Original Article

Attitude and Trends of Undergraduate Medical Students towards Blood Donations in Services Institute of Medical Sciences, Lahore

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Objective: To evaluate attitude, trends and willingness towards blood donation and its associated factors among undergraduate medical students.

Methods: This was a cross-sectional study conducted in Services Institute of Medical Sciences Lahore from August 2018 to December 2018. A validated questionnaire regarding blood donation was used for data collection and was administered to all selected medical students. Data were analyzed using SPSS version 20. Data were represented using Simple frequencies and percentages, and Pearson Chi-square test was applied to calculate association between different variables with p value considered as significant when <0.05.

Results: Total of 400 students were interviewed. The mean age of the students was 23 years. 60% of students were female while 40% of students were male. 30% of students were from preclinical classes and 70% of patients were from clinical classes. 70% of students had positive attitude toward blood donation, 20% of had neutral and only 10% had negative attitude toward blood donation. 45% of students had previous history of blood donations while 55% students had not. 77.7% of students showed willingness for blood donations while 22.5% of students revealed disinclination for blood donation. Male students and students of clinical classes had more frequently donated blood and more willing to donate blood with statistically significant difference.

Conclusions: It was concluded that most of medical students had positive attitude toward blood donation and majority of students were willing to donate blood. However, the students who donated blood was low, especially in female students.

Keywords: blood donations, attitude, trends, willingness.

Introduction

Blood transfusion is crucial, lifesaving component of health care system of the society. Human blood is capable of saving millions of lives if its availability is ensured. According to the World Health Organization (WHO), at least 1% of the country's population should donate blood voluntarily to meet the baseline need for blood and blood products.[1] In Pakistan more than 1.5 million pints of blood are collected each year. About 65% of collected blood is from replacement donors, 25% from volunteer donors and about 10% from professional donors.[2] Nowadays, the use of whole blood is a well-accepted and commonly employed measure without which many modern surgical procedures could not be performed.[3] There are three sorts of blood donors: voluntary non-remunerated; family or replacement; and remunerated. The requirement of safe blood can only be assured with the aid of regular, voluntary, non-remunerated blood donors. It has been established that the voluntary non-remunerated blood donation is the safest form of blood donations.[4] These donors are considered as safest as it has been found that the prevalence of transfusion transmitted infections is lowermost among these donors and sero-positivity of transfusion transmitted diseases is higher in replacement blood donors than voluntary donors.[5] There are also medical remunerations of blood donation for blood donors also as the incidence of acute myocardial infarction is lesser in regular voluntary donors. Voluntary blood donation also enhances the insulin sensitivity and thus helps in maintaining the equilibrium of glucose in the body in blood donors. It has been found that enlistment of safe donors, specifically in developing countries, is more challenging task.[6] Blood donation is driven by the various factors like altruism, social norms, and behavior and replacement needs.[7] There should be better awareness and increased level of positive attitude about voluntary blood donation. Moreover, these donors should self-exclude themselves in situations when they are not fit to donate blood as being a regular donor. They should be aware of donor deferral conditions.

The healthy, energetic and accessible student populations are potential blood donors to meet safe blood supplies. There is a scarcity of studies on awareness, attitude and practices among medical

students on voluntary blood donation in Pakistan and especially in Punjab, Lahore. College students, particularly from Government Medical Colleges, can be a very good source of quality blood if they are motivated and are willing to be voluntary blood donors. Therefore, the objective of this study was to determine the attitude and trends towards blood donation among undergraduate medical students in Lahore, Pakistan.

Methods

This was cross-sectional descriptive type of study conducted at Services Institute of Medical Sciences, Lahore from August 2018 to December 2018. Medical students participated in the study. Simple random sampling technique was used and the sample size was 400. Approval was taken from Hospital Ethical Committee. Informed consent was obtained from all study participants. A validated questionnaire regarding blood donation was used for data collection and was administered to all selected medical students. The questionnaire had three sections; socio-demographic profile, attitude of students towards blood donation and practices of students regarding blood donations. Using 5-pointLikert scale method, attitude about blood donation was quantified, after taking reply of seven questions. Participants gave strongly agree (5), agree (4), not sure (3), disagree (2), or strongly disagree (1) responses for positive questions and strongly agree (1), agree (2), not sure (3), disagree (4), or strongly disagree (5) responses for negative questions. The range was from 7 to 35 points for attitude part of questionnaire. Attitude was said to be positive if mean percentage score was more than 80%, neutral if between 60% to 80% and negative if less than 60%. Practices of blood donation among students was evaluated by asking questions stating their willingness to donate blood and previous history of blood donation. Data was analyzed using SPSS version 20. Data was represented using Simple frequencies and percentages, and Pearson Chi-square test was applied to calculate association between different variables with p value considered as statistically significant if<0.05.

