

Blood Safety and Donation Knowledge, Attitude and Practice (KAP) among 1st Year Medical Students at LMDC, Lahore.

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ABSTRACT

Aim: To assess the knowledge, attitude and practice about blood safety and donation.

Study design: Cross sectional analytical study.

Place of Study: Lahore Medical and Dental College.

Methodology: A closed ended questionnaire consisting of questions to evaluate the knowledge regarding blood safety and donation, attitude and perception of the medical students was duly filled by 142 students of First year MBBS. The data were entered and analyzed using Statistical Package for Social Sciences (SPSS) software version 20.

Results: Out of 142 students 77.5% intended to donate blood in future, but only 66.9% had ever donated blood and out of which, 18.3% of donors were first timers. Knowledge on blood safety and donation was significantly associated with blood donation status.

Conclusion: Not much of the medical students under study had adequate knowledge on blood safety and donation and the main reason they gave for low donation was that people have fear in donating blood.

Keywords: KAP, blood safety and donation, cross-sectional, voluntary non-remunerated donors

INTRODUCTION

Donating blood is an act that can save the lives of thousands of people worldwide because blood is an essential element of human life and there are no substitutes for it. Blood transfusion is fundamental for optimum management of emergency conditions such as severe trauma, shock and resuscitation and is therefore a common practice in hospital settings. Voluntary blood donation is the only means by which blood can be stored and made available for use¹.

In spite of extensive efforts and a number of blood donation programs being organized worldwide, the availability of blood still remains short to meet the increased demand for it. World Health Organization advocates an annual donation of blood by 3% to 5% of the healthy population in order to maintain an ideal stock of blood and blood products to keep up with its consumption². The collection of blood should only be from voluntary donors (low risk population), that is one of the four components of WHO's internal strategy to promote global safety and minimize risk associated with transfusion. The first step towards blood safety is to encourage blood donations from voluntary non-remunerated donors and obtained from low risk and regular donors, who donate blood two or three times a year and continues to donate at least once a year. Youths including medical students who are healthy, enthusiastic and approachable as a

group, if recruited young may become future donors and motivators³.

Knowledge, attitude and practice (KAP) surveys, have been used in many countries to understand factors that influence blood donation and is the basis for communication and donor mobilization strategies. The objective of this study is to analyze the factors of knowledge of prospective blood donors that may influence their perception and awareness about blood donation. Regular CME's and seminars should be conducted to increase awareness about blood safety and donation as well as to encourage healthy people and particularly students to donate blood regularly to make sure that blood is available for all patients in need^{4,5}.

Rationale of the Present Study: Although same types of studies have been conducted but very few studies have been conducted in Pakistan for the knowledge, attitude and perceptions about blood safety and donation among medical students. As this is entry level of medical students, We want to assess the basic knowledge of our students about blood safety and donation, find their attitude and perceptions so that interventions can be done at basic level to improve their knowledge, to amend their attitude and to improve their perceptions for the betterment of their own self as well as for the betterment in the society.

Objective:

1. To encourage blood donations from voluntary non-remunerated donors and obtained from low risk and regular donors, who donating blood two

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to three times a year and continues to donate at least once a year.

- Youths including medical students who are healthy, enthusiastic and approachable as a group, if recruited young may become future donors and motivators.

METHODOLOGY

This cross sectional analytical study was conducted from January to May 2015 at Lahore Medical and Dental College, Lahore after approval from the Ethical Committee at Lahore Medical & Dental College, Lahore. Independent variables checked in the study were age, year of study and dependent variables were those who had ever donated blood and who were willing to donate blood in future. Study population was first year MBBS classes. Sampling technique used was randomly selected sample and sample size was 142 students.

A closed ended questionnaire consisting of questions to evaluate the knowledge regarding blood safety and donation, attitude and perception of the medical students was duly filled by 142 students of First year MBBS. Training was given for data collectors and the overall data collection activities were supervised by principal investigator. The participants were anonymously responded to the items on the questionnaire. Data analyzed using SPSS (Statistical Package for Social Science) version 20.

RESULTS

Total of 150 students approached for the interview, 08 students were absent and did not participated. More number of females participated in the study. Respondents' knowledge about blood safety and donation are shown in Table 1. On the basis of the scoring scale, the proportion of students having adequate knowledge was 88(33.1%). The knowledge about their own blood group was found to be 128(90.1%) and only 14(9.9%) were not aware about their own blood groups.

As shown in Table 2, almost one third of the students thought that one could contract disease while donating blood. As reckoned by the students, fear (52.1%) and ignorance (16.2%) were the main reasons why people are reluctant to donate blood. Majority of the respondents (77.5%) were willing to donate blood in the future. A large number of respondents (67.6%) had never donated blood out of which 20.4% had donated within the last one year. Main reason for not donating blood was that they claimed of having fear to donate blood (Table 2).

