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**Shambu Singh**  
Assistant Professor,  
Dharamshila Narayana Super  
Speciality Hospital, Delhi,  
India

**Dr. Rajendra Prasad Sharma**  
Associate Professor, Mahatma  
Gandhi Nursing College,  
Jaipur, Rajasthan, India

**Corresponding Author:**  
**Shambu Singh**  
Assistant Professor,  
Dharamshila Narayana Super  
Speciality Hospital, Delhi,  
India

## **The effectiveness of planned teaching programme (PTP) on knowledge regarding blood donation among non-professional college students**

**Shambu Singh and Dr. Rajendra Prasad Sharma**

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### **Abstract**

Blood is a vital and lifesaving fluid which can neither be manufactured in factories, nor substituted with blood of any other creature. At the same time, blood proves to be a good medium for the growth of any organism because of its nutrients and oxygen, thus gets easily infected. Direct transfusion of large volume of infected blood can lead to transmission of various diseases like hepatitis, syphilis, malaria and HIV. Health care professionals including doctors, nurses and paramedical staffs are the guardians of the community. It is the duty of the entire health care establishments to ensure speedy recovery of their patients by providing quality health care.

**Keywords:** transfusion, oxygen, blood cells, platelets, plasma

### **Introduction**

Blood is the part of life that is given to those who need it by those who have the resource to satisfy the need. The love of fellow human and a desire to share something of one self is what singles out a blood donor from the others. Emergencies occur every minute. For each patient requiring blood, it is an emergency and the patients could have set back if blood is not available. A single donation from person can help one or more patients. This is possible because whole blood is made up of several useful components. These components perform special functions in your body and in the body of patients who receive blood. The various blood components are Red Blood Cells, White Blood Cells, Platelets, Plasma and selected Plasma Proteins. Each of these components can be separated from persons donated volume of blood and transfused into a specific patient requiring that particular component. Thus, many can benefit from one unit of blood. India with a population of about one hundred cores is naturally the country which requires lot of blood to save lives of its citizens. It has been quoted that there is a need of about 8 million units of blood every year in our country.

The blood is needed every minute to replace blood loss because of accidents, to treat shock, for minor and major surgeries, for burn victims. Patient suffering from anemia, during childbirth for the mothers, for children suffering from ailments like thalassemia, hemophilia, leukemia & blood cancer. In India 60% of population are eligible to donate blood, yet less than 5% do. Unfortunately, 83% of global population living in developing countries have access to only 40% of blood supplied rather than 1voluntary non-remunerated low risk donors & this blood in 60% of cases is collected from paid & replace donors.

### **Background of Study**

Blood is a complex fluid in which a variety of cells RBC's, white blood cells, and platelets are suspended in plasma. Blood circulates through the heart and vascular system. Circulating blood performs many functions such as supplying cells with oxygen from the lungs and absorbed nutrients from the GI tract, removing waste product from tissue to kidneys, skin and lung for excretion. Transporting hormones from their origin in endocrine glands to their target in order parts of the body Protecting the body from dangerous micro -organism, promoting homeostasis (the arrest of bleeding), regulating body temperature by heat transfer. The goal of all blood donor recruitments and retention is to provide sufficient amounts of blood and blood products to all patients in all hospitals in a country at all times.

The WHO recommends that all countries should be self-sufficient in all blood products and that all blood donation should be voluntary, anonymous and non-remunerated. To achieve this goal, government, blood banks and volunteers must work together, every part of the world understand for voluntary blood donation now a days but still lack of knowledge and have many confusion and factors such as social, economic, fear (psychological), to obstruct and voluntary blood doing best job on motivation for voluntary blood donation including health education, camps, motivation etc.

**Objective of the study**

1. Asses the knowledge of student regarding blood donation before and after planned teaching programme
2. Develop and administer planned teaching programme
3. Evaluate the effectiveness of planned teaching programme
4. Identify the association between selected socio

