

PSYCHOSOCIAL VARIABLES OF HIGHLY MOTIVATED VOLUNTARY BLOOD DONORS AT BLOOD BANK OF A MEDICAL COLLEGE

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ABSTRACT

Background: The adequacy of blood depends on blood donation rates and numbers of blood donors. To prepare adequate blood supplies, it is essential to investigate the factors that motivate individuals from donating. This study aimed to identify the character of highly motivated donors. This study was undertaken to study the motivational factors leading to voluntary blood donation and understanding the psychosocial variables of blood donors.

Methodology: We selected 50 regular blood donors who have donated blood five or more than five times.

Results: It was observed that most of the voluntary donors were males (94%) and belonged to age group 41-50 years (42%). Most of the donors (86%) had studied up to graduate and above. 70% donors have donate up to 30 times and 88% donors have started their first donation before 25 years of age. 94% donors have donated blood first time in voluntary blood donation camp.

Conclusion: Motivation, recruitment and retention of voluntary blood donors are important criteria to achieve safe blood donation.

Keywords: Voluntary Blood Donors, Motivation, Psychosocial characteristics

INTRODUCTION

In medical emergencies, blood transfusions are often the only way to save an individual's life. A sufficient supply of donated blood is thus literally a matter of life and death. Blood cannot yet be produced artificially, and some components of blood can only be stored for a short period of time. Moreover, the amount a single individual can donate is limited. Thus, in order to meet the need for blood, a wide and healthy base of donors, willing to give blood when required, is needed.

Historically, many blood donation services have relied on voluntary, non-remunerated donations and thus on the prosocial motivation of their donors.¹ Despite the inherent free-rider problem of this policy, the arrangement seems to have worked satisfactorily most of the time. Three problems have, however, emerged recently that increase the risk of blood shortages in the future. First, innovations in surgery and oncological therapies have led to more aggressive medical treatments in cases that were previously thought inoperable or incurable, increasing the number of transfusions, and requiring larger amounts of blood.

Second, there is a general tightening of donation eligibility criteria, such as stepped-up travel restrictions or restrictions on past blood recipients because of Creutzfeldt-Jakob disease. Third, there are widespread seasonal shortages due to reduced supply, particularly in summer and early winter.¹

The safest donors are found among people who donate their blood voluntarily once or twice a year, purely out of altruism, and are self-aware of their unsuitability to serve as blood donors where there might be a slightest risk of causing health damage for blood recipients.² Donation of blood is a behavioral phenomenon and is always considered a humanitarian act. During national emergencies like the Gujarat earthquake, there was no dearth of voluntary donors. What is not realized perhaps is that, there is a necessity for blood even otherwise and hence there is a need for motivation to donate blood voluntarily. The decision to donate blood is motivated by a host of factors including altruism, social behavior, social pressure and replacement. Recruitment and retention of donors to sustain and increase the donor base are critical for blood banks. This study was undertaken with the objective of

studying the psychosocial variables and motivational factors of voluntary blood donors.³ The fragile balance between blood supply and demand forces blood banks to constantly search for more efficient ways to recruit blood donors⁴ If blood collection agencies are to continue meeting the demand for a safe and adequate blood supply, communication professionals must find ways to recruit more donors to give blood more times. One possible demographic to target is young people, who could supply blood for years to come if they became regular donors.⁵

MATERIAL AND METHODS

The study was carried out in the Blood Bank associated with a Medical College. 50 voluntary blood donors are included in the study who has donated blood 5 or more than five times. The study questionnaire was prepared to know the age, sex, level of education, number of donation, age of first donation and to know that the first donation was voluntary or replacement. Finally the cause of Motivation to donate multiple times is asked. The responses of the subjects were recorded as narrated by them.

Selection of the donors: All donors coming and seeking to donate blood were subjected to a preliminary rapid medical examination to detect any obvious disease. Donor whose weight was more than 50 kg was selected for donation. The provisionally selected donors were subjected to hemoglobin estimation by specific gravity method. Hemoglobin less than 12.5 is rejected for donation.