Table 1: Knowledge of study subjects on blood safety & donation

Questions on	n	%age
Knowing own blood group		
Known	128	90.1
Unknown	14	9.9
Types of Blood Group		
Known	74	52.1
Unknown	64	47.9
Age limit of donors		
Correct response	53	37.3
Incorrect response	89	62.6
Minimal Interval between two donations by a person		
Correct response	26	18.3
Incorrect response	116	81.6
Amount of blood a person can donate in a single time		
Correct response	86	60.6
Incorrect response	56	39.4
Donated blood can be given to more than one person		
Correct response	88	62.0
Incorrect response	54	38.0
Investigations performed on donated blood		
Yes	100	70.4
No	7	4.9
Don't know or may be	35	24.6
Diseased transmitted through transfusion of unscreened blood (HIV, HBV, HCV, Syphilis, Malaria)		
Known One	107	75.4
Known more than One	26	18.3
No Idea	9	6.3
Types of Blood Donors		
Voluntary	96	67.6
Replacement	21	14.8
Paid	20	14.1
Autologous	5	3.5

Table 2: Attitude of study subjects on blood safety & donation

Attitudes	N	%age
Do you think one can contract diseases while donating blood		
Yes	88	62.0
No	46	32.4
No idea	8	5.6
What do you think why people are reluctant to donate blood		
Fear	74	52.1
Ignorance	23	16.2
Lack of motivation	39	27.5
Are you willing to donate blood		
Yes	110	77.5
No	32	22.5

Table 3: Practice of study subjects on blood safety & donation

Practice	N	%age
How many times you have donated blood?		
Once	26	18.3
More than once	20	14.1
Never given	96	67.6
When was the last time you donated blood?		
< 1 Year	29	20.4
> 1 Year	18	12.7
Never given	95	66.9
How did you feel after donating blood?		
Positive feeling	44	31.0
Indifferent	3	2.1
Never given	95	66.9

DISCUSSION

Maintaining an adequate and safe blood supply is an issue of concern to health planners especially with the increase in demand. Therefore, understanding the beliefs, attitude and level of knowledge associated with blood safety and donation is crucial.

From all, 128(90.1%) of the students knew about their own blood groups and 74(52.1%) knew about Rh typing. Only 53 of the students (37.3%) in the present study knew correct age limit for donating blood. Shahshahani et al 7 reported that 45% in the general population had correct knowledge regarding minimum age requirement for blood donation. In other studies^{3,6}. However, it was correctly known by only 3-6% of the respondents. Correct knowledge regarding the minimum gap between two donations was recorded as 18.3% of the students as also observed in other studies^{1,2,3,4}. However, another study⁵ reported that 75% of an urban population knew it correctly. Only 18.3% of the students knew the diseases (HIV, HBV, HCV, Syphilis, and Malaria) transmitted through transfusion of unscreened blood. A similar finding was reported by other workers^{3,5}. Around 62.0% of the participants in the current study thought that donating blood can contract diseases. In certain studies, most of the people believed that blood donation can lead to human immunodeficiency virus infection and hepatitis C and of health^{8,9}.

Approximately seventy seven percent of the respondents in this study intended to donate blood in future and they thought that fear (52.1%), ignorance (16.2%) and lack of motivations (27.5%) were the main reasons for not donating blood by people. Similar reasons were cited by other researchers in their studies^{5,7,10}. Therefore, different fears, mistrust in hospital and lack of information and motivation may serve as important issues to be addressed when developing donors recruitment programs or campaigns to clear misconceptions about blood donation. In our study, the prevalence of having ever donated blood was found to be only 18.3% which is consistent with other study findings^{5,11}. A higher prevalence was reported by different researchers^{1,7,9}. A direct relationship was observed between adequate knowledge and voluntary blood donation. In other studies too, there was a strong relationship between knowledge level and performance^{5,7}. In this study, having adequate knowledge was not associated with gender and willingness to donate blood in the future. However, in many studies, donation of blood was higher among males than females^{1,7,8}. Most of the respondents acquire their information about blood

safety and donation from television and radio mainly as other workers also reported similar results^{7,8}.

CONCLUSION

Not much of the medical students under study had adequate knowledge on blood safety and donation. Majority of them intended to donate blood in future however, a very few had ever actually donated blood.

RECOMMENDATIONS

Information, education and communication activities should be increased using mass media like television and radio. Regular CMEs and seminars should be conducted to increase awareness about blood safety and donation as well as to encourage healthy people and particularly students to donate blood regularly to make sure that blood is available for all patients in need.

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