



A QUASI-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMM ON KNOWLEDGE AND ATTITUDE REGARDING BLOOD DONATION AMONG UNDERGRADUATE STUDENTS IN SELECTED COLLEGES.

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ABSTRACTA This study was conducted to assess the effectiveness of planned teaching programme on knowledge and attitude regarding blood donation among undergraduate students in selected colleges of city. To assess the level of knowledge regarding blood donation among undergraduate Students in selected colleges. To assess the attitude regarding blood donation among undergraduate students in Selected colleges. To assess the effectiveness of planned teaching programme regarding blood donation among undergraduate students in selected colleges. To find the association between the knowledge score and attitude with their selected demographic variables. A Quasi experimental design was used in this study. A purposive sampling technique was used to select 350 students. Data were collected through one tool that includes 1st part demographic variables, 2nd part knowledge questionnaire and 3rd part liker scale was used to assess the attitude before and after planned teaching programme. The data collection was analysed using descriptive and inferential statistics. The result based on the objective collected data was analysed by using descriptive and inferential statistics like mean, median, standard deviation, paired t test, chi square test. An analysis finding depict that the corresponding $p < 0.05$, so null hypothesis is rejected. The change in the post-test knowledge score and attitude of students is significantly higher than pre-test score. Planned teaching programme is proved an effective method to improve knowledge and attitude of students regarding blood donation. The study also had significant association between knowledge score and blood group, hemoglobin level, previous knowledge of blood donation. And significant association between attitude and previous knowledge of blood donation. The finding of the study also shown that student's poor knowledge and attitude regarding blood donation before the administration of planned teaching programme. The post- test knowledge score and attitude were significantly greater than pre-test score of students after utilization of planned teaching programme. The study also proved that planned teaching programme was effective method in enhancing knowledge and attitude of students about blood donation. Hence this study is strongly recommended that development and implementing training and health education programme for students are essential for blood donation also further researches are needed.

INTRODUCTION:

Blood is the fluid of life, growth and health. It transports oxygen, nourishment, hormones and even disease fighting substances from one part of the body to the other. Its loss due to any injury or disease is life threatening. Though Science has made countless discoveries and inventions, we are not yet able to make this magic potion, which has no substitute. Requirement of safe blood is increasing and

regular voluntary blood donations are vital for blood transfusion services.

The blood supply is critically low in all societies. Blood is considered a national resource; hence it is the responsibility of the State to secure that blood reserves are sufficient and safe. Blood donation is an example of genuine altruism where the altruistic behavior is incorporated into the self as a role.

Our body has approximately 5.5 liter of blood of which only 350 ml - 450 ml of blood is taken depending upon weight of donor. The withdrawn blood volume is restored within 24 hours and the hemoglobin and cell components are restored in 2 months. Therefore, it is perfectly safe to donate blood every three months. One pint of blood given by a donor can save the lives of as many as three people. The blood goes to those suffering from cancer, severe burns, leukemia, anemia and hemophilia and others undergoing surgery. A donor's body will not weaken or miss that one-pint, and donors can donate blood again after 56 days. The simple process of donating blood takes less than an hour and can save numerous lives. And it might just make your life a little healthier. Donation of blood is a behavioral phenomenon and is always considered a humanitarian act. During national emergencies like the Gujarat earthquake, there was no dearth of voluntary donors. What is not realized perhaps is that, there is a necessity for blood even otherwise and hence there is a need for motivation to donate blood voluntarily. The decision to donate blood is motivated by a host of factors including altruism, social behaviors, social pressure and replacement.

NEED FOR STUDY:

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.

A Patient may be critically ill, whether he lives or dies depends on a unit of blood of the right type available in the blood bank at right time. India is always facing a shortage of blood. People have to run from pillar to post for a unit of blood in their own city or another city where they go for treatment of a loved one. There are times when a patient dies for want of blood.

STATEMENT OF PROBLEM:

A quasi-experimental study to assess the effectiveness of planned teaching programme on knowledge and attitude regarding blood donation among undergraduate students in selected colleges.

