M.P who were selected through the convenient sampling technique. Pre test assessment was done by using structured knowledge questionnaire to assess the knowledge of Maruti Nursing College students regarding Blood Donation . After conducting the pre-test. They were given structured teaching programme and post –test was conducted within one week using the same tools used for the pre test.

RESULTS:

Majority of student (67.7%) were at the age group of 18-19 years and majority of the female (73.7%) were participated in the study . Highest percentage of student (81.2%) had not donated blood previously . The result revealed that out of 80 Maruti Nursing college student , 42 student (52.50%) had inadequate level of knowledge . 38 student (47.50%) had moderate level of knowledge and none of them had adequate level of knowledge regarding Blood Donation in pre test . In pot test two student (2.50%) Hade Moderate level of knowledge and 78 student (97.50%) had adequate level of knowledge regarding Blood Donation . there was a lack of knowledge among Maruti Nursing college students regarding Blood Donation before administering structured teaching programme. In post test , the knowledge of the student were increased. The result further revealed that there is a significance association between post test knowledge scores and post test attitude scores of student with their age, gender, mothers education, type of family, monthly income of the family, place of residence, dietary pattern , source of information, previous experience of Blood Donation .

**SECTION –A
FREQUENCY AND PERCENTAGE DISTRIBUTION OF COLLEGE STUDENTS ACCORDING TO SOCIO-DEMOGRAPHIC VARIABLES**

Demographic Variables	Category	Students	
		Frequency (f)	Percentage (%)
Age in years	18-19	51	63.7
	20-21	29	36.3
Gender	Male	21	26.3
	Female	59	73.7
Mother's Education	No formal education	6	7.5
	Primary Education	10	12.5
	Secondary Education	39	48.8
	Graduate Education	25	31.2
Type of Family	Nuclear	55	68.8
	Joint	17	21.2
	Extended	8	10.0
Monthly Income	Rs. 5000-10000	42	52.5
	Rs. 10001-Rs.15000	16	20.0
	Rs. 15001 – Rs. 2000	5	6.3
	Rs. 20001 and above	17	21.2
Place of Residence	Rural	48	60.0
	Urban	32	40.0

Dietary Pattern	Vegetarian	8	10.0
	Non-Vegetarian	20	25.0
	Mixed	52	65.0
Source of Information	Family Members	39	48.8
	Peer Group	10	12.5
	Health Care Personnel	6	7.5
	Mass Media	15	18.7
	Others	10	12.5
Have you donated Blood previously	Yes	15	18.8
	No	65	81.2
Total		80	100.0

Fig.1. Distribution of Maruti Nursing College students by age in years.

