

Awareness and Practice of Blood Donation Among Medical Students of AIMC/FJMU

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ABSTRACT

Background: The level of awareness and practice concerning blood donation among the medical students is important to be understood as they are projected to convey the information to the general population about the need of voluntary blood donation.

Aims and Objective: The evaluation of knowledge level and practice about blood donation amongst medical students of Allama Iqbal Medical College and Fatima Jinnah Medical University, Lahore.

Study Design: Cross sectional study.

Study Setting: Study was performed among the students of Allama Iqbal Medical College, affiliated with Jinnah Hospital, Lahore. and Fatima Jinnah Medical University, affiliated with Sir Ganga Ram Hospital Lahore.

Duration of Study: 3 September to 8 December, 2016.

Sample Size: 550 Medical Students.

Sampling Technique: Sampling Technique used was non probability convenient technique.

Results: There were 550 respondents, 162 males and 388 females. Among 162 males 94 (58%) were donor and 68 (41.9%) didn't donate blood. Among 388 females 44 (11.3%) were donor and 344 (88.7%) didn't donate blood. Causes: for not donating the blood were, weakness (23.8%), fear of needle prick (5.6%), fear of blood borne diseases (5.3%), fright of becoming fat (3.3%) and no proper reason (37.5%). There was no note worthy dissimilarity in awareness amongst males and females, but blood donation practices were found to be markedly higher in males.

Conclusion: Blood donation campaigns and seminars are not enough to motivate them to donate blood, Collaborative awareness sessions may be arranged to strength then practice of blood donation.

Key words: Blood donation, Awareness, Practice, Medical students

INTRODUCTION

Blood is a major component of human body. Blood donation is very beneficial for saving millions of lives. Blood is required during accidents, surgical operations, thalassemia, hemophilia and in cancer patients [1]. About 92 million blood donations are given annually throughout the world. However, the need of timely provision of blood in adequate amount has not met the global demand yet [2]. According to World Health Organization (WHO) estimated blood required in South Asia is 16 million per year but 9.4 million blood is collected per year. We are still short of 6 million [1]. In Pakistan about 65% blood is donated by replacement donors, 25% by volunteer donors and about 10% by professional donors which collectively make more than 1.5 million pints of blood each year [3]. There are more regular

donors among medical students than non-medical students. Major reason of donation is humanity and feeling of sense of duty and social problems from the friends and family. Still there is lesser percentage of medical students who donate blood, due to lack of motivation. Common fears and beliefs of blood donation are, weakness, fear of needle prick, unhygienic procedures [4], inability of health care providers or relatives to approach many people. An individual who donated blood before has more intention to donate blood as compared to non-donors [5]. Medical students have fair knowledge of blood donation but there are some areas which lack awareness. Medical students should be motivated in the right way to promote blood donation because they are the main source of voluntary donors and they are going to be the future health care providers [2]. Supply

of blood is less than its demand because there is lack of blood donors. Physicians have knowledge and good attitude towards blood donation so they should encourage the medical students and other people. There is need to arrange seminars to motivate, recruit and retain potential donors [6]. The harmless blood donors are volunteer blood donors from low-risk populations [7]. In developed countries, healthy volunteer repeat donors form the foundation of safe blood supply [8]. Almost all students regard blood donation as a noble act of humanity, but only about half the students expressed their will to become regular donors in future [9]. Though blood transfusion can be lifesaving, it is not without health hazards. Transfusion-transmitted infections (TTI) problems are directly proportional to the incidence of infections among blood donors [10]. Blood collection from non-remunerated blood donors is a significant measure for guaranteeing the well-being, quality, convenience and accessibility of blood [11]. Presently, a majority of blood donations are from friends and relatives of the patient. This practice is not recommended as sometimes family or replacement donors donate blood unwillingly under pressure or regard and even hide their diseases [12]. There should be a regularly planned campaign organized at the community level to utilize potential blood donors. [13]. Educational programs on blood donation and blood transfusion should be expanded through various media including the Internet to keep the topic of blood donation alive in the minds of the general public [14]. Most of the donors in the study group have opinion that the rousing factors for the recruitment of more donors to establish the chances of blood donation. [15]

Objective: The evaluation of knowledge level and practice about blood donation amongst medical students of Allama Iqbal Medical College/Fatima Jinnah Medical University, Lahore.

Operational Definitions

Practice: Denotes when individuals experienced blood donation activity at least once in their life time.

Awareness: Refers to human's perception and cognitive reaction to a condition or event.

Volunteer Donor: A healthy person who is self-directed for life saving purpose by regularly donating blood.

RESEARCH METHODOLOGY

MATERIAL & METHODS

Sampling Technique: Sampling Technique used was non probability convenient technique.

Inclusion Criteria: Male and female students of Allama Iqbal Medical College who were willing were included in this study.

Exclusion Criteria: Students who were severely ill or students who did not give the consent were excluded from the study.

Variables:

Independent variables:

- Age
- Education
- Family involvement
- Previous donation

Dependent variables:

- Awareness
- Practice

Data Collection Procedure:

Informed consent was obtained from 550 medical students, fulfilling the inclusion criteria. A Performa of questionnaire was completed for each student with the help of one investigator.

Data Analysis Procedure:

Data was analyzed using SPSS version 17.0 with the help of descriptive charts and graphs, Mean and standard deviation were calculated for numerical values. Frequency tabulation and percentages were calculated for nominal variables.

