



# Perceptions of Donors Regarding Blood Donation

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**Abstract:** Blood is a vital component of the human body. An adult on average contains 4.5 to 5.5 liters' of blood in the human body which is nearly 7% of total weight. A sufficient amount of blood is needed in the human body for its proper functioning. There is a fluctuating demand for blood for transfusion purposes. If the demand for blood is not met at the needed time, it could lead to medical complexities and even life losses. There is no substitute for human blood. Demand for blood must be met to save lives, but there is also a waste of blood because of the perishable nature of blood. As voluntary donors are motivated by altruism rather than by financial or social pressure, they are more likely to meet the medical selection criteria for safe donors, disclose any known possibility of risk exposure, and donate blood regularly and at regular intervals. This study is about analyzing the perception of volunteer donors towards blood donation camps and a survey was conducted with the General public at different places to identify the perception towards blood donation and what motivates or demotivates them to donate blood.

**Key Words:** Perception, Donors, blood, donation, medical

Access to safe blood is a key component of effective health care and voluntary donors are the basis of a safe blood supply. Developed countries with well-structured health systems and blood transfusion services based on voluntary blood donation are generally able to meet the demand for blood and blood products. Guidelines have reported a significantly lower prevalence of markers of transfusion-transmissible infections among voluntary donors than among other types of donors, with the lowest rates being found among regular donors. As voluntary donors are motivated by altruism rather than by financial or social pressure, they are more likely to meet the medical selection criteria for safe donors, disclose any known possibility of risk exposure, and donate blood regularly and at regular intervals. However, many people in developing countries are faced with ignorance, misperceptions, and fears about the blood donation process, which results in a limited number of voluntary donors. Such countries are challenged to find creative recruitment methods to combat misconceptions about blood donation and to motivate the public to donate.

It is ironic that despite being a nation with a population of more than one billion and an annual requirement of 8.5 million units of blood, India is able to collect only 4.4 million units of which only about 52% are from voluntary blood donors.

At present, the source of donated blood is a combination of voluntary donors, replacement donors, and a number of professional donors, although professional blood donation is forbidden by law. To sustain self-sufficiency, ensure safety, and match the ever-increasing clinical demand for various blood components, continuous efforts are required to ensure that donor recruitment campaigns are based on donor inputs. In this context, studies have emerged from both developed and developing countries.

It has been seen that lack of knowledge, fear, facilities, convenience, and the quality of service are common factors in people's decisions on whether to donate blood repeatedly on a voluntary basis. Indeed, understanding blood donors' motivations is crucial to improving the effectiveness of donor recruitment and retention programs. This information would be helpful for tailoring targeted programs and campaigns more precisely in the future in order to recruit more people as regular, non-remunerated, voluntary donors.

Countries across the world are now facing the problem of blood scarcity. To meet the increasing demand for blood, all countries have prioritized efforts to increase the supply of blood. India needs 12 million units of blood each year (NACO, 2016). With a population of more than 1.25 billion people, India is not able to find its required demand for blood. A study was done to find the factors prevailing among donor and non-donor populations toward blood donation.

## **OBJECTIVE OF THE STUDY**

To assess the knowledge, attitude, and practices regarding voluntary blood donation among individuals aged 18-60 years in the capital of India and to identify the factors associated with blood donation.

## **REVIEW OF LITERATURE**

Donating blood is an action which can be considered as a pro-social activity. Different perspectives to classify the existing manuscripts on inventory and supply chain management of blood products were done through a detailed literature review paper. An efficient blood banking system will help to ensure the safe, cheap, and timed availability of blood. To increase the frequency of donation incentives can be used as an effective strategy.

Incentives can encourage individuals with pro-social or altruistic behavior to donate blood. Different individuals have different motivators to participate in social causes; some incentives like money may backfire for a few. Non-cash incentives might increase the possibility of increasing participation in social causes. Incentives like recognitions or awards which can help to increase the social status, social recognition, or self-esteem of individuals can work as a motivator to donate blood. Giving non-monetary incentives than monetary incentives will help to increase pro-social behavior. Incentives given as rewards for pro-social activity should be intrinsic to nature else the reward might destroy the motivator for that activity.