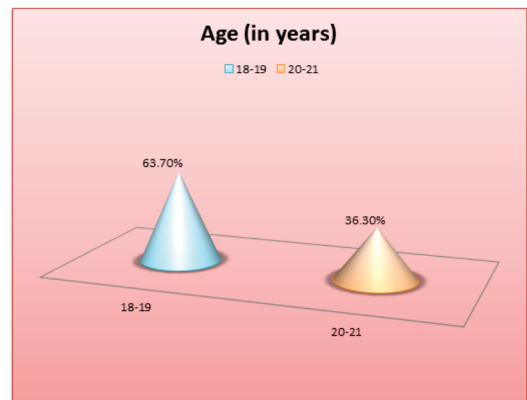


Fig.2. Distribution of Maruti Nursing College students by their gender

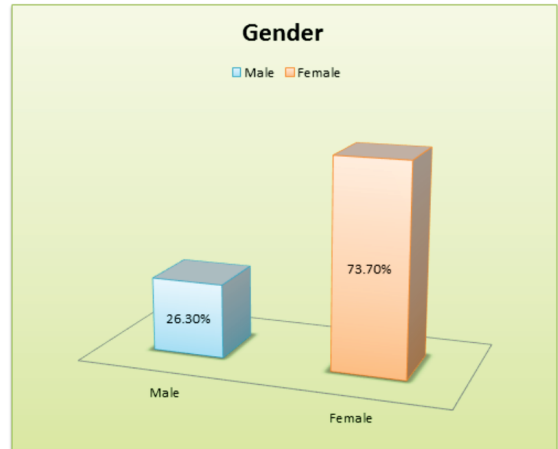


Fig.5. Distribution of Maruti Nursing College students by their mother education

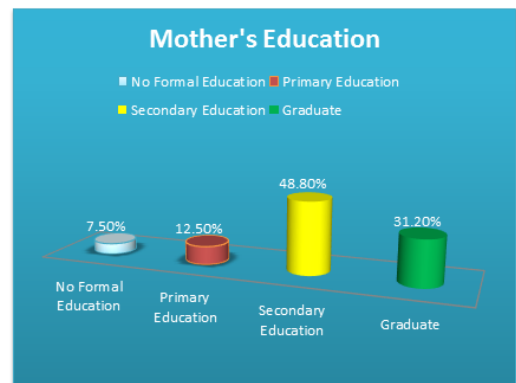


Fig.6. Distribution of Maruti Nursing College students by their type of family

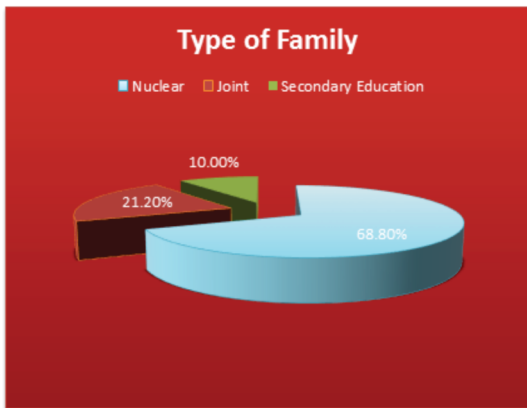


Fig.7. Classification of Maruti Nursing College students by monthly income of their family

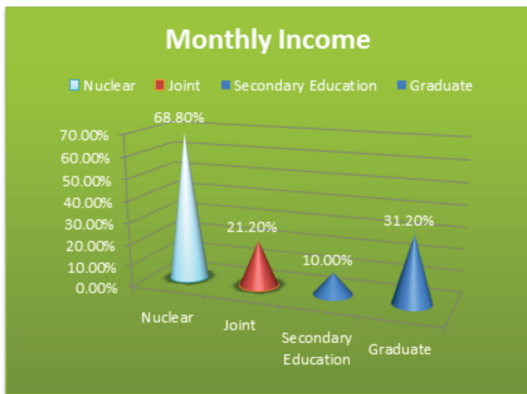


Fig.8. Classification of Maruti Nursing College students by their place of residence

