



## BLOOD DONATION; BLOOD DONATION PERCEPTION AND WILLINGNESS IN PEOPLE VISITING RAWAL GENERAL & DENTAL HOSPITAL, ISLAMABAD

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**ABSTRACT... Objectives:** To assess the perception of people about blood donation, to determine the willingness of people to donate blood voluntarily to blood banks and to identify the frequency of people who have ever donated blood. **Study Design:** Cross sectional study. **Setting:** Rawal General and Dental hospital, Islamabad. **Period:** Three months from March 2015 to May 2015. **Methods:** 119 people (patient's attendants) visiting the hospital were included by using the non-Probability convenience method of sampling. A semi structured questionnaire was filled by interview method by the researcher. The variables were the questions asked about their age, gender, education, occupation, willingness to donate blood and perception about blood donation in terms of social obligation and effects on health. The variables of Perception and willingness was compared in relation to age, gender, education and occupation of the respondents and then were tested for statistical significance using Chi Square ( $\chi^2$ ) test of independence. Statistical analysis was done using SPSS 21 version. **Results:** Regarding blood donation (70 %) of the respondents were willing to donate blood voluntarily to the blood banks. The percentage of people who had ever donated blood in their life was (36.1%). Regarding perception of blood majority (82.35 %) perceived it as a beneficial thing for health and (91.6%) considered it as a social obligation. (81.5 %) people said that there are no bad effects of blood donation. More young and male respondents were willing for blood donation. **Conclusion:** In this study, willingness to donate blood was found in majority of people and the intention was of helping others and as a social obligation. But few of them had practically donated blood due to fear of anemia and weakness. Most of the people perceived it as a social obligation and a beneficial thing for health.

**Key words:** Blood Donation, Perception, Willingness.

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## INTRODUCTION

Blood has always held mysterious fascination for all and is considered to be the living force for our body. It is estimated that donation by 1 % (10 per 1000 population) of the population is generally the minimum needed to meet a nation's most basic requirement for blood. Lack of knowledge and facilities, fear, religious, socioeconomic and cultural factors, influence the willingness and perceptions of people to donate blood.

Globally there is a serious mismatch between demand and availability of blood. Every second of every day all around the world people belonging to different age groups and various fields of life need blood transfusion. Blood donation has

always been considered as a humanitarian act as it is very crucial in saving lives. Ample and continuous blood supply is required from donors for various surgeries, cancer and hematological disorders. Blood is donated by voluntary, replacement and professional donors. In order to meet the increasing demand of blood there is requirement of donor inputs on regular basis.<sup>1</sup>

According to WHO data blood donation rate is higher in high income and lower in middle and low income countries.<sup>2</sup> The blood donation rate per year, million pints in USA is 15.7, of India 9, while of Pakistan only 1.5.<sup>3,4,5</sup>

It is observed all around the world that there is

serious mismatch between demand and availability of blood.<sup>6</sup> Many religious, socioeconomic and cultural factors have resulted in misconceptions and fears regarding blood donation, resulting in limited number of voluntary donors.<sup>1</sup> Social responsibility, peer influence, access to health communication and knowledge about importance of blood donation are mentioned as some of the factors that motivate individuals to donate blood.

In Pakistan more than 1.5 million pints of blood are collected each year. Among them about 65% is from replacement donors, 25% from volunteer donors and about 10% from professional donors. The World Health Organization recommends that blood should be collected only from voluntary, unpaid repeat donors who can assist blood bank to manage blood supply and schedule transfusion smoothly.<sup>2</sup>

Transmission of values to generations among family members practicing donation and the influence of active blood donors on others are also noted. Similar studies have been done at international, national and local levels. A study of Saudi Arabia discussed the perceptions about voluntary blood donations among the supportive service employees of a rural tertiary care Hospital.<sup>2</sup> Another study has been done in India related to the knowledge, attitude and beliefs of general population.<sup>1</sup> A qualitative study conducted in Rawalpindi explained the reasons for people donating and not donating blood voluntarily in Pakistan.<sup>3</sup> Reasons found were lack of information, lack of trust in functioning blood banks, fear of diagnosis of disease like HIV, hepatitis during screening and blood deficiency after donating blood.