RESULTS

A total of 50 voluntary donors were interviewed out of which 94% were males and 6% females (Table 1). 42% donors belonged to the age group 40-50 and 24% donors belonged to age group 30-40 years. The youngest donor was aged 19 years and the oldest was 65 years of age.

Table 1: Age group and sex of donor

Age of donor	Male	Female	Total
18-20	1(2)	0(0)	1(2)
21-30	9(18)	0(0)	9(18)
31-40	10(20)	2(4)	12(24)
41-50	20(40)	1(2)	21(42)
51-60	6(12)	0(0)	6(12)
>60	1(2)	0(0)	1(2)
Total	47(94)	3(6)	50(100)

86% donor had studied up to graduate level and above, 14% donors have education of high school level. No donor was illiterate. (Table: 2)

80% donors have donated blood up to 30 times. Two donors have donated blood more than 100 times. (Table 3)

Table 2: Literacy level of Donor

Literacy level	No. of Donor (%)
Illiterate	0(0)
Primary	0(0)
High school	7(14)
Graduate	34(68)
Post graduate	9(18)
Total	50(100)

Table 3: Number of time blood donated previously

Number of Donation	Male (%)	Female (%)	Total (%)
5-10	12(24)	0(0)	12(24)
11-20	12(24)	3(6)	15(30)
21-30	13(26)	0(0)	13(26)
31-40	3(6)	0(0)	3(6)
41-50	1(2)	0(0)	1(2)
51-60	3(2)	0(0)	3(6)
61-70	0(0)	0(0)	0(0)
71-80	1(2)	0(0)	1(2)
81-90	0(0)	0(0)	0(0)
91-100	1(2)	0(0)	1(2)
>100	1(2)	0(0)	1(2)
Total	47(94)	3(6)	50(100)

Table 4: Age at the time of first donation

Age	Male (%)	Female (%)	Total (%)
18-20	26(52)	0(0)	26(52)
21-25	16(32)	2(4)	18(36)
26-30	3(6)	0(0)	3(6)
31-35	0(0)	0(0)	0(0)
36-40	0(0)	1(2)	1(2)
>40	2(0)	0(0)	2(4)
Total	47(94)	3(6)	50(100)

Most of the donors (88%) has initiated blood donation at younger age, between 18 to 25 years of age and continued donation. Only six percents of donor had initiated donation after the age of thirty.

Table 5: Type of Donation voluntary or replacement at the time of First donation

Type of donation	Male (%)	Female (%)	Total (%)
Voluntary	44(88)	3(6)	47(94)
Replacement	3(6)	0(0)	3(6)
Total	47(94)	3(6)	50(100)

94% donors have their first donation at voluntary blood donation camp. Only 6% donors have donated first time for replacement of blood.

Majority of donors have donated blood for a good cause and to save life. Very few have donated for a new experience and to get blood when needed.

Table 6: Motivating factors for donation of multiple blood donations

Cause of Motivation	Number of responses
For a good cause	35
For the society	9
To save life	23
National integration	5
For the armed forces	6
As a new experience	3
Self satisfaction	10
I'll get blood when I need	3
To stay healthy	6

DISCUSSION

Recruiting first-time donors and maintaining the existing donors are essential to ensure an adequate blood supply. In spite of the eligibility of a large number of individuals in a given population for donation, only a small proportion of the population donates regularly. Since the prevalence of transfusion-transmitted disease is lower among repeat donors, increasing the number of repeat donors improves blood safety.⁶ Much of the population may willingly donate blood in times of crisis, but the demand for blood is unrelenting.⁷ As Royse and Doochin note, the few committed multi-gallon blood donors are the main stay of blood banks across the nation.⁷ Yet who are these individuals and what is their motivation? Through studying the characteristics of multi-gallon blood donors we can get idea of valuable starting point for examination of the factors that underlie a continued commitment to blood donation.

