

# Blood Donation:-Knowledge, Attitude and Practice of Medical and Non-Medical Students in Superior University Lahore

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## ABSTRACT

**Aim:** To examine the knowledge, attitude and practice of blood donation in medical and non-medical students of Superior University Raiwind Road Lahore.

**Methodology:** After the approval of ethical institutional review committee a total of 160 medical and non-medical students were included in this study. Non probability convenient sampling technique was used. Data was collected on a structured questionnaire. The data was entered in version 21 of SPSS and analyze by use of statistical tools.

**Results:** Out of 160 students 83(51.9%) were medical and 77(48.1%) were non-medical students. A clear majority of 81(98%) medical students and only 32(42%) of non-medical student have knowledge about blood transfusion. Both 56(67%) of medical and 55(71%) of non-medical students have same attitude about donating blood in future.

**Conclusion:** Findings of this research showed that both medical and non-medical students have same knowledge about their blood group but medical students have preference about the knowledge of blood transfusion because of their medical background.

**Keywords:** Knowledge, Attitude, Blood donation, Medical and non-medical students

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## INTRODUCTION

“Every blood donor is hero” is the main theme of 2012 world blood donor day<sup>1</sup>. In medical emergencies the only way to save individual’s life is the blood transfusion. A sufficient blood supply is needed because donated blood is the key of life and death<sup>2</sup>.

According to world health organization 112.5 million blood donations collected globally, approximately half of them are collected from high income countries. Among 176 countries there are 1300 blood center collecting countries a total of 110 million donations<sup>3</sup>.

WHO reported if 3% of the population of a country donated blood then it meets its requirement. But unfortunately only 1% of the population donates blood in 73 countries and out of these 70% are developing countries. Considering Pakistan, 70% of blood donated by replacement donors, 20% form. voluntary donors and only 10% from paid donors<sup>4</sup>

A study showed that 3% of the world population carries beta thalassemia and it is estimated that every year 60000 thalassemic babies born all over the world. In Pakistan 5000 children are diagnosed each year thalassemic<sup>5</sup>.

In Pakistan 70% of donated blood is being used in children suffering from thalassemia. Generally, blood donated from voluntary donors is considered as lesser risk of transfusion related infections like hepatitis B, C and HIV<sup>6</sup>.

According to a study over 1.5 million pints of blood is collected in Pakistan each year<sup>7</sup>. Pakistan has 170 public and 450 private blood banks. All these blood banks have lack of information about record keeping and recruitment of donors for blood<sup>8</sup>.

Globally the demand of blood is increasing in many countries but there is a regular decrease in number of blood donations. The reason behind decrease in blood donations are difficult to recruit new blood donors, decrease of eligible donors, due to the strict policies about blood donation and last but not the least is lack of altruism factor in the society<sup>9</sup>.

According to World Health Organization a consistent quality and safety of blood and blood products are only possible with an appropriate and coordinated national blood policy. “Ensuring the availability and safety of blood and blood products is an essential public health responsibility. Took measures to ensure blood safety play an important role in preventing the transmission of hepatitis, HIV

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virus and other blood borne pathogens in health care setting<sup>10</sup>.

In 2008 government of Pakistan has initiated new blood transfusion service structure across the country to promote and improve blood safety with German government. For this purpose in 2010 reforms were established of the safe blood transfusion programme<sup>11</sup>.

In order to meet the safe blood requirement students are huge source of potential blood donors. There are lot of studies conducted on the knowledge, attitude and practice of blood donations among students on blood donations. If college students are motivated and are willing to donate voluntary blood then they are major source of blood donation in Pakistan<sup>12</sup>.

The objective of this study was to determine the knowledge, attitude and practice of blood donation among undergraduate medical and non-medical students of Lahore

### METHODOLOGY

A descriptive and cross sectional study was designed for collection of data at Superior university Lahore. Time duration was 1 months from 15 July to 15<sup>th</sup> August 2017. Total sample size was 160. Non probability convenient technique was used during collection of data. The study was approved by the ethical review committee of Superior University Lahore. All participants were explained for the purpose and process of the study. It was ensured that all given information was keep confidential. A structured pretested questionnaire was used for data collection. SPSS v21.0 software was used for analysis of data.