Keeping in view the importance of donation and transfusion, our study was conducted to determine the Blood donation Perception and willingness in people visiting Rawal General and Dental hospital, Islamabad. This will help public health authorities to design health education programs to dispel the myths and to inspire the general public to come forward for this noble cause.

## METHODOLOGY

This study was a Descriptive cross-sectional study conducted on 119 people visiting Rawal Institute of Health sciences, Islamabad. The people visiting were the patient's attendants who were accompanying the patients. The study was conducted over a time period of three months from March 2015 to May 2015 by the non-Probability convenience method of sampling. Inclusion criteria was both genders and age greater than 15 years. Data was collected by the researcher using a semi structured questionnaire, which was in English language and was filled after interviewing the respondents. Before carrying out the actual study, a pilot study was carried out on 20 respondents and then the questionnaire was changed accordingly. Prior permission was taken from the study subjects and confidentiality of the people was assured.

The variables were the questions related to the perception and willingness of blood donation. The variables included were to their age, gender, education and occupation. They were asked whether they have ever donated blood in life and willing to donate blood in future. Reasons were asked for their willingness or non-willingness in the close ended Questions. They were also asked what bad effects they know of blood donation and whether they perceive it as a social obligation and beneficial thing for health.

These variables of perception and willingness were compared in relation to age, gender, education and occupation and then were tested for statistical significance using Chi Square ( $\chi^2$ ) test of independence. Statistical analysis was done using SPSS 21 version.

## RESULTS

Total respondents were n=119 which were the Patients attendant's visiting Rawal General and Dental Hospital, Islamabad.

Age was categorized in different groups; majority of people (48.75%) were from age group 15-25 years, (21.85%) were from 25-35 years, (7.57%) from 35-45 years, (15.13%) were from 45-55 years, and (6.72%) were above 55 years of age.

Gender distribution was male (45.38%), and female (54.62%).

Education Level was divided into different groups; Illiterate (n=6, 5.042%), under matric (n=22, 18.49%), Undergraduate (n=54, 49.38%), Graduate and above (n=37, 3.09%).

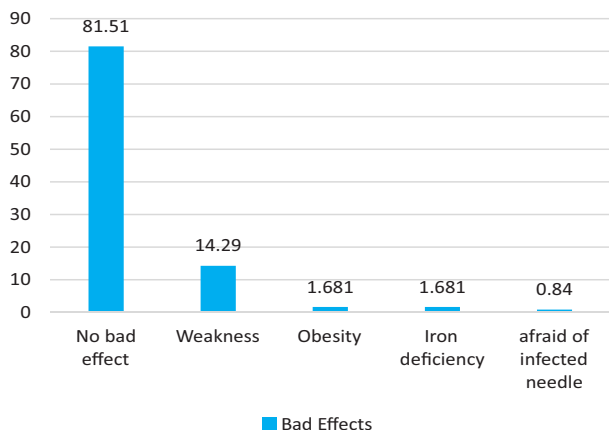
Occupation categories were medical (n=36, 30.25%) and non-medical (n=83, 69.75%).

Results about questions asked regarding willingness (Table 01) showed that (70%) were willing to donate blood voluntarily to blood bank. But (36.1%) had donated blood previously in life. Majority of people (82.35%) perceived it as a beneficial thing for health and (91.6%) considered it as a social obligation.