People are reluctant to be involved in social causes if incentives are monetary but non-monetary incentives

can help to increase involvement in social causes. Symbolic rewards, non-monetary incentives, or a chance to get a paid leave of absence from work can have a positive impact on blood donation. First-time donors are largely influenced by friends and media appeal. Altruism, Social responsibility, and influence from friends are general motivators for blood donation. Laziness and fear of needles are factors that deter people from donating blood. To retain blood donors, they should be informed well and the sense of being a blood donor should also be strengthened. Donor retention can have a direct negative effect due to fear of blood being drawn but efforts need to be taken to reduce this fear and it will help to increase donor loyalty. Communicating the information and providing support from the blood donation organization is needed to make youth more involved in blood donation activities.

A study conducted in India among paid and non-paid donors to move towards voluntary donation brings out an interesting inference. Most of the paid donors wanted a monetary incentive for donating blood whereas non-paid donors wanted only appreciation of their act. Difficulty in accessing blood donation center, lack of time, and thought of donation not crossing the mind negatively affects Donors. Access to donation sites through mobile caravans, a day off from work, and gifts act as motivating factors. Many studies based on a few variables affecting blood donations were done. A meta-analysis of the past studies was done and a unified taxonomy of blood donation motivators and deterrents was found. The study found that the convenience of The collection site, pro-social motivation, personal values, reputation of the collection agency, the perceived need for donation, indirect reciprocity, intrinsic motivation, marketing communications, incentives, and social norms act as blood donation motivators. The study found low self-efficacy, low involvement, inconvenience, lack of marketing, communications, ineffective incentives, and lack of knowledge, negative service experience, fear, negative attitude, and personal values as demotivating factors. India's need for blood is around 12 million. Blood donation by 1% of the population can meet India's need for blood. "Statistics show that there are 234 million major operations in India, 63 million trauma-induced surgeries, 31 million cancer-related procedures and 10 million pregnancy related complications which require blood transfusions" (TOI, 2014). Percentage of voluntary blood donors in India is 80.5%. India has a supply of 6.82 million (NACO, 2016). Blood mobile can be useful to find a stable supply of blood products and blood. Availability of such blood mobiles can help in better and quick response. It can be used to reach donors who have issues in accessing convenient blood donation site and have time constraints. Efficiency of blood mobiles can be increased by using shuttle vehicles. Third phase of NACO (National AIDS Control Programme) funds mobile blood collection centre in India. Due to voluntary blood donation programmes, number of voluntary blood donors has been increasing in India but there is a need to look into other options like apheresis donors and rare blood group donors.

## RESEARCH METHODOLOGY

Primary data was collected through an online questionnaire. Data was collected among active blood donors, in-frequent blood donors, and non-donors. Data have been collected from a total of 150 respondents. A



stratified data sampling approach was used to collect data. Strata were divided on the basis of frequency of donation. i.e.

- People who donate blood 3 or 4 times a year
- People who donate blood 1 or 2 times a year
- People who donate blood once in a few years
- Non-Donors: people who have never donated
- The blood donation patterns of respondents
- To find the factors that negatively affect people from participating in blood donation programs
- To find the factors that positively motivate people to participate in blood donation programs

In this report questionnaire research methodology has been used on the basis of data collected.

**Area of Study:** New Delhi, Delhi.

### **LIMITATIONS OF THE STUDY**

In the literature review, it was found out that WHO in 2010 reported that India needs 12 million blood units each year. It was the last official report on India's blood donation needs. In 7 years, the scenario would have changed completely. So India's exact blood donation need has to be studied. From the 65 factors identified by Timothy Colin Bednall, 2011 for the study most of the factors were used, and predominant factors among groups based on the frequency of blood donation were found out. Further study can be done on these predominant factors and concentrating on each group.

Some limitations of this study ought to be addressed.

1. Firstly, the sample size could have been larger if we had access to a larger number of people.
2. Secondly, it would have been more desirable if we could get hold of people from a diversified age group. It would have been more interesting to know more about their thoughts on Blood Donation.
3. Thirdly, this research could have included a more diversified range of variables to analyze the same topic from a different perspective.

