

## Knowledge, Attitude, and Practice of Voluntary Blood Donors in a Blood donation camp at Kolkata, West Bengal, India.

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### Abstract:

**Introduction :** Blood transfusion is an important concern for the society, as it is life saving for patients. The safest blood donors are voluntary, non-remunerated blood donors. The blood centres find it difficult to recruit new donors and to retain them for arranging a regular blood supply for needy people, specially in developing countries.

**Objective:** To determine Knowledge , attitude and the practice of donors in a voluntary blood donation camp.

**Materials and Methods:** A cross sectional study was done on all blood donors who gave informed consent at a voluntary blood donation camp at Mullick Bazar, Kolkata. The donors were interviewed after blood donation, during resting and refreshment by a predesigned pretested structured questionnaire.

**Results :** 110 blood donors donated blood. Only 3.6% of the donors were female. Majority of donors were in age group 18-25 years (54.5%), 72.7% were graduate and only 27.3% were BPL. Majority (72.7%) were donating blood for first time. Only 11.8% of donors know that blood can be donated quarterly. 31.8% and 75.5% did not have idea that blood donation is contraindicated in HIV and hepatitis B and C respectively. Though that majority (60%) of donors donated to save lives, but 16.4% and 13.6% donated for greed of good gifts and under force of organisers respectively. 88.7% of first time donors did not donate blood previously for fear of pain while blood donation, 71.3% sited their physical weakness and 53.8% thought there are others to donate blood.

**Conclusion:** Awareness should be generated among people about the importance of voluntary blood donation to save life. More female should be motivated to donate blood as very low percentage of donors are females. The process should be made as painless as possible and that should be properly disseminated. The donors need to be motivated so that first time donors are retained. The organisers to be explained how important is to keep the blood donation camps voluntary to prevent TTD.

**Keywords:** knowledge of voluntary blood donation, transfusion transmitted diseases, motivating factors

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Date of Submission: 06-06-2018

Date Of Acceptance: 24-06-2018

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### I. Introduction

Blood transfusion is an important concern for the society, as it is life saving for patients with bleeding disorders, accidents, surgeries, inherited/acquired haematological diseases and malignancies.<sup>1</sup>The safest blood donors are voluntary, non-remunerated blood donors from low-risk populations. According to World Health Organisation (WHO) in 2011, 62 countries had their national blood supplies are based on more than 99.9% voluntary unpaid blood donations. Forty countries collect less than 25% of their blood supplies from voluntary unpaid blood donors. The World Health Organization's goal is for all countries to obtain all blood supplies from voluntary unpaid donors by 2020.<sup>2</sup>World Health Organization advocates that 3-5% of the population should donate blood every year, which would be the ideal rate for maintaining a country's stock of blood and blood products at acceptable level.(1) In some developed countries the number of voluntary blood donors is very high, like Switzerland where number of voluntary blood donors per 1,000 population figures is 113 and in Japan, it is 70 but in India it is still very low, 8 for every 1,000 population.<sup>3</sup> Against an annual demand of 12 million units, India is able to collect only 9 million units of which 70% is from voluntary blood donors while the remaining 30% is from family/replacement donors. The Indian Red Cross Society has 166 blood banks all over the country, where the voluntary blood donation is 90%. At the Model blood bank in National HQ of the IRCS, more than 90% of donations are by voluntary blood donors. However, we still have a long way to go as the need today is also for safe blood.<sup>3</sup>The blood centres find it difficult to recruit new donors and to retain them for arranging a regular blood supply for needy people.A study on the knowledge, attitude and the practice of the donors may help to design programme to improve voluntary blood donation. The objective of the study was to determine knowledge, attitude and the practice of donors in a voluntary blood donation camp.

## II. Material And Methods

It was a descriptive cross sectional study done in a voluntary blood donation camp at Mullick Bazar, Kolkata which was selected purposively. The study was conducted in April, 2017 among the blood donors who gave informed consent were included. Total enumeration was done. Permission was taken from the organisers of the blood donation camp after explaining to them the purpose of the study. The donors were interviewed after blood donation, during resting and refreshment by a predesigned pretested structured questionnaire.

## III. Results

110 blood donors donated blood. All of them gave informed consent. Only 3.6% of the donors were female. Majority of donors were in age group 18-25 years (54.5%), 72.7% were graduate and only 27.3% were BPL. Majority (72.7%) were donating blood for first time. Only 27.3% had donated previously.

**Table 1.** Socio-demographic determinants of blood donors (N=110).

	Variable	No. of donors	Percentage
Gender	Male	106	96.4
	Female	4	3.6
Age in years	18-25	60	54.5
	26-35	30	27.3
	36-45	10	9.1
	46-55	10	9.1
Education	Graduate	80	72.7
	High school	13	11.8
	Primary	7	6.4
	Illiterate	10	9.1
Socioeconomic status	BPL	30	27.3
	NON-BPL	80	72.7

**Table 2.** Knowledge about blood donation. (N=110)

	Variables	No. of donors	Percentage
Knowledge about donation intervals	Monthly	5	4.5
	Quarterly	13	11.8
	Half yearly	7	6.4
	Annually	20	18.2
	Don't know	65	59.1
Minimum age to start blood donation	18years	50	45.5
	Don't know	60	54.5
Maximum age of blood donation	65 years	11	10.0
	Don't know	99	90.0
Can women donate blood	Yes	80	72.7
	No	30	27.3
Own Blood group	Known	40	36.4
	Unknown	70	63.6
Contraindications to blood donation			
	Anaemia		
	Yes	80	72.7
	No	5	9.1
	Don't know	25	18.2
HIV			
	Yes	75	68.2
	No	0	
	Don't know	35	31.8
Hepatitis B/C			
	Yes	23	20.9
	No	4	3.6
	Don't know	83	75.5

In the present study it is seen that only 11.8% of donors know that blood can be donated quarterly. Out of the total donors, 59.1% do not have any idea about interval between blood donation, others (29.1%) have wrong knowledge, both are deterrent to successful blood donation.