OBJECTIVES:

- To assess the level of knowledge regarding blood donation among undergraduate students in selected colleges.
- To assess the attitude regarding blood donation among undergraduate students in selected colleges.
- To assess the effectiveness of planned teaching programme regarding blood donation among undergraduate students in selected colleges.
- To find the association between the knowledge score and attitude with their selected demographic variable

HYPOTHESIS:

- Ho1: - There will be no significant difference in knowledge score regarding blood donation among undergraduate students before and after planned teaching programme.
- Ho2: - There will be no significant difference on attitude regarding blood donation among undergraduate students before and after planned teaching programme
- Ho3: - There will be no association between knowledge score and attitude with selected demographic variable.

METHODOLOGY:**RESEARCH APPROACH**

Research approach used for this study was evaluative approach.

RESEARCH DESIGN

The research design adopted for the present study is “one group pretest-posttest research design (Quasi experimental)

Group	Assessment of pre test	Planned teaching Programme	Assessment of post test
G	O1	X	O2

G - Groups

O1- Assessment of pre-test knowledge and attitude on Blood donation among the Arts Student of Undergraduate College, at city

X - Administration of planned teaching programme on Blood donation among the Arts Student of Undergraduate College, at city

O2 – Assessment of post-test knowledge and attitude on Blood donation among the student Arts Student of Undergraduate College, at city

VARIABLES:

Independent variables: Planned teaching programme on blood donation.

Dependent variables: Knowledge and attitude of students regarding blood donation.

POPULATION:

Accessible population: The aggregate of cases that conform to eligibility criteria and that are accessible as subjects for a study.

Target population: In this study the target population was the all-selected students studying in arts stream.

Sample size: 350

Sampling technique: -Non probability purposive sampling was used for this study

CRITERIA FOR SELECTION OF SAMPLE: -**INCLUSION CRITERIA:**

- From selected undergraduate arts colleges students.
- Only arts undergraduate students
- Who are willing to participate in the study.

EXCLUSION CRITERIA:

- College students who are not available at the time of data collection.
- UG. Of science stream
- Sick, during the time of data collection.

Description of the tool: - The tool consists of three sections.

Section- A

Socio-demographic data on different variables such as age, Gender, Blood group, Hemoglobin, Blood donor and source of information.

Section-B

It consists of 30 items knowledge regarding blood donation among the selected students. Each item has four options with one most appropriate answer. The maximum score for the correct response to each item was one and for the wrong answer the score is zero. Thus for 30 items, the maximum obtainable score was 30.

Section-C

It consists of 15 items Attitude (Positive 8 statement and Negative 7 statement) regarding blood donation among the selected students. Each item has five rates with stick the one rate. The maximum score for the correct

response to each item was one and for scoring according to Liker rating scale. Thus for 15 items, the maximum obtainable score was 75.

1= strongly disagree

2= Disagree

3= Uncertain

4= Agree

5= Strongly Agree

Preparation of planned teaching Programme: -

The planned teaching Programme was prepared by the investigator based on the following steps:

1. Referred through the literature regarding Knowledge and attitude of Blood donation.
2. organization of the contents of the Planned teaching programme.
 - General information regarding Blood donation
 - Definition & Meaning of Blood donation
 - Importance of Blood donation
 - Types and Indication of Blood donation
 - Health benefits
 - Eligibility of blood donation
 - Complication and risk factor

VALIDITY, PILOT STUDY AND RELIABILITY

Validity: The validity was established by experts from different departments, i.e. Community Health Nursing, and statisticians. The experts were selected based on their experience and interest in the problem being studied.

Reliability: - In order to establish the reliability of the tool it was administered to college students. To establish the reliability of the structured questionnaire **Karl Pearson retest** method coefficient, was used which to be Knowledge 0.87. and Attitude **0.89**. Thus, the tool was found reliable.

Pilot Study

The pilot study was conducted in selected Undergraduate college student at, City from Dusirbid on 06\12\2020 to 14\12\2020 the college student, to assess feasibility of the study and to decide the plan for data analysis. On the 1st day the investigator approached the subjects, informed them regarding the objectives of the study and obtained the consent after assuring the subjects about the confidentiality of the data. The investigator administered a self-structured tool. Planned teaching Programme was taught to the subjects. On the 7th day posttest was taken. The data was analyzed by statistical tests. Pilot study results indicated that tool is feasible and practicable.