RESULTS

There were 550 respondents 162 males and 388 females. Table no.1 shows that among 162 males 94(58%) were donor and 68(41.9%) didn't donate blood. Among 388 females 44(11.3%) were donor and 344(88.7%) didn't donate blood. (Table No. 1). The Reasons for not donating the blood were, I am too weak (23.8%), fear of needle prick (5.6), fear of blood borne diseases (5.3%), fear of becoming fat (3.3%) and no proper reason (37.5%). (Table no. 2). 1 Only screening for HIV is necessary before donation according to 0.4% (2) students and only screening for Hepatitis C is necessary before donation according to 3.1% (17) students. Screening for Hepatitis B is necessary according to 1.3% (7) students. And according to 95.3% (524) students screening for all diseases (

Hep B, Hep C, HIV and syphilis) is necessary before blood donation.(Table no.3).

Voluntary donation was proved to be optimal source of blood donation by 77.8%, replacement donor by 6%, remunerated donor by 0.5% and self donation by 15.6 %.(Table no.4).Blood camps were accepted as best source of motivation by

35.5% students, media by 32.2%, seminars by 24.9% and societies by 7.5%. (Table No.5).Duration of 4 months between two consecutive durations was responded by 37.45% students, 3 months by 45.82%, 6 months by 14.18% and 5 months by 2.55%. (Pie chart)

Table 1: Practice of blood donation among males and females

Gender			Frequency	Percent	Valid Percent	Cumulative Percent
Male		Yes	94	58.0	58.0	58.0
		No	68	42.0	42.0	100.0
		Total	162	100.0	100.0	
female		Yes	44	11.3	11.3	11.3
		No	344	88.7	88.7	100.0
		Total	388	100.0	100.0	

Table 2: Reason of not donating blood

	REASON	Frequency	Percent	Valid Percent	Cumulative Percent
	N/A	135	24.5	24.5	24.5
	i am too waek	131	23.8	23.8	48.4
	fear of needle prick	31	5.6	5.6	54.0
	fear of blood borne disease	29	5.3	5.3	59.3
	fear of becoming fat	18	3.3	3.3	62.5
	no proper reason	206	37.5	37.5	100.0
	Total	550	100.0	100.0	

Table 3: Diseases for which screening is necessary before transfusion

Disease	Frequency	Percent	Valid Percent	Cumulative Percent
hepatitis B	7	1.3	1.3	1.3
hepatitis C	17	3.1	3.1	4.4
HIV	2	.4	.4	4.7
all of the above	524	95.3	95.3	100.0
Total	550	100.0	100.0	

Table 4: Awareness regarding best source of blood donor

Source	Frequency	Percent	Valid Percent	Cumulative Percent
voluntary donor	428	77.8	77.8	77.8
replacement donor	33	6.0	6.0	83.8
remunerated donor	3	.5	.5	84.4
self donor	86	15.6	15.6	100.0
Total	550	100.0	100.0	

Table 5: Best source of motivation for blood donation

Motivation	source	Frequency	Percent	Valid Percent	Cumulative Percent
	Seminars	137	24.9	24.9	24.9
	Media	177	32.2	32.2	57.1
	Societies	41	7.5	7.5	64.5
	blood camps	195	35.5	35.5	100.0
	Total	550	100.0	100.0	

Pie chart: Awareness about duration between two consecutive donations.



DISCUSSIONS

In this study 550 students were included 162 male and 388 females. 94(58%) males and 44(11.3%) females donated blood. 68(41.9%) among males didn't donate blood and 344(89 %) among females didn't donate blood.. In an international journal in which study was carried out on 135 students among which 76 were males and 59 were females. Among 76 males 60 (78.9%) males donated blood and among 59 females 13(22%) females donated blood.^[2] This difference might be due to the fact that students of our study lack motivation regarding blood donation. In this study voluntary donation was accepted as a best source of blood donation by 74.5% students. In another study conducted on physicians in tertiary hospital voluntary donation was believed as a best source of donation by 80.7% physicians ^[6]. This difference might be due to the fact that physicians have good knowledge regarding blood donation. In our study 95.3% students were aware of diseases for which screening is necessary before blood donation. In another study by Raja Danasekaran published in 2014, 88.8% students were aware of diseases for which screening is necessary before donation.^[2] This difference might be due to fair knowledge of students in the present study. In our study blood

camps were accepted as best source of motivation by 35.5% students, media by 32.2%, seminars by 24.9% and societies by 7.5%. This is in congruence with study conducted in various institutes of Karachi in which media and seminar were also considered as a best source of motivation for blood donation.^[3] In this study main cause for not donating the blood was weakness but in another study conducted in Karachi in 2014 the main reasons for not donating the blood were fear and inconvenience associated with blood donation.^[3] This difference might be due to large number of females in study conducted in Karachi. In our study the minimum duration between two consecutive donations (3 months) was responded by 45.82% but in the study conducted by Nwogoh Benedict in 2012 minimum duration between two consecutive donation (3 months) was responded by 35.7%^[6]. Actually this difference is due to well awareness of students of our study.

CONCLUSION

The level of information about blood donation among the medical students of AIMC/FJMU was satisfactory but still there is space to educate them regarding the importance of blood donation.

According to our study 25.1% students have donated blood but the ratio of females who have donated blood was almost one fifth of male students. The main reason for not donating blood was weakness. Though medical students were supposed to show positive response towards blood donations but that was not up to the mark as some of them were afraid of it. This potential donor population can be motivated in the right way to promote the blood donation practices through effective, informative and motivating classes and discussions.

RECOMMENDATIONS

Students should be motivated to donate blood through electronic media, seminars and blood camps.

- All students should be trained in information communication. In this way they will be able to provide appropriate information to the donors.
- Females need more motivation to promote blood donation practices. The level of awareness of females should be increased and barriers to donation by females should be eliminated.
- Misconceptions regarding blood donations should be discouraged through health education.
- There should be lectures on blood donation practice and awareness in schools, colleges and universities.

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