Data generated through the WHO Global Database on Blood Safety (GDBS) reveal that 20% of the global population residing in the developed countries has access to 80% of safe blood supply, whereas 80% of the population inhabiting the developing countries has access to only 20% of safe blood.³

It was found that there were 47(94%) males and 3(6%) females donating blood. The dominance of males in this study could be due to that low hemoglobin level and menstruation in female make them unfit for blood donation so chances of female to donate more than 4 times are less. Many women do not volunteer to donate because they think they are ineligible or have actually been rejected once because of low body weight and because they are prone to anemia, especially during their childbearing age due to their increased need for iron.⁴ In India as well as in USA and Europe, most of the voluntary blood donors belong to the younger age group as had been reported in various studies.³ In our study 66% donors were in age group of 31-50 years. It is because that they have stated donation at younger age between 18-25 years and continued donating up to current age. Education creates awareness and change in attitude. This conforms to the present study where 86% donors had studied up to graduation and above.

The large proportion of replacement donors means everyday difficulties in managing blood reserves that, in

turn, translates into psychological pressure on the relatives of patients to locate donors so that their relative/friend can be transfused. In addition, replacement donors may increase the risk of transfusion-transmitted diseases in the blood supply.⁴ in our study 80% donors have donated blood for 5 to 30 times, which make them exposed to testing for all transfusion transmitted diseases every time and they become safe donors. It is clear that a much larger number of regular, voluntary donors are required to ensure and manage an adequate and safe blood supply in the country. The results of the present study reveal interesting facts regarding public behavior and perception towards blood donation and blood transfusion. If used effectively, such results can ultimately help in the effort to attract and retain more voluntary donors in general, and to convert the currently large pool of replacement donors into voluntary donors. This will enable correct scheduling and adequate supplies of safer blood and blood products. One way to increase the frequency of donations is through more effective communication with donors. Our current efforts must be rendered more methodical and accomplished through a wider range of tools (e.g. telephonic or electronic reminders, via television, advertisements and letters).⁴ In our study the donors arrange blood donation camps in their society every three months and all donors are informed about the date and time of camp by camp organizer. In our study 12% donors have donated 50 or more times.

CONCLUSION

The results provide useful insights that can be used to form plans to encourage current donors to donate more often, to motivate people eligible to donate to support the nation's transfusion needs and to convert the existing body of replacement donors into voluntary donors.

REFERENCES

- Goette L, Stutzer A. Blood Donations and Incentives: Evidence from a Field Experiment. Discussion Paper No. 3580 July 2008 IZA.
- Buciuniene I, Stoniene L, Blazeviciene A, Kazlauskaitė R, Skudienė V. Blood donors motivation and attitude to non-remunerated blood donation in Lithuania. BMC Public health 2006, 6:166.
- Ray S, Singh Z, Banerjee A. psychosocial variables of voluntary blood donors at blood bank of a medical college. Medical Journal Armed Forces India. 2005; 61(2): 130-132.
- Marantidou O, Loukopoulou L, Zervou E, Martinis G, Egglezou A, Fountouli A, Dimoxenous P, Parara M, Gavalaki M, Maniatis A. Factors that motivate and hinder blood donation in Greece. Transfusion Medicine. 2007, 17: 443-450.
- Windley J O. Young Blood: Persuading young people to give blood by applying concepts of self perception and social norms theories to recruitment Ads. August 2006. <https://mospace.umsystem.edu/xmlui/bitstream/.../research.pdf> Accessed on Jan 20th 2012.
- Kasraian L. Causes of discontinuity of blood donation among donors in Shiraz, Iran: Cross sectional study. Sao Paulo Med J. 2010; 128(5): 272-5.
- Gardener V L, Cacippo J T. Multi-gallon blood donor: Why do they give? Transfusion 1995; 35: 795-798.