Method of data analysis:

- Frequency distribution was plotted to compare the distribution of pre-test and post-test knowledge score.
- Mean, Standard deviation of pre and post-test knowledge scores was computed.
- “T” test was applied to determine the significance of mean difference between mean pre-test and post-test knowledge scores.
- Data related to effectiveness of planned teaching Programme was analysed in terms of frequency, proportion, mean and standard deviation of pre and post-test knowledge scores.
- The significance was calculated by using mean, standard deviation and calculated ‘P’ value. Chi-square was used to find the association of knowledge score with demographic variables & the findings were documented in tables, graphs & diagram.

RESULT:**Section I: Finding related to demographic characteristics of participants.**

- ❖ Majority of samples 306(87.43%) belong to the age group of 18-21 years, 28(8%) belong to 22-24 years, and 16(4.57%) belongs to 25 years and above age group.
- ❖ Regarding gender, majority of the samples 217(62%) belongs to female and 133(38%) were males.
- ❖ Regarding known to samples about their blood group, majority of the samples 209(59.71%) were know their blood group whereas 141(40.29%) were does not known their blood group.
- ❖ With regards to known to hemoglobin level, majority of the sample 222(63.43%) were know their hemoglobin level whereas, 128(36.57%) were does not known their hemoglobin level.
- ❖ Regarding blood donation by samples, majority of the sample 306(87.43%) have not donated blood whereas only 44(12.57%) were donated blood.
- ❖ With regards to interest to donate blood, majority of the sample 254(72.57%) were interested to donate blood whereas 96(27.43%) are not interested to do so.
- ❖ With regards to previous knowledge regarding blood donation, majority of the sample 188(52%) were not having any knowledge whereas 168(48%) were having previous knowledge regarding blood donation.
- ❖ Regarding source of information regarding blood donation, majority of the sample 51(30.36%) got information by mass media, 49(29.17%) were got information through health professionals, 45(26.79%) were heard information through friends and relatives and 23(13.69%) were got information from other source.

Section II: Finding related to assessment of level of knowledge and attitude regarding blood donation among undergraduate students in selected colleges.

- Majority of the samples 239(68.28%) had inadequate knowledge, 111(31.71%) had moderate knowledge and 0(0%) had adequate knowledge regarding blood donation.
- Majority of the samples 205(58.57%) had positive attitude, 142(40.57%) had neutral attitude and 3(0.85%) had negative attitude on blood donation among undergraduate students.

Section III: Evaluate the effectiveness of planned teaching programme regarding blood donation among undergraduate students in selected colleges.

The analysis of mean, S.D. and mean percentage of the knowledge score in pre-test and post-test revealed that the mean percentage in pre-test was 13.93 where as in post-test mean percentage was 16.69. This shows the effectiveness in planned teaching programme on knowledge regarding blood donation.

Section IV: Correlate the knowledge and attitude scores among undergraduate college student.

In pretest knowledge and attitude scores there was a positive correlation with a significant level of 0.05, although the relationship between these variables is weak. In post test knowledge and attitude scores it depicts that there is a weak correlation between said tests.

Section V: Association between the knowledge and attitude with their selected demographic variables.

The study demographic variables were; age, gender, know about blood group, know about hemoglobin level, have been donated blood Interest to donate blood, previous knowledge regarding blood donation and source of information. In order to compute the association between the level of knowledge score and demographic variables chi-square was applied and the value was observed with 5% significance level.

The chi-square value of the demographic variables, such as know your blood group was $\chi = 11.878$ with a 1 degree of freedom, know hemoglobin level $\chi = 6.158$ with a 1 degree

of freedom and previous knowledge about blood donation $\chi = 11.453$ with a 1 degree of freedom showed statistically significant association with knowledge level and there were no other demographic variables found association with level of knowledge on blood donation among undergraduate students.

The chi-square value of the demographic variables, such as previous knowledge about blood donation $\chi = 11.06$ with a 1 degree of freedom showed statistically significant association with attitude level and there were no other demographic variables found association with level of attitude on blood donation among undergraduate students.

