

Knowledge and Attitude towards Blood Donation in Educated and Illiterate Blood Donors Attending a Tertiary Care Hospital in Lahore

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ABSTRACT

Aim: To assess the knowledge and attitude of educated and illiterate blood donors visited a tertiary care paediatric institute for blood donation.

Methods: The present cross-sectional study was held from June 2016 to December 2016 on 246 blood donors through a structured survey questionnaire. The collected data checked for its accuracy, consistency and completeness before analysis.

Results: Total population of this study comprises of 246 blood donors, 188(76.4%) of which educated and 58(23.6%) were illiterate. There were 239(97.2%) males and 7(2.8%) females in this study. The overall knowledge on blood donation was highest among educated blood donors (91.7%) and lowest among illiterate blood donors (73.2%). Similar results obtained for positive attitude for the blood donation of educated (97.1%) and illiterate (76.7%) blood donors.

Conclusion: This study confirms that motivation to donate blood was higher amongst the blood donor with more knowledge and positive attitude towards blood donation. The awareness and knowledge have a significant impact on blood donation in general population.

Keywords: Blood bank, blood donation, educated and illiterate blood donor

INTRODUCTION

Blood donation is a natural gift for patients in emergencies because it can save their lives. Despite its heavy demand, only 20-30% of the world's healthcare systems can meet the requirement of safe and healthy blood transfusion.^{1,2} Everyday there is a massive demand for blood in all parts of the world in people of all age groups. Millions of blood bags are collected every year, yet the demand is increasing every day pushing for the adequate and timely provision of blood.^{3,4} Historically, Blood transfusion has been used as a treatment of choice for severe blood loss in wars, but nowadays, it is an important component in managing healthcare emergencies.⁵ Despite saving millions of lives every year by blood transfusion, yet the safety and quality of blood transfusion are still the concern particularly in the developing countries.⁶

Well organised blood transfusion services (BTS) are the backbone of a health care system, which in turn relies on the availability of volunteer blood donors. BTS uses the awareness and knowledge-based strategies on the social mobilisation of the valuable human resource in the form of Voluntary Blood Donation (VBD)^{7,8} Despite enormous efforts and many programs being organised worldwide regarding blood transfusion, the availability of safe and adequate blood remains insufficient to meet the increasing demand in developing countries including Pakistan. The major challenge is the recruitment of non-paid, voluntary blood donors to transfusion services.⁹ Problems faced in this regard include lack of awareness/knowledge, misconception, negative attitude towards voluntary blood donation and lack of infrastructure resulting in the low practice of donation¹⁰.

Increasing the percentage of regular donors is a significant step in fulfilling the demand for blood supply¹¹. The decision to donate blood is encouraged by factors including education and knowledge among blood donors. Increasing the level of knowledge, awareness and positive attitude towards blood transfusion is the priority of all national blood transfusion centres in Pakistan. The first step to achieve this is to conduct comprehensive studies about knowledge and attitude of the people regarding blood donation to gauge the current scenario, beliefs and both positive and negative attitudes of the people regarding blood donation¹².

Fear of needles, pain, future weakness, an objection from elders, illiteracy and ignorance are the primary causes why people hesitate in donating blood. All these myths and misconceptions are to be removed in order to collect a sufficient amount of blood in blood banks for saving the life of the patients^{13,14}. We aimed our study to determine the knowledge and attitude about blood donation and transfusion in blood donors attending a tertiary care hospital in Lahore.

METHODS

The present study was based on cross-sectional research design, where both qualitative and quantitative methods were used through a structured survey questionnaire. This study included blood donors 18 to 60 years of age visited at The Children's Hospital & The Institute of Child Health, Lahore from June 2016 to December 2016. The study was approved by the institutional Ethical Committee. The data was collected by using a self-administered questionnaire which was prepared in English. The questionnaire includes sociodemographic factors, knowledge and attitude.

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The definition of literate is someone who can read and write or someone who is educated in a specific area of knowledge. An illiterate person is someone who cannot read and write. Knowledge is awareness about blood donation, and attitude is a behaviour which can be positive or negative. Positive attitude defined as a willingness of the people to donate the blood and they know about the importance of blood donation. Negative attitude defined as that the people have a fear about blood donation that they can suffer from some disease after donating the blood or they are afraid of needle pain and or any other consequences.

A sample size of 246 persons including educated and illiterate donors (males and females) were included in the present study. The sample size was calculated through WHO software for calculating the sample size in health studies.

$$\text{Sample Size} = n = \frac{Z^2 p(1-p)}{d^2}$$

$$n = \frac{1.96^2(0.8)(1-0.8)}{0.05^2}$$

n = 246

Where,

n=sample size

Z=statistic for a level of confidence (1.96 for 95% confidence interval)

P=prevalence or population taken as 80%¹⁵

d=precision (5%=0.05)

The collected data was checked for its accuracy, consistency and completeness before analysis. SPSS software v. 23 was used for the data analysis. The confidentiality of data was maintained at each level during the study period.

RESULTS

Questionnaires were filled from all 246 educated and illiterate blood donors in this research work, making the response rate 100%. Majority of responders were in the age range of 18-30 years. From the total participants, 239(97.2%) were male, and 7(2.8%) were female. Out of the total respondents, 58(23.6%) were illiterate, and 188(76.4%) were educated ranging from under middle to master's level (Table-I).