Sr. No	Variables	Response noted	
		Yes (%)	No (%)
1.	Willingness to donate blood	69 (57.98%)	50 (42.01%)
2.	Previous blood donation	43 (36.13%)	76 (63.86%)
3.	Social Obligation	109 (91.60%)	10 (8.4%)
4.	Beneficial for health	98 (82.35%)	21 (17.65%)

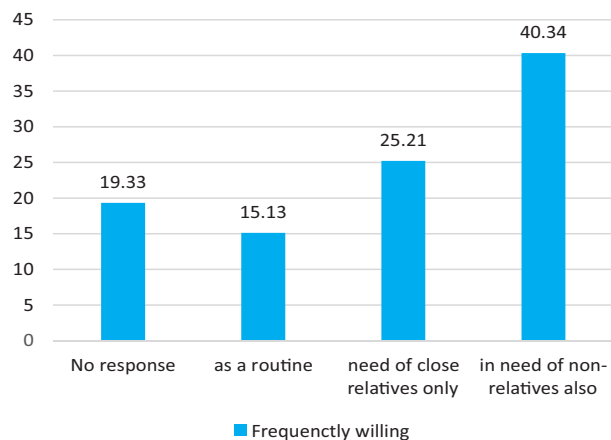
**Table-I. Variables for willingness and perception about blood donation (n=119)**

(81.5%) respondents said that there are no bad effects of blood donation. (Figure-1)



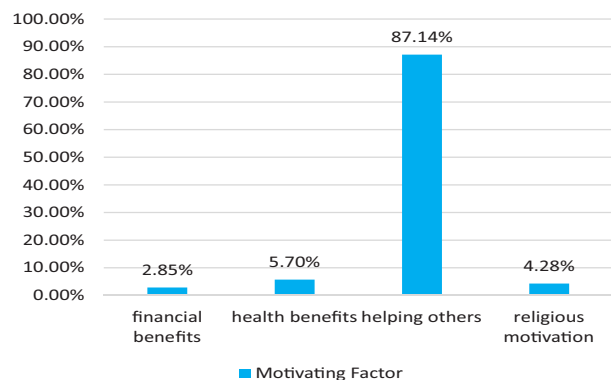
**Figure-1. Bad effects on health (n=119)**

Among the 69-willing people, only 15.3% were willing to donate blood voluntarily as a routine to blood bank, and 40.34% claimed that they would donate blood in need of no-relatives also. (Figure-2)



**Figure-2. When will you donate Blood (n=69 willing people)**

Out of 69 people 60 were willing to donate blood. (87.14%) said they wanted to donate blood in order to help others (Figure-3).



**Figure-3. Motivating factors of willing people (n= 69 willing persons)**

Among 50 non-willing people, 32% said that they do not donate blood by fear of physical weakness and 28% with fear of anemia (Figure-4).

**Cross Tab Results (Figure- 5.1 to 5.5)**

Willingness was observed to be better in young age groups (67.20% willing in 15-25 years people) as compared to the older people. (Figure-5.1) There was a significant relation found between age and willingness of blood donation using chi-square test (p value less than 0.05).

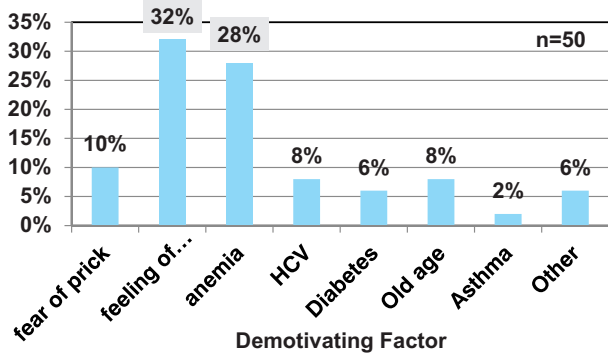


Figure-4. Demotivating Factors of non-willing people (n=50)