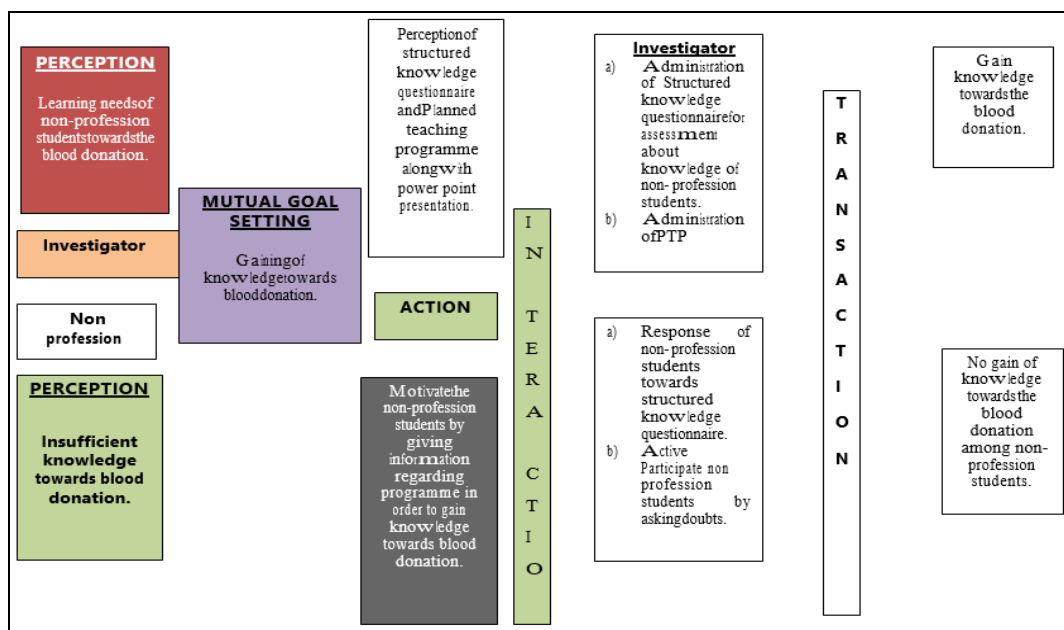
demographic variables with knowledge score.

**Assumption**

1. The planned teaching programme regarding blood donation will improve the knowledge of student.
2. The student may have some knowledge about the blood donation.
3. Filling the communication gap by providing adequate communication techniques.
4. The planned teaching programme will motivate students and accuracy.

**Hypothesis**

- H1:- There will be significant difference between pre-test & post-test knowledge scores regarding blood donation among non-professional college students.
- H2:- There will be significant association between knowledge scores with their selected demographic variables.

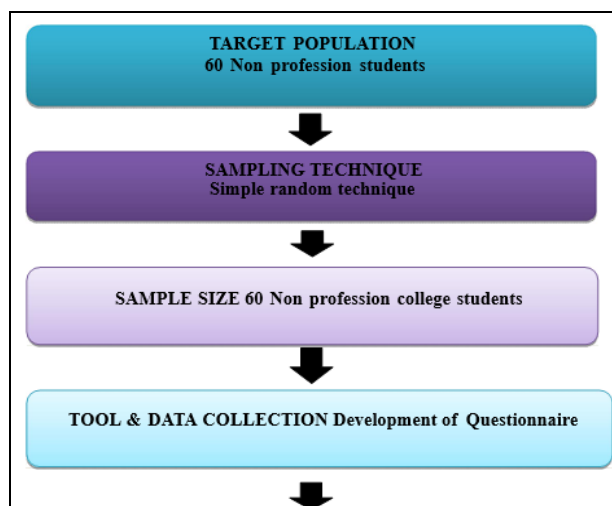


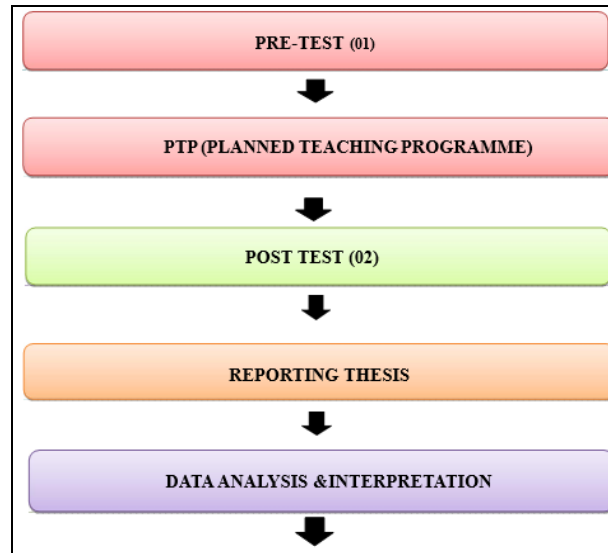
**Fig 1:** Conceptual Frame Work

**Research Methodology**

The methodology adopted for the study on blood donation and the different steps under taken after gathering and organizing data for investigation. It includes description of research approach, research design, setting of the study,

population, sample and sampling technique, development and description of the data collection tool, pilot study, development of Self Instructional Module, procedure of data collection and plan for data analysis





**Fig 2:** Schematic Representation of Research Design

**Data analysis and interpretation**

Data analysis is a process of organizing and synthesizing data in such way that research questions can be answered

and tested. Statistical procedure enables the researcher to organize, analyse, interpret, evaluate and communicate numerical information meaningfully.

