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## Knowledge, attitude and practice of voluntary blood donation among undergraduate M.B.B.S students of B. J. Medical College, Ahmedabad

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### Abstract

**Introduction:** Blood transfusions form a crucial and irreplaceable part in the medical management of many diseases. The collection of blood from voluntary, non- remunerated blood donors from low risk populations is an important measure for ensuring the availability and safety of blood transfusion. The objectives of this study are to assess the knowledge, attitude and practice of voluntary blood donation among undergraduate students of B. J. Medical College, Ahmedabad, to identify and recruit potential voluntary blood donors amongst them and to determine the association between blood donation and gender and types of blood groups. **Methodology:** This was a cross sectional qualitative study conducted at the B. J. Medical College, Ahmedabad. A pre tested questionnaire was administered to 140 undergraduate students. The responses were collected and analyzed with the Microsoft excel and epi info 7. The association between blood donation practice and gender of respondents and types of blood groups was tested using Chi-square. P-values < 0.05 were considered significant. **Results:** Only 48 (34.3%) undergraduate students have donated with 17(12.4%) donating once a year, 28 (20.0%) between 1-3 times a year and 3 (2.1%) more than thrice a year. Most (27.5%) donated voluntarily, 6.4% for a friend or relative. The association between blood donation practice and gender of respondents was found significant. (p<0.05). **Conclusion:** Undergraduate students have good knowledge of voluntary donation and have a positive attitude towards donation but there is a disparity in their practice of blood donation.

**Keywords:** blood donation, under graduates, knowledge, voluntary

### 1. Introduction

Blood transfusions form a crucial and irreplaceable part in the medical management of many diseases. The collection of blood from voluntary, non- remunerated blood donors from low risk populations is an important measure for ensuring the availability and safety of blood transfusion. Human blood is an essential element of human life with no substitute. According to the WHO, India with its huge population of over 1 billion is lagging behind in blood collection. India has 2 433 blood banks that can collect 9 million units of blood annually, but collects only 7 million. Blood transfusion has been responsible for saving millions of lives each year around the world but its demand far outweighs the supply. Medicos by virtue of their training and medical practices are expected to be highly informed on the processes of donor blood procurement and the challenges of supply as well as the potential hazards of transfusion. They also constitute a potential pool of eligible but yet under explored donors.

### 2. Aims & Objectives:

The objectives of this study are to assess the knowledge, attitude and practice of voluntary blood donation among undergraduate students of B. J. Medical College, Ahmedabad, to identify and recruit potential voluntary blood donors amongst them and to determine the association between blood donation and gender and types of blood groups.

### 3. Materials and methodology:

**Study design:** cross sectional study

**Study area:** B. J. Medical College, Ahmedabad.

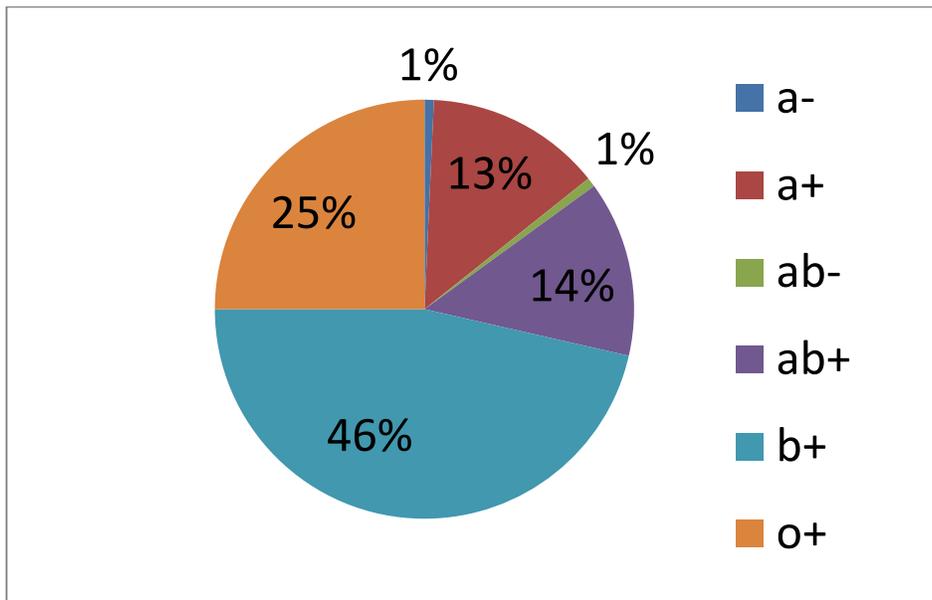
**Study population:** undergraduate M.B.B.S student

**Data collection:** A pre tested questionnaires was administered to 140 under graduate students.

**Data analysis:** The responses were collected and analysed with the Microsoft excel and epi info 7. The association between blood donation practice and gender of respondents