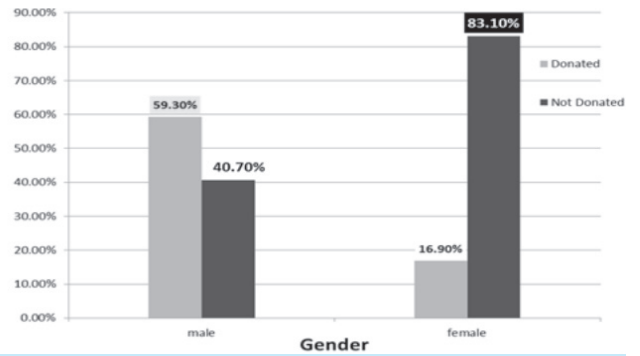


Figure-5.3. Previous blood donation and Gender (P-Value=0.000)

Willingness to donate blood was compared among different education groups (Figure-5.4) and was found to be better in undergraduates (56.50% willing) as compared to the graduates (18.80% willing) and result was significant as (p value was less than 0.05). Main reason told by graduates for non-willingness was feeling of weakness (30.4%) and anemia (21.7%).

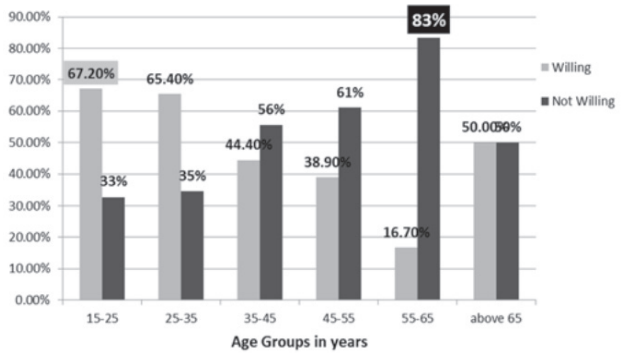


Figure-5.1. Willingness to donate blood and Age (P Value=0.048)

Willingness to donate blood was compared among males and females and different age group. (Figure-5.2) More males were seen to be willing for blood donation and had donated blood previously. There was a significant relation between gender and history of previous blood donation. (p value less than 0.05). A small percentage of females had donated blood previously and main reason was anemia (20%) and fear of weakness (17%).

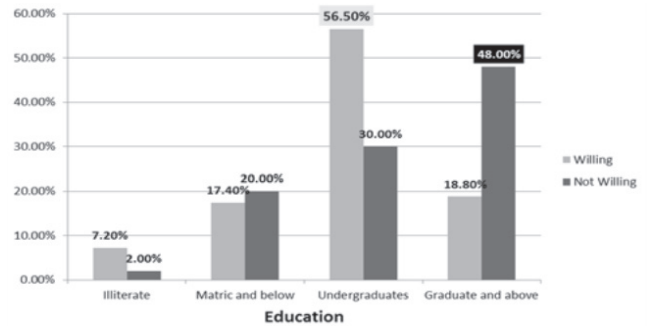


Figure-5.4. Willingness to donate blood and Education (P-Value=0.03)

People related to medical profession were more willing to donate blood (72.25%) as compared to non-medical people willing (51.8%) as in (Figure-5.5). This result was statistically significant as (p value was less than 0.05).

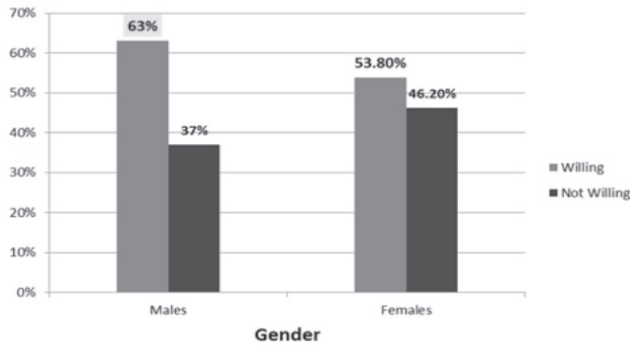


Figure-5.2. Willingness to donate blood and Gender (P-Value=0.13)