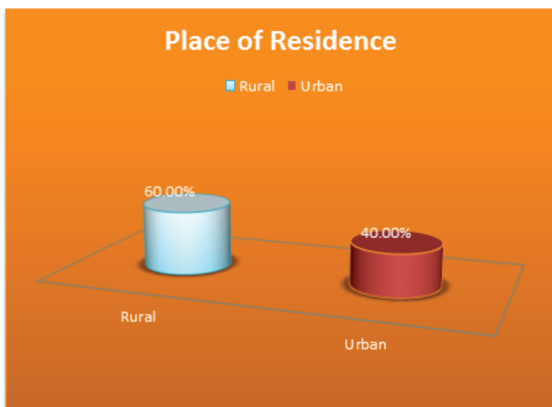


Fig.9. Distribution of Maruti Nursing College students by their dietary pattern

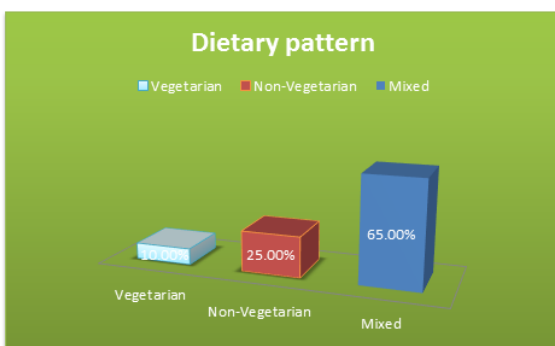


Fig.10. Distribution of Maruti Nursing College students by source of information

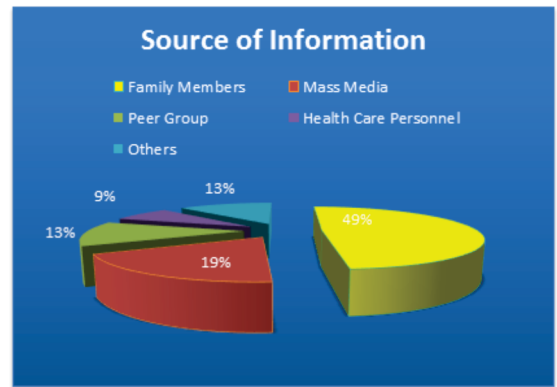
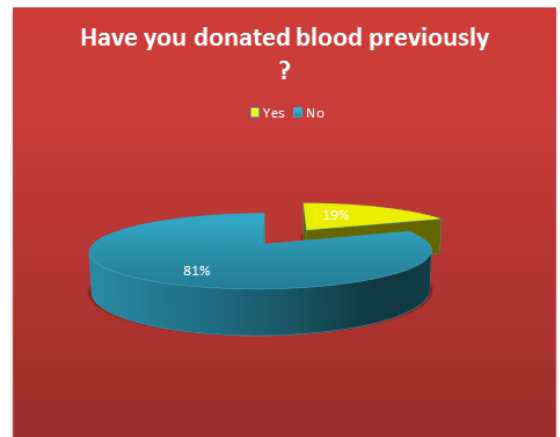


Fig.11. Distribution of Maruti Nursing College students by previous experience of Blood Donation



SECTION-B

Pre test and post test knowledge scores of Maruti Nursing College students regarding Blood Donation

TABLE -2

Classification of Maruti Nursing College students based on their knowledge level regarding Blood Donation

n=100

Knowledge Level	Category	Classification of students			
		Pre test		Post test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Inadequate	<50% score	42	52.5	0	0.0
Moderate	57-75% score	38	47.50	2	2.50
Adequate	>75% score	0	0.0	78	97.50
Total		80	100.0	80	100.0

Fig. 12. Classification of Maruti Nursing College students based on their pre test and post test knowledge level regarding Blood Donation

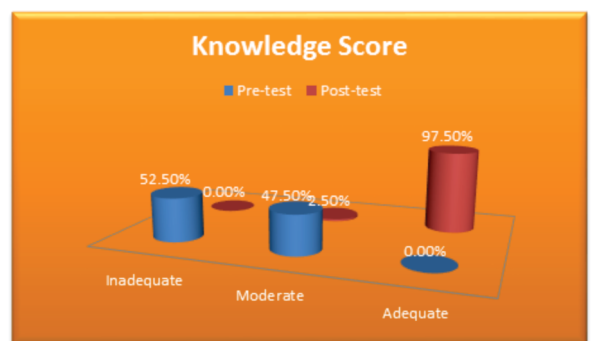


TABLE -3
Overall Pre-test and Post test Mean Knowledge scores of Maruti Nursing College students regarding Blood Donation

Aspects	Max Score	Students Knowledge			Paired 't' test
		Mean	Mean (%)	SD (%)	
Pre test	30	14.59	48.63	11.20	30.83*
Post test	30	25.78	85.93	6.10	
Enhancement	30	11.19	37.30	10.8	

*significant at 5% level, $t(0.05,79df)=1.96$

Fig. 12. Classification of Maruti Nursing College students based on their pre test and post test knowledge level regarding Blood Donation