Overall knowledge on blood donation was found highest among educated blood donors (91.7%) and lowest among illiterate blood donors (73.2%) (Table-II). Similar results were obtained for positive attitude for blood donation of educated (97.1%) and illiterate (76.7%) blood donors (Table-III).

Table-I: General characteristics of blood donors (n=246)

	Characteristics		Frequency	%age
Gender	Male		239	97.2
	Female		07	2.8
Age	18-30 years		189	76.8
	31-45 years		55	22.4
	>45 years		02	0.8
Qualification	Illiterate		58	23.6
	Educated	Under Middle	48	19.5
		Matric	48	19.5
		Intermediate	44	17.9
		Graduate	33	13.4
		Masters	15	6.1

Table-II: Knowledge of blood donors regarding blood donation

Is blood donation harmful to the donor?			
Blood donors	Yes	No	Total
Educated	8 (4.3%)	180 (95.7 %)	188
Illiterate	20 (34.5%)	38 (65.5 %)	58
Is there a need to give incentives to those who donate blood?			
Educated	18 (9.6%)	170 (90.4 %)	188
Illiterate	19 (32.8%)	39 (67.2 %)	58
Do you think donating blood lower donor's immunity?			
Educated	6 (3.2 %)	182 (96.8 %)	188
Illiterate	13 (22.4 %)	45 (77.6 %)	58
Does Blood donation make you weak?			
Educated	30 (16.0%)	158 (84 %)	188
Illiterate	10 (17.2%)	48 (82.8 %)	58
Average Knowledge	Knowledge	Ignorance	
Educated	172.5(91.7 %)	15.5 (8.3 %)	
Illiterate	42.5(73.2 %)	15.5(26.8 %)	

Table-III: Attitude of blood donors regarding blood donation

Attitude			
Will you always disclose correct information about your health before donating blood?			
Educated	188 (100%)	0 (0.0%)	188
Illiterate	41 (70.7%)	17 (29.3 %)	58
Are you interested in donating blood to known persons only?			
Educated	20 (10.6%)	168 (89.4%)	188
Illiterate	13 (22.4%)	45 (77.6%)	58
If you know the significance of blood donation will you be interested in donating blood?			
Educated	188 (100%)	0 (0.0%)	188
Illiterate	49 (84.5%)	9 (15.5%)	58
Do you want to donate blood only if someone paid for donating blood?			
Educated	02 (1.1%)	186 (98.9%)	188
Illiterate	15 (25.9%)	43 (74.1%)	58
Average Attitude	Positive Attitude	Negative Attitude	
Educated	182.5 (97.1%)	5.5 (2.9 %)	
Illiterate	44.5 (76.7%)	13.5 (23.3%)	

DISCUSSION

There is a shortage of blood donors worldwide because of its high demand and increasing use of blood transfusion therapy in medical treatment procedures, especially in developing countries. The maintenance of a safe and adequate blood supply is an area of concern to healthcare providers particularly with the increasing demand.¹¹ Therefore, increasing the level of knowledge and positive attitude towards voluntary blood donation is essential.¹² In our study, we made an effort to find out the level of knowledge and attitude towards voluntary blood donation among educated and illiterate blood donors.

Out of 246 educated and illiterate blood donors in this research work, (97.2%) were males and (2.8%) were females. The overall knowledge on blood donation was found highest among educated blood donors (91.7%) and lowest among illiterate blood donors (73.2%). Similar results were obtained for Positive attitude for blood donation as (97.1%) of educated blood donors have a positive attitude and (76.7%) of illiterate blood donors have a positive attitude towards blood donation. The results of

our study are in agreement with the study done by Misganaw C et al., in which he observed high knowledge among educated people (83.7%)¹. Sabu et al (2011) also found similar results with the average level of a positive attitude as (88 %) among the educated donors¹⁶.

These study results are in contrast with the study done by Dejen et al., and Tadesse et al., who reported a low percentage of knowledge among educated donors (54.2 % and 54 % respectively)^{6,10}. Demissie et al., also found the overall attitude of the blood donors as 47.4% which is low than our study¹⁷. According to these studies, the reasons for not donating blood were fear of needle, transmission of infections. Illiterate blood donors think that after donation people become weak and it causes anaemia. They have a negative attitude on the statement “blood donation is extremely safe”, this attitude and fear of transmission of the disease has a negative impact on the practice which can be found in this study as well.

The findings of this study highlight the importance of conducting periodic awareness programs on voluntary blood donation among educated and illiterate blood donors. About 96% of the respondents of this study showed a positive attitude towards blood donation by showing interest in blood donation if they know the importance of blood donation. This indicates that proper information regarding safe blood transfusion was not given to the educated and illiterate blood donors. Different researched have shown that regular awareness and motivational programs in hospitals among blood donors can bring a lot of positive changes in voluntary blood donation^{18,19}.

CONCLUSION

The study found that the knowledge regarding blood donation is comparatively high in educated blood donors than in the illiterate blood donors. There is an urgent need to take all necessary steps in developing timely and effective awareness program on safe blood transfusion among the illiterate blood donors in the hospital. Fear of blood donation must be minimised by awareness strategies among potential blood donors. Knowledge and attitude should be considered as most important during voluntary blood donation program development, and awareness programs must be enhanced to create knowledge and awareness about blood donation. The study concluded that these misconceptions regarding blood donation need to be adequately addressed properly.

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