In the present study it was seen that 72.7% of donors knew that females can donate blood, but only 3.6% of donors were female.

31.8% and 75.5% did not have idea that blood donation is contraindicated in HIV and hepatitis B and C respectively. This might imply serious threat of spread of transfusion transmitted diseases (TTD).

**Table 3.** Table showing factors motivating blood donation (N=110).

Variables	No. of donors	Percentage
Saving lives	66	60
Good gifts	18	16.4
By force of organisers	15	13.6
When approached personally	11	10

In the present study it is seen that majority (60%) of donors donated to save lives, but 16.4% and 13.6% donated for greed of good gifts and under force of organisers respectively. Both these are against principles of voluntary blood donation.

**Table 4.** Multiple response table showing reasons for not donating blood previously. (N= 80)

Reasons	No. of donors	Percentage
Fear of pain	71	88.7
Weakness	57	71.3
There are others to donate	43	53.8
No good gifts	34	42.5

In the present study it is seen that 88.7% of first time donors did not donate blood previously for fear of pain while blood donation, 71.3% cited their physical weakness and 53.8% thought there are others to donate blood, which shows lack of fellow feelings.

A large number of donors (42.5%) did not donate previously as there were no good gifts, which is a dangerous trend

**Table 5.** Multiple response table showing when the donor plans to donate in future (N= 110)

Reasons	No. of donors	Percentage
When good gift will be given	70	63.7
When someone known requires	59	53.6
After 3 months	10	9.1
Not sure	39	36.5

The above table shows that majority donors (63.7%) plan to donate when there is a good gift, which is deterrent to principles of voluntary blood donation.

Only 9.1% planned to donate after 3 months

#### IV. Discussion

Among 110 blood donors, only 3.6% of the donors were female. In another study by Uma S. et al among voluntary blood donors in Chennai female donors were 7.0%.<sup>4</sup> Female donors were found to be very few in number as compared to males, which was similar to the findings of a study which was done by Gillespie et al.<sup>5</sup> the reason for low turnout of females may be fear of pain, cultural taboos which prefer female to remain indoors.

In our study, the donor population was characterized by increased numbers of young donors (54.5%) who were in the age group of 18-25 years, which was similar to the findings of the studies which were done by Uma S. et al<sup>4</sup>, Allain et al.,<sup>7</sup> and Hinrich et al.<sup>8</sup> In contrast, Sampath et al., showed that 48.4% of the donors were in the age group of 26-50 years.<sup>9</sup> this showed that college students and youths formed the main donors.

In the present study it is seen that majority (72.7%) were donating blood for first time. Only 27.3% had donated previously. In a similar study Uma S. et al found that 46.1% were first time donors.<sup>4</sup> This is in tune to the finding that majority of donors were young in age group 18-25 years.

First time donors are important for the recruitment strategy, their high dropout rates emphasises the need to address the factors which are related to the retention of the donors. It is worthwhile to point out that all blood donors should be oriented about blood donation prior to donating blood. This is important because it enables the donor to understand why he was donating blood and to what uses it would be put. A well informed donor is more likely to be a repeat donor than an uninformed one. Informed donors are also ready to self-exclude which is very important step to prevent TTD. In the present study it is seen that majority (60%) of donors donated to save lives, but 16.4% and 13.6% donated for greed of good gifts and under force of organisers respectively. Both these are against principles of voluntary blood donation. In contrast study by Uma S. et al the general opinion of the blood donors (57.5%) was that creating an opportunity for blood donation would play an important role in motivating them to donate blood. In the present study it is seen that 88.7% of first time donors did not donate blood previously for fear of pain while blood donation which were similar to the findings of a study by Uma S. et al (55%),<sup>4</sup> which were similar to the findings of a study which was done by Olaiya et al.<sup>10</sup> Skin anaesthesia by application of prilocaine or other anaesthetic applicants may be tried.

A large number of donors (42.5%) did not donate previously as there were no good gifts, which is a dangerous trend seen in the present study.

Many blood donation camps are organised where gifts of various kinds are given to allure the donors, which is absolutely against the spirit of blood donation. A temporary increase in blood donation may be noted, but it will be followed by decline as expectations of donors will increase. It also brings unfit donors to the camp and may result in increase in TTD.

In the present study, the organisers even forced some local vendors to donate blood to fulfil their desired aim of blood collection which is absolutely wrong.

#### V. Conclusion

Awareness should be generated among people about the importance of voluntary blood donation to save life. People should be explained that the process of blood donation is simple and no ill effects of blood donation on donors health. More female should be motivated to donate blood as very low percentage of donors are females. The process should be made as painless as possible and that should be properly disseminated. The donors need to be motivated so that first time donors are retained. The camps organised needs to be regulated so that competition between clubs to give more gifts to allure donors is prevented. The organisers to be explained how important is to keep the blood donation camps voluntary to prevent TTD. With these steps we will be able to increase total blood collected and also safety of blood assured.

#### Acknowledgements

We acknowledge all the donors and organizers for their valuable support.

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Dr. Ronjoy Majumder "Knowledge, Attitude, and Practice of Voluntary Blood Donors in a Blood donation camp at Kolkata, West Bengal, India."IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 17, no. 6, 2018, pp 47-51.