REFERENCE:

1. Indian journal of Medicine, Volume-II, page no. 24-26.
2. Nilsson Sojka B, Sojka P., The blood-donation experience: perceived physical psychological And social impact of blood donation on the donor. Vox Sang 2003 Feb; 84(2): 120-8.
3. Oswalt RM, Hoff TE. The motivations of blood donors and non-donors: A community survey. Transfusion 1977; 15:68-73.
4. Watanabe KK, Scriber GB, Hayes A, Williams AE. Factors influencing the recruitment and retention of young donors. Transfusion 1999; 39: Supplement: A3-20A.
5. Indian journal of Medicine, Volume-II, page no. 24-26.
6. Nilsson Sojka B, Sojka P., The blood-donation experience: perceived physical psychological And social impact of blood donation on the donor. Vox Sang 2003 Feb; 84(2): 120-8.
7. Oswalt RM, Hoff TE. The motivations of blood donors and non-donors: A community survey. Transfusion 1977; 15:68-73.

TOOL: -**SECTION- A: - DOMOGRAPHIC VARIABLES****1. Age**

- a. 18-21 year
- b. 22-24 year
- c. 25 year and above

2. Gender

- a. Male
- b. Female

3. Do you know your blood group?

- a) Yes.
- b) No

4. Do you know your hemoglobin level?

- a) Yes
- b) No

5. Have you ever donated blood?

- a) Yes
- b) NO

6. If Yes, how many times you donated blood?

-----time.

7. If No, are you interested to donate blood?

- a) Yes
- b) No

8. If No, why**9. Previous knowledge regarding blood donation**

- a. Yes
- b. NO

10. source of information

- a) Mass media
- b) Friends and relatives
- c) Health professional
- d) Others

SECTION- B: - STRUCTURED KNOWLEDGE QUESTIONNAIRE**1. Blood is a**

- a. connective tissue
- b. organ
- c. system
- d. cell

2. The normal of blood in our body

- a. 1-2 lit.
- b. b.2-3 lit.
- c. c.3-4 lit.
- d. d.5-6 lit.

3. The normal level of hemoglobin in human being

- a. 12 gm
- b. 16 gm
- c. 18 gm
- d. 24 gm

4. Function of blood in our body.

- a. Protection
- b. Body build.
- c. Regulation of body temperature.
- d. Energy

5. Blood donation means

- a. Giving blood voluntarily
- b. Giving blood for test
- c. Receiving blood
- d. Giving blood to self

6. The normally blood is extracted during each donation.

- a. 150-250 ml
- b. 350-450 ml
- c. 400-500 ml
- d. 1 litter

7. Person can donate blood at

- a. Blood bank



- b. Camps
- c. Hospitals
- d. All of the above

8. After blood donation, what happens to the amount of blood in our body.

- a. Amount of blood decreases permanently
- b. It gradually returns to the normal level within a month
- c. It takes more than a year to return to normal level
- d. Don't know

9. The normal platelet count in adult is:

- a. 100,000 to 300,000 mm³
- b. 150,000 to 250,000 mm³
- c. 150,000 450,000 mm³
- d. 200,000 300,000 mm³

10. Blood transfusions for a

- a. To increase the amount of blood
- b. To increase the blood's ability to carry oxygen
- c. To decrease the risk of bleeding
- d. a, b and c