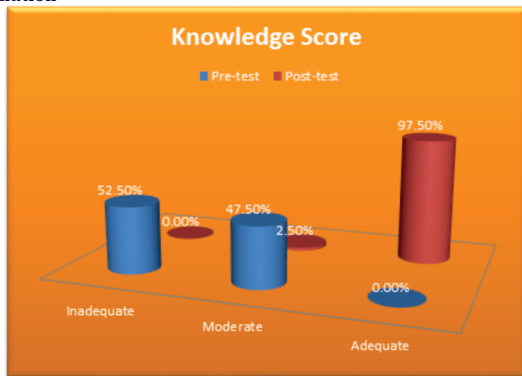


TABLE -3
Overall Pre-test and Post test Mean Knowledge scores of Maruti Nursing College students regarding Blood Donation

Aspects	Max Score	Students Knowledge			Paired 't' test
		Mean	Mean (%)	SD (%)	
Pre test	30	14.59	48.63	11.20	30.83*
Post test	30	25.78	85.93	6.10	
Enhancement	30	11.19	37.30	10.8	

*significant at 5% level, $t(0.05,79df)=1.96$

Fig.13. Distribution of over all Pretest and Post test Mean knowledge scores on effectiveness of structured teaching programme on Blood Donation among students

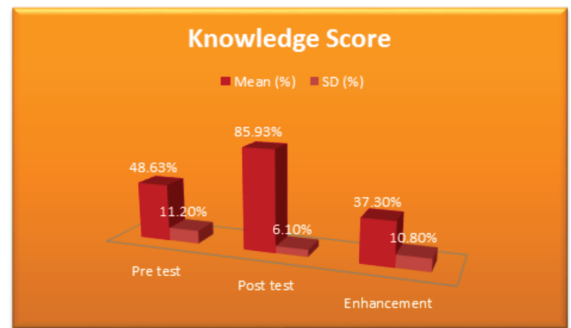


TABLE-4
Area Wise mean pre test and Post test Knowledge scores of Maruti Nursing College students regarding Blood Donation

S.No.	Knowledge Areas	No. of Q.	Max Score	Pre test Knowledge				Post test Knowledge				Enhancement	Paired 't' test
				Mean	SD	Mean (%)	SD (%)	Mean	SD	Mean (%)	SD (%)		
I	Introduction	6	6	3.31	1.00	55.16	16.66	5.53	0.62	92.16	10.3	37.0	18.60*
II	importance	2	2	0.93	0.65	46.50	32.5	1.66	0.48	83.0	24.0	36.5	9.58*
III	Meaning	5	5	2.98	1.23	59.60	24.60	4.49	0.59	89.8	11.8	30.2	12.03*
IV	Criteria For donating Blood	3	3	1.00	0.76	33.33	25.33	2.53	0.55	84.33	18.33	51.0	16.21*
V	Contra-indication For donating Blood	3	3	1.06	0.83	35.33	27.66	2.28	0.69	76.0	23.0	40.67	11.57*
VI	Preparation For Blood Donation	1	1	0.73	0.45	73.0	45.0	0.91	0.28	91.0	28.0	18.0	3.50*
VII	Procedure For Blood Donation	2	2	1.08	0.65	54.0	32.0	1.75	0.44	87.5	22.0	33.5	9.26*
VIII	Donor Recovery	2	2	0.63	0.58	31.50	29.0	1.59	0.59	79.5	29.5	48.0	12.60*
IX	Health benefits of donating Blood	3	3	1.45	0.73	48.33	24.33	2.54	0.55	84.66	18.33	36.33	13.28*
X	Myths and facts	2	2	0.65	0.59	32.50	29.50	1.58	0.57	79.0	28.5	46.50	10.24*
XI	complications and risk to donors	1	1	0.79	41.0	79.0	41.0	0.94	0.24	94.0	24.0	15.0	3.16*
Combined		30	30	14.59	3.36	48.63	11.20	25.78	1.83	85.93	6.10	37.3	30.83*

* Significant at 5% level, $t(0.05,79df)=1.96$

The above table 4 depicts the area wise mean pretest and test post test knowledge scores of the Maruti Nursing College students regarding Blood Donation

Section D. Association between the post test knowledge level of Maruti Nursing College students regarding Blood Donation with their selected demographic variables.

TABLE -5

Association between post test knowledge level of Maruti Nursing College students regarding Blood Donation with their selected socio-demographic variables: Age, Gender, mothers education, type of family, monthly family income.