### RESULTS

Out of the total 160 participants of the study 83(51.9%) were the students of medical and 77(48.1%) were the students of non-medical. 100(62.5%) respondents were male students whereas 60 (37.5%) were female. The age of the respondent was range between 18 to 25 years with a mean of 20.61. 53(33.1%) were from rural background and 107(66.9%) were from urban background.

Table 3 showed that mostly medical students (53%) have their knowledge from their education

while non-medical students 43% have knowledge from their families.

Table 1: Frequency distribution of department, gender, age, background, father and mother education.

Variables	Frequency	%age
<b>Department</b>		
Medical	83	51.9
Non-medical	77	48.1
<b>Gender</b>		
Male	100	62.5
Female	60	37.5
<b>Age</b>		
18-20 years	69	43.1
21-25 years	91	56.9
<b>Background</b>		
Rural	53	33.1
Urban	107	66.9
<b>Father education</b>		
Less educated	84	52.5
Higher educated	76	47.5
<b>Mother education</b>		
Less educated	104	65
Higher educated	56	35

Table 2: Frequency distribution regarding knowledge, attitude and practice of medical and non-medical students about blood donation.

Questions	Medical		Non-medical	
	Yes	No (%)	Yes	No
Do you know your blood group?	73 (68%)	10 (12%)	52 (68%)	25 (32%)
Do you know what blood transfusion is?	81 (98%)	02 (02%)	32 (42%)	45 (58%)
Have you donated blood in your life?	21 (25%)	62 (75%)	35 (45%)	42 (55%)
Do you feel hesitation on blood donation?	36 (43%)	47 (57%)	35 (45%)	42 (55%)
Are you aware screening test performed before blood donation?	69 (83%)	14 (17%)	32 (42%)	45 (58%)
Do you know infectious diseases can be transferred during blood donation?	75 (90%)	8 (10%)	37 (48%)	40 (52%)
Is blood donation harmful for donor?	15 (18%)	68 (82%)	19 (25%)	58 (75%)
Are you willing to donate blood in future?	56 (67%)	27 (33%)	55 (71%)	22 (29%)

Table 3: Frequency distribution of source of knowledge about blood donation of medical and non-medical students.

No	Question		Family (%)	Media	Education	Any other
9	What is the source of knowledge about blood donation?	Medical	27(32.52%)	3(3.48%)	44(53%)	9(11%)
		Non-medical	33(43%)	12(16%)	23(30%)	9 (11)

**DISCUSSION**

The results of the different questions to assess the knowledge, attitude and practice of blood donation among medical and non-medical students are presented in table 2. A clear majority 73(68%) of medical and 52(68%) of non-medical students have knowledge about their blood group. Statistically our results are significant because p value for this comparison of knowledge is .002. Similarly, when question was asked about blood transfusion a large number of 81 (98%) of medical students and only 32(42%) have knowledge. Statistically our results are significant because p value for this comparison of knowledge is .0001.

When a question was asked about donation of blood a clear difference was seen between medical and non-medical students. Only 21(25%) of medical and 35(45%) of non-medical students were donated blood in their lives. Statistically our results are significant because p value for this comparison of knowledge is .006. A same type of study was conducted in medical college of Rajkpt which showed that only 24% of the respondents donate blood. The only reason for not donating blood is lack of opportunity in their lives<sup>13</sup>.

Majority of 69(83%) of medical students and only 32(42%) of non-medical students have knowledge about screening test performed before blood donation. Statistically our results are significant because p value for this comparison of knowledge is .0001. A clear majority of 75(90%) of medical students and only 37(48%) of non-medical students have knowledge about transfer of infectious during blood donation. p value for this comparison of knowledge is .0001.

The attitude of 56 (67%) of medical and 55(71%) of non-medical students was same for donation of blood in near future. A study was conducted in Karachi which showed that 50% of the respondents are willing to donate blood in their future<sup>13</sup>.

**CONCLUSION**

The findings of this research showed that medical students have more knowledge about their blood group and blood transfusion. There is need to create the awareness and motivation university administration, hematology department of teaching hospital and department of community medicine

should collaborate in promoting voluntary blood donation among medical and non-medical students of university.

Because the main reason for not donating blood is fear of complications, fear of hospitals, and lack of awareness, false beliefs and lack of altruism factor in the society.

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