11. Blood donation can be transfused.

- a. Whole blood
- b. Platelets
- c. Red blood cells
- d. All of the above

12. various types of blood group

- a. H, I, J, KO
- b. A, B, OAB
- c. A, B, AB, O, Rh Factor
- d. A, B, C, D

13. The common Blood group among these is:

- a. AB-Negative
- b. B-Positive
- c. Rh factor
- d. AB-Positive

14. Universal donor”.

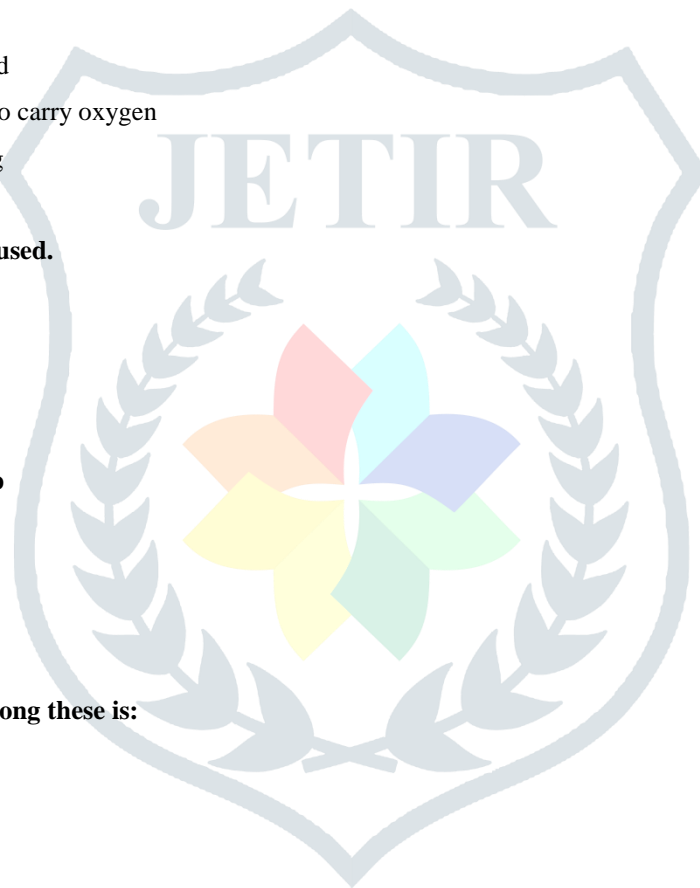
- a. O+
- b. O-
- c. A+
- d. A-

15. Universal receivers.

- a. AB⁻
- b. B⁺
- c. A⁻
- d. AB⁺

16. Sickle cell anemia, red cell count is.

- a. Reduced
- b. Increased



- c. Normal
- d. None

17. A healthy person can donate blood.

- a. 1 Month.
- b. 2Month.
- c. 3 Month
- d. 4 Month

18. After donating blood, what is he/she given to eat.

- a. Heavy diet
- b. Soft drinks/juice
- c. Normal Saline
- d. Nothing is given

19. Who can donate blood?

- a. A fit and healthy person
- b. Person having disease
- c. Children
- d. Adult

20. From which age can a person start donating blood?

- a. 12 years
- b. 17 years
- c. 25 years
- d. 30 year

21. Average weight for blood donation

- a. 35 kg
- b. 45 kg
- c. 65 kg
- d. 70 kg

22. One donation can help save life of how many people.

- a. 1 people
- b. 2 people
- c. 3 people
- d. 4 people

23. Time to take blood donation

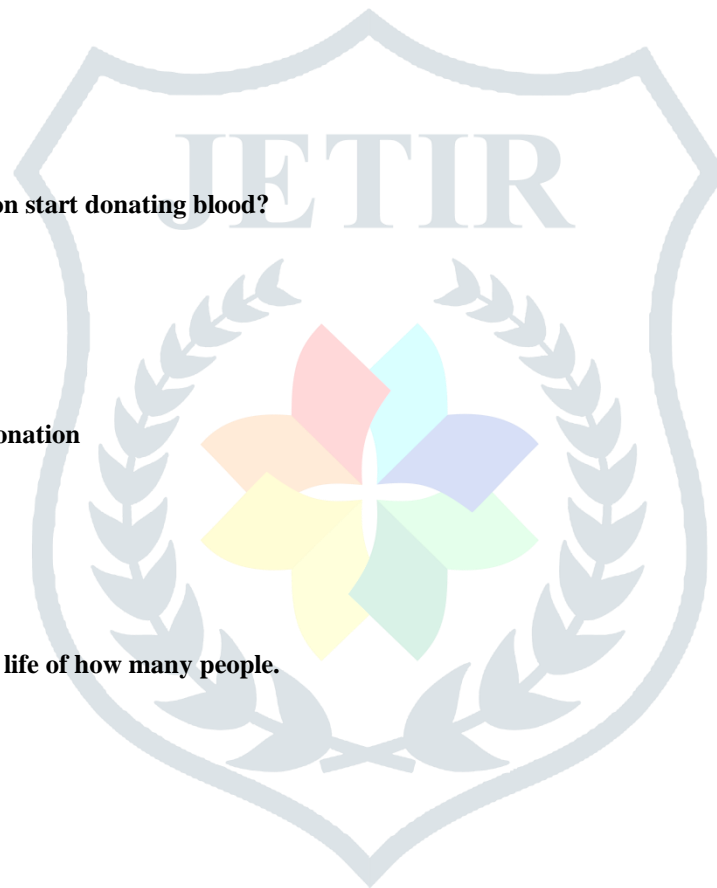
- a. 10- 15 minutes
- b. 4- 6 hours
- c. 50- 60 minutes
- d. 1 hour