**Table 1:** Frequency and percentage distribution of samples based on demographic variables n=60

S. No.	Demographic Variable	Frequency(f)	Percentage (%)
<b>1.</b>	<b>Age Group</b>		
1.1	18-20 years	42	70
1.2	20-23 years	18	30
1.3	23-26 years	00	00
1.4	26-28 years	00	00
<b>2.</b>	<b>Gender</b>		
2.1	Male	60	100
2.3	Female	00	00
<b>3</b>	<b>Area of living</b>		
3.1	Urban	35	58.33
3.2	Rural	25	41.67
<b>4.</b>	<b>Religion</b>		
4.1	Hindu	46	76.67
4.2	Sikh	3	5
4.3	Muslim	7	11.66
4.4	Christian	4	6.67
<b>5.</b>	<b>Faculty</b>		
5.1	Arts	20	33.33
5.2	Science	20	33.33
5.3	Commerce	20	33.33
<b>6.</b>	<b>Pervious personal experience about the blood donation</b>		
6.1	Yes	5	8.33
6.2	No	55	91.67
<b>7.</b>	<b>Source of pervious knowledge regarding blood donation</b>		
7.1	TV	28	46.66
7.2	Radio	3	5
7.3	News paper	9	15
7.4	Camp	15	25
7.5	No Knowledge from any source	5	8.34

**Table 2:** Distribution of subjects overall pre-test & post-test knowledge scores on blood donation among non-profession College Student. N = 60

Level of knowledge Percentage Scoring	Pre-test		Post-test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Poor (0-35%)	5	8.33	0	0
Average (36-70%)	55	91.67	1	1.67
Good (70-100% )	0	0	59	98.33
Total	60	100.0	60	100.0

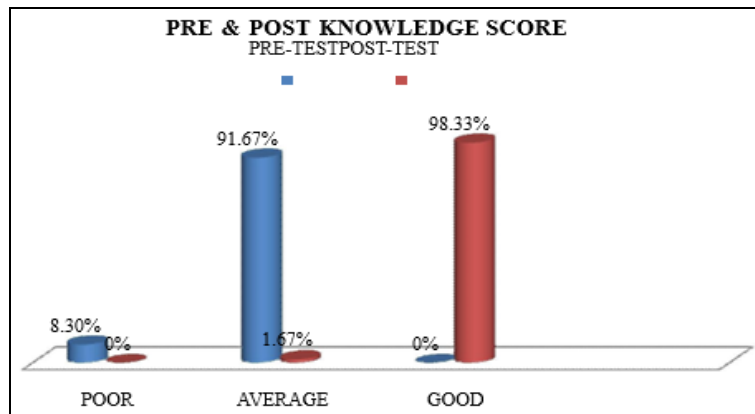


Fig 3: Distribution of Students by Pre-test and Post-test Knowledge Score

Table 3: Distribution of subjects overall effectiveness of pre- test & post-test knowledge scores n = 60

Aspect of knowledge	Pre-test			Post-test			Effectiveness (post-test & pre-test)		
	Mean	S.D.	Mean %	Mean	S.D.	Mean %	Mean	S.D.	Mean %
Introduction and definition of Blood Donations	2.16	1.14	43.03	4.65	0.47	93	2.49	0.53	49.97
Bnefits and Criteriya of Blood Donations	4.15	1.39	46.11	7.4	0.87	82.22	3.25	0.23	36.11
Procedure and Myths & Facts of Blood Donations	2.83	1.10	47.16	4.81	0.68	80.16	1.98	0.37	33
Total	9.14	3.63	45.7	16.86	2.02	84.3	7.72	-1.6	38.6