Demographic Variables	Category	No. of Student	Students Knowledge						X2 value	P-value
			Inadequate		Moderate		Adequate			
			n	%	n	%	n	%		
Age in years	18-19	51	-	-	1	1.25	50	62.50	6.05s	<0.05
	20-21	29	-	-	1	1.25	28	35.00		
Gender	Male	21	-	-	1	1.25	20	25.00	18.05s	<0.05
	Female	59	-	-	1	1.25	58	72.50		
Mother's Education	No formal education	6	-	-	-	-	6	7.50	34.10s	<0.05
	Primary Education	10	-	-	-	-	10	12.50		
	Secondary Education	39	-	-	1	1.25	38	47.50		
	Graduate Education	25	-	-	1	1.25	24	30.00		
Type of Family	Nuclear	55	-	-	1	1.25	54	67.50	87.70s	<0.05
	Joint	17	-	-	1	1.25	16	20.00		
	Extended	8	-	-	-	-	8	10.00		
Monthly Income	Rs. 5000-10000	42	-	-	-	-	42	52.50	36.70s	<0.05
	Rs. 10001-Rs.15000	16	-	-	2	2.50	14	17.50		
	Rs.15001 – Rs. 2000	5	-	-	-	-	5	6.25		
	Rs. 20001 and above	17	-	-	-	-	17	21.25		
Total		80	-	-	2	2.50	78	97.50		

TABLE – 6

Association between the post test Knowledge level of Maruti Nursing College students regarding Blood Donation with their selected socio-demographic variables: place of residence, dietary pattern, source of information, previous experience of Blood Donation .

Demographic Variables	Category	No. of Student	Students Knowledge						X2 value	P-value
			Inadequate		Moderate		Adequate			
			n	%	n	%	n	%		
Place of residence	Rural	48	-	-	2	2.50	46	57.50	77.50	<0.05
	Urban	32	-	-	-	-	32	40.0		
Dietary Pattern	Vegetarian	8	-	-	-	-	8	10.00	38.80s	<0.05
	Non- vegetarian	20	-	-	-	-	20	25.00		
	Mixed	52	-	-	2	2.50	50	62.50		
Source of Information	Family members	39	-	-	-	-	39	48.75	43.87s	<0.05
	Peer group	10	-	-	1	1.25	9	11.25		
	Health care Personnel	6	-	-	-	-	6	7.50		
	Mass media	15	-	-	1	1.25	14	17.50		
	Others	10	-	-	-	-	10	12.50		
Have You donated Blood previously	yes	15	-	-	1	1.25	14	17.50	31.25s	<0.05
	No	65	-	-	1	1.25	64	80.00		
Total		80	-	-	2	2.50	78	97.50		

CONCLUSION

The present study shows that:

- Majority of Maruti Nursing College students (63.7%) were at the age group of 18-19 years.
- Majority of females (73.7%) were participated in the study.
- Maximum number of student's mothers (48.8%) were having secondary education.
- Most of the Maruti Nursing College students (68.8%) belonged to nuclear family.
- Highest percentage of Maruti Nursing College students monthly income (52.5%) was Rs.5,000-10,000.
- Most of the Maruti Nursing College students (60%) live in rural area.
- Maximum number of Maruti Nursing College students (65%) were following mixed dietary pattern.
- Majority of Nursing College students (48.8%) were getting information from their parents.
- Highest percentage of Nursing College students (81.2%) had not donated Blood previously.
- There was a lack of knowledge among Maruti Nursing College students regarding Blood Donation before administering structured teaching programme.
- In post test, the knowledge level of the Nursing College students were increased. The statistical paired t-test indicates that the difference between the pretest and posttest knowledge scores found statistically significant at 5 percent level (p<0.05). The „t“ value obtained for knowledge score was *0.8* P < 0.05. The „t“ value obtained for attitude score was 11.37 P < 0.05. From these, it was concluded that the structured teaching programme was effective in increasing the knowledge of Maruti Nursing College students regarding Blood Donation.

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