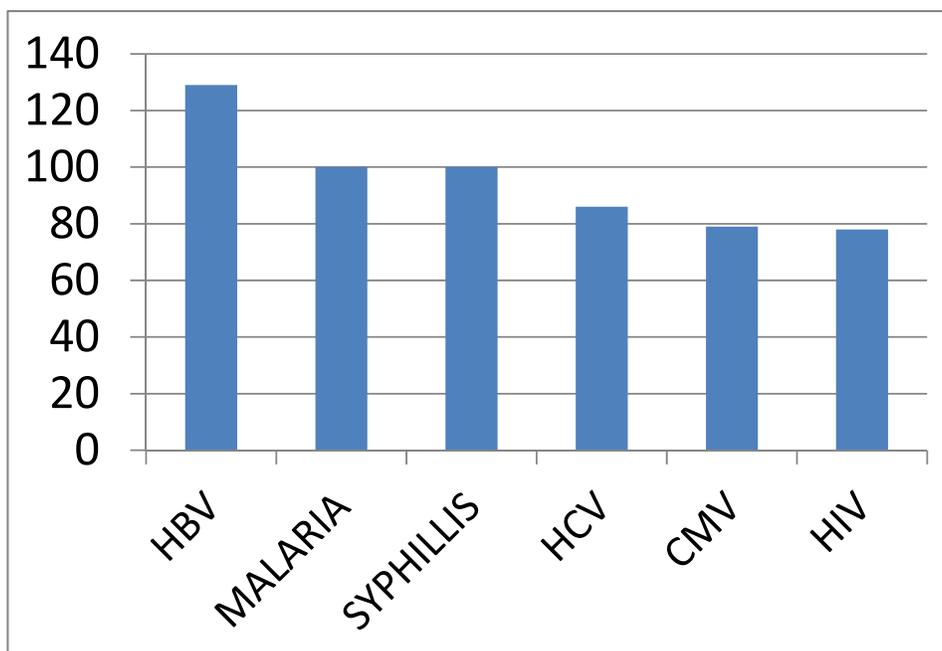
and types of blood groups was tested using Chi-square. P-values < 0.05 were considered significant.

**4. Results**



**Fig 1:** Types of blood group of respondents

Figure 1 shows that highest participants in the study were having B positive (46%) blood group followed by O positive (25%) blood group.



**Fig 2:** Knowledge about infections transmitted through blood transfusion

Figure 2 states that knowledge regarding the diseases that can be transmitted through blood transfusion was relatively good as more than 95 % participants were aware about

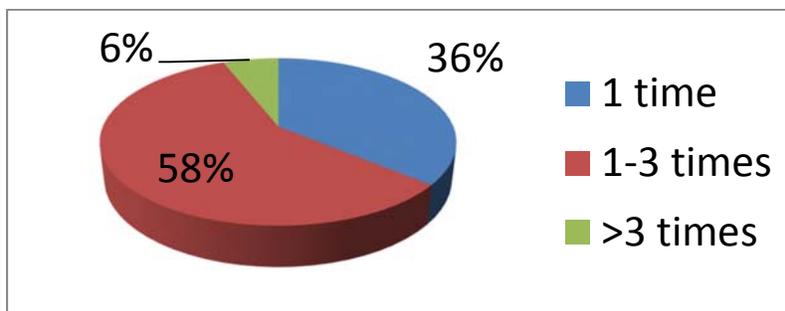
parenteral transmission of hepatitis b virus but roughly 60 % participants only know the HIV transmission through the blood transfusion.

**Table 1:** Knowledge about ideal prerequisites for blood donor and blood donation.

Sr. no	characteristics	Number of students
1.	Voluntary blood donation	115(82.1%)
2.	Minimum age (18 year)	118(84.3%)
3.	Minimum weight (45kg)	36(25.7%)
4.	Minimum interval (3 months)	64(45.7%)
5.	Minimum Hb (12.5 g%)	21(15%)
6.	Minimum Quantity (350 ml)	124(88.6%)
7.	Blood donation NOT harmful to the donor	137(97.8%)

Table no 1 shows that 82 % of the students think that voluntary blood donation is the best form of blood donation. Knowledge regarding ideal blood donation practice is relatively poor as minimum haemoglobin that is required to

be declared as fit for blood donation was seen among only 15 % of the students and minimum interval was known to only 45 % of the students.



**Fig 3:** Practice of blood donation

Figure 3 shows that Only 48 (34.3%) under graduate students have donated overall, with 17 (36.0%) donating once a year, 28 (58.0%) between 1-3 times a year and 3 (6.0%) more than thrice a year.

**Table 2:** Association between sex and blood donation

Gender	donors	Non donors	Total	P value
Male	36	38	74	X <sup>2</sup> = 14.372 P < 0.01
Female	12	54	66	
total	48	92	140	

As shown in table no 2 the blood donation practice and gender of respondents was strongly associated with each other and it was found statistically significant. (p<0.05)

**5. Conclusion**

Under graduate student have good knowledge of voluntary donation and have a positive attitude towards donation but there is a disparity in their practice of blood donation. There is a dire need of proper awareness campaigns in colleges & hence organizing blood donation camps regularly.

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