Results

The total number of medical students interviewed during the study were 400. All the students responded to the questionnaire. The mean age of the students was 23 years and ranging from 18 years to 26 years. In the study, 240(60%) students were female while 160(40%) students were male. Out of total 120(30%) students were from preclinical classes and 280(70%) patients were from clinical classes. **(Table-1)** In this study, 280(70%) students showed positive attitude toward blood donation, 80(20%) students had neutral and only 40(10%) students revealed negative attitude toward blood donation. Male students (130/160) had more positive attitude to blood donation as compared to females (150/240) with insignificant p-value and students of clinical classes (200/280) had more positive attitude to blood donation as oppose to students of preclinical classes (80/120) with statistically insignificant p-value. **(Table-2)** In the present study, 180(45%) students had previous history of blood donations while 220(55%) students had no history of previous blood donations. Furthermore, male students (100/160) had donated more commonly than female students (40/240) with significant p-value and students of clinical classes (170/280) had more frequently donated blood as compared to students of preclinical classes(20/120) with statistically significant p-value. **(Table-3)** In the current study, 310(77.7%) students showed willingness for blood donations while 90(22.5%) students revealed disinclination for blood donation. In addition, male (150/160) students were keener to donate blood as compared to female (160/240) students with p-value of 0.00 and students from

Table-1: Demoraphic characteristics of students.

Characteristics		No. of Students n	Percentage
Gender	Male	160	40
	Female	240	60
Class Group	Pre-clinical classes	120	30
	Clinical classes	280	70

Table-2: Attitude of patients towards blood donation.

Charateristics		Attitude of students (%)				
		Positive	Natural	Negative	Total	p-value
Gender	Male	130	20	10	160	
	Female	150	60	30	240	0.150
Total		280	80	40	400	
Class group	Pre-clinical	80	20	20	120	
	Clinical	200	60	20	280	0.007
Total		280	80	40	400	

Table-3: Previous history of blood donation.

Characteristics of students		Previous blood donation (%) Yes	NoI	Total	p-value
Gender	Male	100	60	160	
	Female	40	200	240	0.000
Total		140	260	400	
Class group	Pre-clinical	20	100	120	
	Clinical	170	110	280	0.000
Total		180	220	400	

Table-3: Willingness history of blood donation.

Characteristics of students		Willingness blood donation (%) Yes	NoI	Total	p-value
Gender	Male	150	10	160	
	Female	160	80	240	0.000
Total		310	90	400	
Class group	Pre-clinical	70	50	120	
	Clinical	240	20	280	0.000
Total		330	70	400	

clinical classes (240/280) were more eager to donate blood with statistically significant p-value.**(Table-4)**

Discussion

This study was conducted to attain data and inputs from undergraduate students of government medical college that will be useful in applying relevant donor recruitment policies because this population can contribute to health promoting activities in the society. The hospital blood bank has two means to encounter this challenge, first to device policies for appropriate use of blood[8] and second to increase healthy blood donor enrolment.[9] Blood donation decision making has been scrutinized worldwide for decades to cognize the process better to upsurge donation efficacy.[10]

With ever-growing need of safe blood for transfusion in Pakistan, there is a requisite to boost eligible donors to upturn voluntarily for blood donation on regular basis, so that our dependence on replacement and paid donors may fade away as replacement and paid donors are assosiated with high risk in contrast to voluntary donors.[11]

In the present study, almost two third of students showed positive attitude towards blood donation. Similar results were also demonstrated in other studies.[12-15] However, Wiwanitkit [16] in his research demonstrated that there were a high number of respondents with a negative attitude towards blood donation.

Most of the medical students were willing to donate blood however there were low percentage of students who had actually donated blood in past. This fact can be attributed to lack of an opportunity to donate blood as well as lack of awareness among medical students. This finding has been verified by the findings of past studies.[17] It can be inferred from above discussion that sufficient efforts are needed to involve students and to create opportunities for them to donate blood. There is need for creation of chances to donate blood by holding frequent blood donation camps and to be well informed about blood donation, as the motivating factors for the recruitment of more donors.

This study also discovered that the unwillingness to donate blood was more among the female students and the major reasons can be attributed to fear and perceived inconvenience that were associated with blood donation. This finding was also supported by the results of a past study.[18]

Conclusion

This research concluded that most of medical students had positive attitude toward blood donation and majority of students were willing to donate blood. However, the students who had donated blood were squat, especially female students. This imitates a need for ongoing, educational, and motivational activities for encouraging voluntary blood donation by the students.

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