### **WHO IS ELIGIBLE TO DONATE BLOOD?**

Any healthy adult, both male and female, can donate blood. Men can donate safely once in every three months while women can donate every four months. Good health of the donor must be fully ensured. The universally accepted criteria for donor selection are:

- Age between 18 and 60 years
- Haemoglobin - not less than 12.5 g/dL
- Pulse - between 50 and 100/minute with no irregularities

- Blood Pressure -Systolic 100-180 mm Hg and Diastolic 50 - 100 mm Hg
- Temperature - Normal (oral temperature not exceeding 37.50 C)
- Body weight - not less than 45 Kg
- Health conditions: The donor should be in a healthy state of mind and body. They should fulfil the following criteria:
  1. Past one year - not been treated for Rabies or received Hepatitis B immune globulin.
  2. Past six months - not had a tattoo, ear or skin piercing or acupuncture, not received blood or blood products, no serious illness or major surgery, no contact with a person with hepatitis or yellow jaundice.
  3. Past three months - not donated blood or been treated for Malaria.
  4. Past one month - had any immunizations.
  5. Past 48 hours - taken any antibiotics or any other medications (Allopathic or Ayurveda or Sidha or Homeo).
  6. Past 24 hours - taken alcoholic beverages.
  7. Past 72 hours - had dental work or taken Aspirin.
  8. Present - not suffering from cough, influenza or sore throat, common cold.
  9. Women should not be pregnant or breast feeding her child.
  10. Women donor should not donate during her menstrual cycles.
  11. Free from Diabetes, not suffering from chest pain, heart disease or high BP, cancer, bloodclotting problem or blood disease, unexplained fever, weight loss, fatigue, night sweats, enlarged lymph nodes in armpits, neck or groin, white patches in the mouth etc.
  12. Ever had TB, bronchial asthma or allergic disorder, liver disease, kidney disease, fits or fainting, blue or purple spots on the skin or mucous membranes, received human pituitary - growth hormones etc.
  13. To find out the eligibility of the blood donors and to rule out any contra indication for blood donation all the donors will be elaborately interrogated for the history and the incidence of the specific ailments by a planned questionnaire. Only after satisfactorily fulfilling the laid down basic criteria, the blood donors will be selected.

## **INCENTIVE & ITS ROLE IN BLOOD DONATION**

If an incentive fulfils a person's basic needs, this is viewed as payment. Incentives should not have a monetary value. Examples of acceptable incentives depending on the circumstances are:

- Health screening
- Promotional campaign items e.g. T-shirts, meal vouchers, entertainment passes, etc.
- Recognition items e.g. certificates, pins, medals, badges, pens, etc.
- Free refreshments
- Time off work

## **VOLUNTARY BLOOD DONATION PROGRAMME**

The programme is to be implemented by Blood Banks, State Blood Transfusion Councils and recognised Voluntary Blood Donor Organisations, IRCS, CBOs, NGOs as per the following broad parameters.

### **1. Need Assessment**

In India, out of a total population of about 1000 million, the gap between demand and supply can be bridged by carrying out a proper assessment so that the demand can be met through planned donor recruitment and planned production of blood components and plasma derivatives.

### **2. Education**

- a. There should be planned educational programs to create awareness amongst the general public so as to ensure a regular supply of good quality blood without having to experience seasonal shortages.
- b. The donor education and information material, donor questionnaire and donor consent forms should be prepared in simple language and translated for use in local areas.
- c. By holding symposia, seminars, talks, discussions, get-togethers and street corner meetings at regular intervals.

### **3. Awareness campaigns for the people**

- a. Education programmes in schools where a community of future blood donors could be created.
- b. Short-term training courses for donor motivators, social activists, trainers, blood bank personnel and volunteers who have an aptitude to serve the cause. National AIDS Control Organisation.

### **4. Donor Motivation**

The underlying principle of donor motivation is to make the voluntary blood donor feel important and needed. It should aim at creating general awareness and to imbibe essence of firm determination in the minds of the potential donors. Any hesitance on the part of the donor will have to be tackled skillfully. The motivation of donors should be carried out as follows:

- a. By displaying attractive posters and hoardings at prominent places.
- b. By holding competitive contests and public exhibitions at Educational Institutions, Industrial and Commercial Houses, Social and cultural organizations, Medical Institutions, Women's organizations, Fan groups (Film artists or Sportsmen), and Government organizations.

### **5. Recognition**

Blood donors should be treated as a valuable resource and deserve courtesy and recognition. The policy, therefore, should aim at rewarding and honoring donors and donor organizations through awards, certificates, badges, and trophies.

## 6. Media

Mass media approach for raising the awareness of the people and sensitizing them towards their participation is the most effective way to mobilize voluntary blood donation. All channels of media, therefore, have to be utilized fully through a regular and sustained publicity campaign with a professional approach.