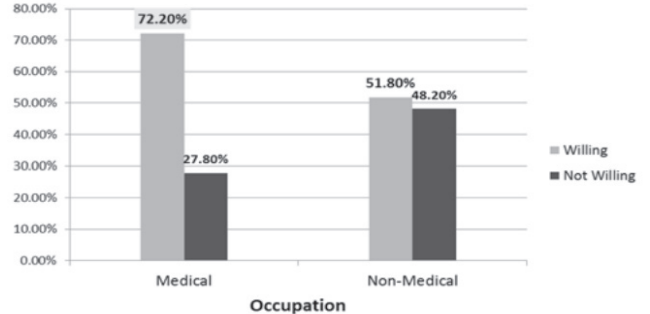


Figure-5.5. Willingness to donate blood and Occupation (P-Value=0.038)

## DISCUSSION

This study, showed that (36.1%) respondents had donated blood voluntarily to blood banks and (57.9 %) were willing to donate blood in future whereas a survey conducted in Austria showed that 66% public donated blood in their life.<sup>7</sup> This difference may be because in our setup there is no system of motivating people for welfare of society.

In our study, it was found that more males (59.3%) had donated blood than females (16.9%). This is similar to a study done in Israel where more males (77%) rather than female donors (48%) were reported.<sup>8</sup> Same results were found in a study of Saudi Arabia where the blood donation in male was 66% and females was 13.3%. This may be because generally the females are more conscious of their health and afraid of weakness. Females of our study were willing but practically few of them donated, as 20% of our females had fear of anemia, which may be true as blood can be donated with a Hemoglobin of 12 or higher.<sup>9</sup>

This study showed that young people were more willing to donate blood than older ones with the percentages being 67.2% and 16.7% respectively. This is similar to results of a study of Bostwana the percentage was found to be highest (48.7%) in young age group 21-30 years whereas lowest (11.7%) in 51years and above.<sup>10</sup> The low percentage of willing elderly individuals in our study can be attributed to the fact that they are afraid of becoming weak upon donation.<sup>11</sup> Reasons mostly observed for non-willingness of blood donation in our study were rear of weakness in 32 % and anemia in 28%. In a survey of Chennai, India main reason for not donating blood were pain of needle prick in 55%, which in our study was told by only 10% respondents.

In this study (91.6%) people considered blood donation a social obligation, just similar to a study conducted in Saudi Arabia where (91%) subjects took blood donation as a religious and social duty<sup>12</sup> this may be due to our common religious beliefs of helping society.

In our study only (1.7%) individuals were willing to

donate blood for financial gains while according to a study conducted in Congo, 12.6% subjects sold their blood.<sup>13</sup> Also, in a Saudi Arabian study, 85% subjects rejected the idea of taking money in exchange for blood but out of these 85%, 63% approved the idea of accepting a token gift from the recipients.<sup>12</sup>

In our study it was observed that Illiterates were mostly willing to donate blood and graduates and above were the least willing. This is similar to a study of Karachi where it was noted that blood donation decreases as education level increases as there were 8% willingness in matric pass respondents as compared to 34% in Illiterates.<sup>16</sup> Educated people were having more myths. 100% of illiterate public said that there is no bad effect of donation and 83% of them were willing to donate blood for helping others although practically 33% had donated blood. This shows that educated people also need to be targeted for health education and removing misconceptions.

## CONCLUSION

In this study, willingness to donate blood was found in majority of people and the intention was of helping others. But few of them had donated blood, mostly due to fear of anemia and weakness. Most of the people perceived it as a social obligation and a beneficial thing for health.

## RECOMMENDATIONS

Blood donation willingness and perception will be stronger if the Misconceptions and myths related to blood transfusion will be cleared by health education and counseling. People should be guided about eligibility criteria for blood transfusion. Public record of blood donors should be available on internet with their address and phone numbers so that people who need blood can contact them. Blood transfusion services, especially sterilization procedures should be improved. Donors should be facilitated during blood donation process by providing them a friendly and pleasant environment so that they are encouraged. Appreciation and incentives should be given to blood donors e.g by giving certificates or providing some other free medical services, so that more people are motivated for





donating blood.

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