

# Factors Effecting the Motivation towards Blood Donation among University Students in Lahore Pakistan

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## ABSTRACT

**Background:** Blood donation supports for the continuity of life. Blood donation is becoming an important aspect to improve the quality of life. There is a lack of balance between supply and demand for blood. Blood donation practices are rising all over the world.

**Aim:** To examine the motivation towards blood donation in public and private sector universities in Lahore.

**Methodology:** A cross sectional study was carried out during the month of 16<sup>th</sup> Feb to 15<sup>th</sup> August 2018. The data were collected using a self-structured questionnaire from 470 University students in Lahore after simple random sampling. 272 females and 198 males participated in this study. Factor analysis was performed to define latent structure regarding motivation towards blood donation.

**Results** The study explored the six factors of motivation towards blood donation. These factors were labeled as Personal Benefits, Moral values, Social concern, Motivation to help, Positive feelings and Inspiring derive. These eight factors account for 70% variability.

**Conclusion:** The study showed that Personal Benefits, Moral values and Social concern has positive impact on positive feelings about blood donation. It can be concluded that people with positive feelings try to help more to others by blood donation. Gender had a significant impact on social concern, helping others and inspiring derive in constructing motivation towards blood donation.

**Keywords:** Attitude, Blood donation, Blood donor, Education.

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## INTRODUCTION

Blood donation supports for the continuity of life<sup>1</sup>. Blood donation is becoming an important aspect to improve the quality of life. There is a lack of balance between supply and demand for blood. Therefore, it has become a big concern for many countries to balance the difference between demand and supply. Blood donation practices are rising all over the world<sup>2</sup>. The demand for blood transfusion is increasing day by day in relation to increased risk of anemia, cancer, major chronic disease and other severe medical problems<sup>1-4</sup>.

Safest blood source is "Voluntary Non Remunerated Donors (VNRD)"<sup>5</sup>. Different health organizations and WHO strives hard to get the entire donation of the blood through this source. More than 50% of the population does not donate blood<sup>4</sup>. Major cause of hesitation towards blood donation is associated misconception. People hesitate to donate blood because they think they may develop serious medical complications after blood donation<sup>6,7</sup>. It is observed that fear and anxiety, a blood donor experience at first time ends when they donate blood regularly<sup>8</sup>.

WHO reported that 38% of the VNRD is from the age less than 25 years. Therefore young generation can be motivated for 100% VNRD<sup>9</sup>. Young people constitute a great proportion of the population in any country. They are the most dynamic source to get the blood. Young students

need encouragement and motivation for donating blood<sup>10</sup>. There may be several factors that encourage students to donate blood. The present research aims to explore those factors.

## METHODOLOGY

A cross sectional survey was carried out for current study. The data were collected from 16<sup>th</sup> February to 15<sup>th</sup> August 2018 from students enrolled in public and private sector universities in Lahore, Pakistan. Sample size was taken as 470 including 272 females and 198 males. The data were collected using self-structured questionnaire. Two stage cluster sampling was applied to attain the required sample size. Universities were taken at first stage and students belonging to different universities were taken at second stage. Questionnaire consist of 23 questions related to motivational factors along with demographic information about the subject's age, marital status, degree level, job status, gender and residential area.

Exploratory Factor Analysis (EFA) was used to explore those motivational factors that play significant role in blood donation. The significant relation of extracted factors with demographic variables was tested using Kruskal Wallis test and Mann Whitney test.

## RESULTS

The percentage of female participants in the sample was 57.87% and 42.13% was of male participants. Among the

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total students, 72.1% have adequate knowledge of blood donation. Exploratory Factor Analysis (EFA) was used to explore the factors for motivation of blood donation. The value of Cronbach alpha was found 0.7. It can be concluded that questionnaire used to find the motivational factors of blood donation is reliable. Results of Kaiser-Mayer-Olkin (KMO) test and Bartlett's test of sphericity gives an indication to continue factor analysis. Sufficient correlation was seen between the items.

Twenty three questions were asked in order to explore factors that motivate young population for blood donation. Six factors were extracted using criterion of Eigen Value greater than 1.0 that accounts for almost 70% variability of data. These factors were identified using Principal component matrix with Varimax rotation. These factors were labeled as Personal Benefits, Moral values, Social concern, Motivation to help, Positive feelings and Inspiring derive (Table 3).

To test whether significant difference exist between the categories of demographic variables in accordance to extracted factors, Kruskal Wallis test was used for making comparison between more than two means and Mann Whitney test was used for comparison of two categories.