## 7. Database of Donors

- a. To maintain a detailed database of names, addresses, and contact numbers of blood donor organizations and also a database of blood donors for ready and easy access at the time of need.
- b. To network between the states so as to make data on blood donors available to the State Governments and donor organizations.

## 8. Interaction and sharing of experiences

All efforts should be made to facilitate blood donor organizations and blood donors to interact and share experiences by holding conferences, workshops, seminars, consultative meetings, colloquiums etc. These would help in bringing the organizations together and sharing information and experience in related areas.

## 9. Publications

- a. The State Blood Transfusion Council should bring out a quarterly News Bulletin (bulletins in different regional languages) for wide circulation.
- b. Regular publication of annual, six-monthly, and quarterly reports should be brought out and distributed for extensive publicity purposes by NACO/ SACS.
- c. Publication of working manuals for voluntary workers, guide books for blood bank associates, and for teaching personnel in adequate quantities for circulation

## 10. Policy regarding legislation and regulations

Regulations governing blood transfusion services should encompass the infrastructure facilities including manpower, equipment, space, and testing as well as donor selection procedures. The regulations must be in line with the National Blood Policy.

## 11. Donor Organisers

Individuals involved in organizing blood donation campaigns should be provided adequate training in communication skills and motivation. Office infrastructure, telephone, vehicle, and staff are essential to make them effective. All Blood Bank staff should be properly and smartly dressed, polite, sympathetic, and trained in public relations.



## Role of Voluntary Blood Donor Organization

### A. The importance of a voluntary blood donor organization

An ideal model for the foundation of a safe blood supply is a committed group of healthy, altruistic blood donors who have been recruited by a well-organized and dynamic blood donor organization. The goal of securing a sufficient number of voluntary, non-remunerated blood donors for a regular and safe supply of blood has not yet been achieved. A blood donor organization can be critical in ensuring that there is a sufficient blood supply. This Fact Sheet outlines how to set up and administer such an organization in your community. Who should be involved? A few highly enthusiastic volunteers should be found, preferably at the local level, and should be identified to form a motivational body. The volunteers should be supported by an adequate budget that will cover logistical expenses and also pay for outreach campaigns.

### B. The role of volunteers within a blood donor organization should include:

- Maintaining close contact with local blood centers to ascertain the need for donors.
- Urging lawmakers to enact legislation, where necessary, to prohibit the practice of paid or family replacement donations.
- Working closely with health authorities to establish the necessary guidelines for blood donation - for instance maintaining the anonymity of both donor and patient - and ensuring that blood centers are sufficiently modern and efficient.
- Experience shows it is difficult to retain donors if collection facilities are shoddy and blood center staff inefficient and badly trained.
- Enhancing donors - experience by greeting, guiding, and accompanying them throughout their donation experience.
- Helping educate current and potential blood donors about the crucial service they can provide by avoiding high-risk behavior.
- Urging other voluntary organizations - such as religious bodies, youth organizations, labor unions, and sports teams - to support and participate in the movement.
- Form partnerships with curriculum coordinators of schools and colleges so blood donor information becomes part of their educational programs.

### C. Creating a National Network

When a number of local donor organizations have been established, a national organization of voluntary, unpaid blood donors can be created. The national organization should have a board that would include a medical advisor, a coordinator of information activities, and a legal expert who can advise on legislative matters. The national donor organization should, at an early date, establish a comprehensive database of local blood donor organizations and seek funds "preferably from public sources" for the establishment of a national office. These funds would be used to facilitate:



- Participation in exchange visits and National Donor Federation meetings.
- The purchase of office equipment, computers, and a phone line with a permanent and easily recognized phone number.
- The production of press packets to target media and regular newsletters for public distribution.
- The purchase of software to create online campaign materials and recruitment tools.
- The development of a logo, T-shirts, and other recruitment material geared toward attracting new donors.
- Training seminars for new volunteers.

Developing a strong donor culture and efficient donor organizations may take years, considerable patience, and work. But the rewards of "a network of efficient blood donor organizations and a regular and safe blood supply" are well worth the effort.

#### **D. Strategies to encourage repeated blood donation**

The National Blood Transfusion Council along with State Blood Transfusion Councils with support from IRCS or NGOs has to carry out extensive work for donor motivation and retention. Below are some of the findings and methods that can help recruit and retain blood donors.