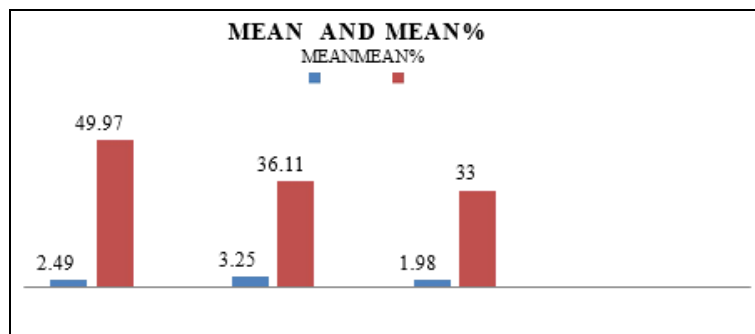


Fig 4: Bar graph showing distribution of Students by effectiveness of Mean and mean % Knowledge Score

Table 4: Overall Comparison of Pre-Test and Post-Test Mean knowledge Score of Respondents

Category	N	Mean	Std. Deviation	Mean Difference	t-test
Pre-test	60	9.14	3.63	7.72	3.753
Post-test	60	16.86	2.02		

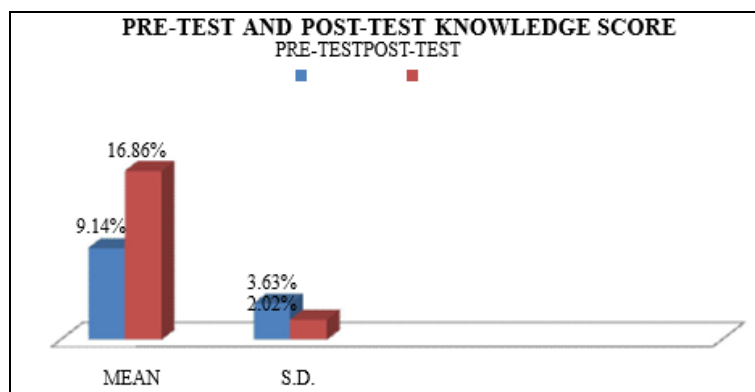


Fig 5: Bar graph show distribution of Students by effectiveness of Mean and mean% Knowledge Score

Table 5: Distribution of association between level of knowledge scores and selected demographic variable n = 60

S. No.	Demographic Variable	Frequency	Poor	Average	Good	Calculated Chi-square x2	Tabula ted Value	d.f
1	Age Group							
1.1	18-20 years	42	0	0	42	2.346	5.911	2
1.2	20-23 years	18	0	1	17			
1.3	23-26 years	00	00	00	00			
1.4	26-28 years	00	00	00	00			

2		Gender					
2.1	Male	60	0	1	59		
2.2	Female	00	00	00	00		
3		Area of living					
3.1	Urban	35	0	0	35	1.411	5.911
3.2	Rural	25	0	1	24		
4		Religion					
4.1	Hindu	46	0	0	46	8.144	12.591
4.2	Sikh	3	0	0	3		
4.3	Muslim	7	0	1	6		
4.4	Christian	4	0	0	4		
5		Faculty					
5.1	Arts	20	0	0	20	1.96	9.488
5.2	Science	20	0	1	19		
5.3	Commerce	20	0	0	20		
6		Pervious personal experience about the blood donation					
6.1	Yes	5	0	0	5	.0821	5.911
6.2	No	55	0	1	54		
7		Source of pervious knowledge regarding blood donation					
7.1	TV	28	0	1	27	61.92	79.082
7.2	Radio	3	0	0	3		
7.3	News paper	9	0	0	9		
7.4	Camp	15	0	0	15		
7.5	No Knowledge from any source	5	5	0	0		

**Table 6:** Abstract of chi-square result of demographic variables and knowledge regarding blood donation among non-profession student n=60

No	Variables	d.f.	Calculated Chi-square value	Tabulated Chi-square value	Level of Significance
1	Age	2	2.346	5.911	NS*
2.	Gender	0	0	0	NS*
3	Area of living	2	1.417	5.911	NS*
4	Religion	6	8.144	12.592	NS*
5	Faculty	4	1.96	9.488	N.S*
6	Previous personal experience	2	.0821	5.911	NS*
7	Source of previous knowledge regarding blood donation	8	61.92	79.082	NS*

\*\*S-significant \*NS- No-Significant

**Conclusion**

The whole study was cost effective, simple and carried out in an acceptable way to assess the level of knowledge regarding blood donation. The result show that non profession students in adequate knowledge regarding of Age, Area of living, Religion, Faculty, Previous personal experience about blood donation.

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