*H<sub>0</sub>: There is no significant difference for extracted factors across various categories of age group.*

*H<sub>0</sub>: There is insignificant difference among extracted factors among males and females.*

*H<sub>0</sub>: There is insignificant difference among extracted factors across degree levels.*

*H<sub>0</sub>: There is insignificant difference among extracted factors across marital status.*

*H<sub>0</sub>: There is insignificant difference among extracted factors for rural and urban area.*

*H<sub>0</sub>: There is insignificant difference among extracted factors for employment status.*

Table 1: Percentage distribution of knowledge, attitude and practice in socio-demographic factors

Variable	Category	Total
Age	18-21	45.53%
	22-25	39.57%
	26-29	9.57%
	30-33	2.76%
	34 & above	2.55%
Gender	Male	42.12%
	Female	57.87%
Degree	BS	62.76%
	MS	32.12%
	PhD	5.10%
Marital Status	Single	60.42%
	Married	39.57%
Residential Status	Rural	35.32%
	Urban	64.68%
Job Status	Employed	42.97%
	Un-employed	57.02%

Table 2: KMO and Bartlett's Test:

Kaiser-Mayer-Olkin Measure of Adequacy	0.810
Bartlette's Test of Approximate X <sup>2</sup>	5261.046
Df	253
Sig.	0.000

Table 3: Labeling Factors

Factors & Items	Factor Loadings	Eigen Values	Explained Variation	Cornbrash's alpha
<b>Factor 1-Personal Benefits</b>		4.905	15.995	0.903
Financial Benefits	0.863			
Test Intensity	0.894			
Beneficial for health	0.852			
Reducing Obesity	0.891			
Free Health Check	0.694			
<b>Factor 2-Moral Values</b>		3.890	12.068	0.842
Religious Duty	0.813			
Moral Duty	0.815			
Idea for Saving Life	0.781			
Spiritual Satisfaction	0.804			
<b>Factor 3-Social Concern</b>		2.387	11.417	0.777
Donate to nearest blood drive	0.636			
Donate to special occasion	0.710			
Makes you social person	0.809			
Make you feel important	0.744			
<b>Factor 4-Motivation to Help</b>		1.967	10.795	0.791
Donate in emergency	0.663			
Help to other	0.647			
Help to your relatives	0.817			
To help anonymous in emergency	0.793			
<b>Factor 5-Positive Feeling</b>		1.454	10.006	0.791
Do not cause HIV	0.884			
Needle fear is not important	0.840			
Do not effect physical strength	0.872			
<b>Factor 6-Inspiring Drive</b>		1.313	8.922	0.749
Blood donation is an inspiring drive	0.730			
Blood donation is an act of altruism	0.800			
Important cause for you	0.805			

Table 4: P-value for Demographic Variables with respect to Factors

Factors	Age	Gender	Degree level	Marital Status	Residential	Job Status
Personal Benefits	0.887	0.678	0.716	0.608	0.012	0.056
Moral values	0.572	0.664	0.244	0.940	0.723	0.845
Social Concern	0.364	0.000	0.093	0.294	0.406	0.878
Motivation to Help	0.101	0.083	0.652	0.440	0.730	0.142
Positive Feeling	0.013	0.313	0.005	0.355	0.958	0.451
Inspiring Derive	0.362	0.051	0.068	0.049	0.397	0.088

Significant relationship of personal benefits, moral values and social concern exist with positive feelings towards blood donation while statistically insignificant relation was observed among inspiring derive and positive feelings.

## DISCUSSION

This study explores the significant factors for blood donation. Data was collected using self-structured questionnaire from universities located at Lahore district. Two stage cluster sampling was used where the universities were selected at first stage and a simple random sample from the selected universities was collected at second stage. Factor analysis extracted those factors that associate with motivation of blood donation. Six motivational factors had been extracted. Extracted factors and demographic variables were compared. Significant impact of positive feelings is observed across different age groups.

In Serbia, blood donor must be at least 18 years old so a high proportion of voluntary blood donation is students during their high schooling<sup>11</sup>. In the study under discussion, students of age-group more than 30 years have poor attitude towards blood donation. In a past study, the attitude of first year and final year students was observed to be the same for blood donation<sup>11</sup>. Senior students showed less interest towards blood donation as compared to junior ones<sup>11</sup>. We must promote blood transfusion at colleges and university levels. Blood transfusion institutes organize various programs at institute, secondary school and university to promote blood donation<sup>12</sup>.

Significant variation was found among male and female with respect to factors i.e. social concern, motivation to help and inspiring derive. Positive feelings, motivation to help and inspiring derive are those main factors that stimulates a person for blood donation. Blood donation is found to be more frequent when donating to a family member or close relatives in need rather than a voluntary act<sup>13,14</sup>. Male donors are more likely to donate blood. Female donors donate blood only when there is no male donor or male donor is inaccessible<sup>16</sup>. In the past literature a study revealed that blood donation rate is higher among women<sup>14,16</sup>. Student donors significantly have more positive attitude as they consider as compulsory for healthy individual<sup>11</sup>. Females are more likely to become a blood donor to an unknown person as compared to males<sup>11</sup>. In the present study, the proportion of female is more than the male participants.

Motivation to help and moral values were insignificantly different among extracted factors across various demographic variables. Students belonged to rural areas shows good practice of blood donation while students belonged to urban areas show good knowledge.

## CONCLUSION

Inspiring derive significantly varies for single and married respondents. Significant effect of Personal Benefits exists across rural and urban respondents. The study showed

that Personal Benefits, Moral values and Social concern has positive impact on positive feelings about blood donation. It can be concluded that people with positive feelings try to help more to others by blood donation

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