- Session availability encourages donations.
- Donor frequency and donor retention are largely determined by session availability.
- All donors should be processed promptly. If people are forced to wait for unacceptable periods of time they perceive the staff to be inefficient. If beds are empty while people are waiting to donate, negative impressions tend to be reinforced.
- Good treatment of donors promotes retention: donors must be treated as individuals. The manner in which thanks, rewards, and recognition are offered has an effect on retention, as does giving more bedside care to first-time donors.
- The aura of a professional and organized "medical" environment is also essential to maintain motivation. Donors tend to be put off if they have unpleasant experiences, such as failed puncture of the vein bruises, or double pricks.
- Continued reinforcement keeps donors involved: Donors should constantly be made to feel good about belonging to a select group of people. They must be educated about the need for blood, as the knowledge that blood donation is essential to prevent deaths is a strong motivation.
- Written communication can be used to inform and educate, but must appear in jargon-free language and not give the perception of wastage of blood through over-collection Repeat blood donors perceive that there is a constant need for blood and approach blood donation with feelings of duty, responsibility and pride. They tend to feel that the service they receive from staff is professional, caring, and appreciative, and are more willing to forgive or ignore any negative experiences they might have had.

## Feedback from Respondents

Total No. of Respondents: - 150

- Most respondents are in the age group of 20-30 i.e. 105 persons out of 150(70%).
- The percentage of male respondents is higher as compared to female respondents
- 114 respondents are students which is about 76% of the respondent.
- Most of the respondents' Blood Group is B+ which is about 45(30%) followed by O+.
- 90 respondents have donated blood for the first time i.e. 60%.
- 128 respondents do not have discomfort in blood donation i.e. 85.3%.
- Most of the respondents feel fit to donate the blood. Their health allowed them to donate blood
- Of the total respondents i.e. 24 people are having unexplained weight loss and are denied to donate blood
- Out of the responses collected only 48 respondents went for Tattooing, Ear Piercing, Dental Extraction
- Most of the respondents (47.8% ) are affected with allergic diseases and diabetic patients
- 56.5% (i.e. 78 people) have taken antibiotics in the last 72 hours.
- 86% have not been exposed to someone with suspected or confirmed COVID-19 in the last 14 days.
- 88% of respondents have not been infected by COVID-19 in the past 28 days.
- 98% of respondents are aware of the blood donation guidelines.

## CONCLUSION

This research was a study on the Donor's perception towards blood donation for a noble cause. Knowledge about their own blood group was found to be significantly associated with age, educational status, and socioeconomic status. TV/Radio/Internet was found to be the most common source and showed a positive attitude toward donation of blood. It is important to create opportunities regarding blood donation, but it is equally important to spread awareness of VBD. Awareness or knowledge can only change behavior if the facilities for adopting such practices are readily available. The availability of "blood donors" at every blood bank containing the details of prospective blood donors could also go a long way. Non-monetary incentives for blood donation such as appreciation certificates may lead to the achievement of the goal of 100% VNRBD. The voluntary donation system is by far the best, and it needs to be strengthened. Thus, the study of the various factors that could change the perception and awareness about blood donation among the general population may come out to be useful for the successful implementation of the blood donation program in the state, especially in improving the VBD system. India is a multicultural and multilingual country. Any short-term solution may not help us to reach the goal of universal VBD in India in the near future.

In the above study, most of the donors were from the age group of 20-30 years old. Males were more motivated and aware of blood donation. Most of the respondents were students who were young and educated and knew

about the value of everyone's life. B+ is the most common blood group in the donors. 98% of donors were aware of the blood donation guidelines.

## RECOMMENDATIONS

1. According to the present study, the following recommendations such as Health education, the role of health care institutions, and its students in VBD are pivotal.
2. Information, education, and communication activities should be increased using mass media such as TV, Radio, and the Internet, and regular continuing medical education and seminars should be conducted.
3. It must also focus on removing the myths and misconceptions about blood donation and keep people well-informed about the importance of saving lives through blood donation.
4. Provision of better facilities: The general public must be encouraged and motivated to donate blood. Making people aware of recent findings such as donation is associated with a lower risk of cardiovascular events, reduces insulin resistance increases insulin sensitivity, and thus improves the glucose balance in the body.
5. There should be the provision of incentives such as screening of health; T-shirts, meal vouchers, and entertainment passes; and certificates, pins, medals, badges, and pens.

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