24. one's donated blood after can donate blood

- a. At any time
- b. Every 2 months
- c. Every 3 months
- d. Every 6 months

25. Among these persons, who cannot donate blood permanently?

- a. Person with HIV/AIDS
- b. Person suffering from jaundice
- c. Person suffering from anemia



d. Persons who have undergone surgical procedure

26. The following person cannot donate blood.

- a. Can carry on with normal daily works after some minutes
- b. Have to take rest for some days.
- c. Is admitted to hospital
- d. Suffers from HIV AIDS

27. The conditions in which Bleeding time does not become prolonged is:

- a. Deficiency of vitamin K
- b. Hemophilia
- c. Thrombocytopenia
- d. Afibrinogenemia

28. Clotting time has normal value of:

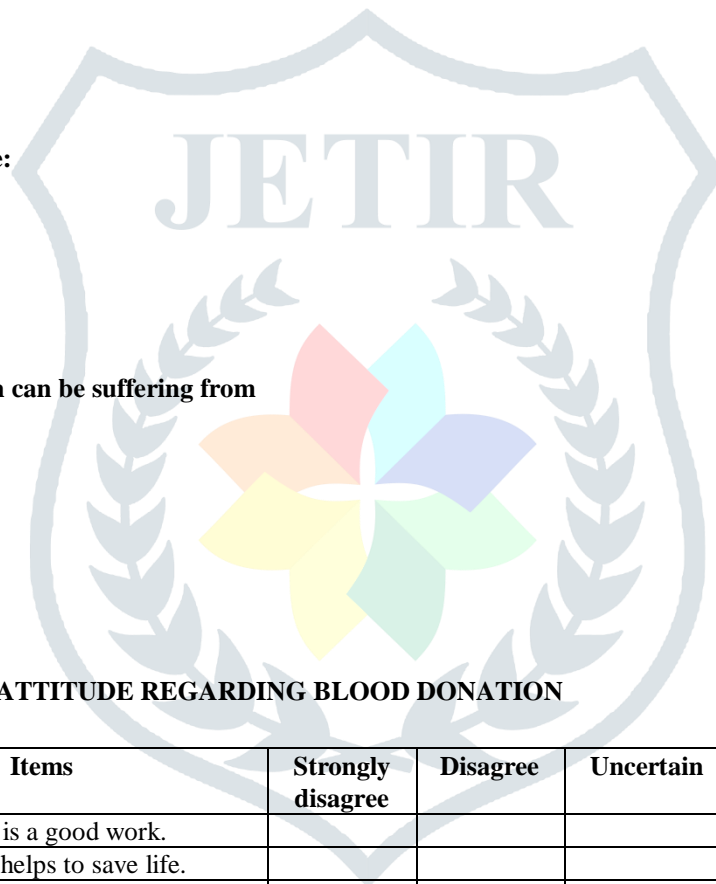
- a. 2 to 8 min
- b. 3 to 6 min
- c. 4 to 5 min
- d. 6 to 8 min

29. Donation of blood can cause:

- a. Malaria
- b. AIDS
- c. Hepatitis
- d. No disease

30. After blood donation person can be suffering from

- a. Dehydration
- b. Pain
- c. Weakness
- d. High blood pressure



SECTION-C: - ASSESS THE ATTITUDE REGARDING BLOOD DONATION

Sr no.	Items	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
1	Donating blood is a good work.					
2	Blood donation helps to save life.					
3	Blood donation is a safe process.					
4	Blood donation is the essential and integral part of health care system.					
5	Blood donation does not cause any harm to our health.					
6	A person feels worthwhile and satisfied after donating blood.					
7	A healthy person can donate blood four times a year.					
8	Blood donors are true heroes.					
9	Blood donation decreases the blood in our body.					
10	Regular blood donations lead to obesity (weight gain).					
11	Blood donation makes us weak.					
12	Donating blood more than once is bad for health.					
13	Blood donation is very painful.					

14	Donating blood decreases the immune system of the body					
15	A person cannot take part in sports and other physical exercises after blood donation.					

