

# Research in Pharmacy and Health Sciences

Research Article

## Knowledge, Attitudes and Perception of Voluntary and Replacement Blood Donors regarding Organ Donation

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**Abstract:**

**Objective:** The objective of this study was to determine the knowledge, attitude and perception about organ donation among blood donors in Dakshin Kannada district of Karnataka State, India. **Methods:** A cross sectional study was conducted at blood donation camps and at blood banks where a total of 330 blood donors (both voluntary and replacement donors) were interviewed with the help of structured questionnaire. Data was entered into Microsoft excel sheet and analyzed. The statistical tests used were descriptive statistics like frequency and percentages. **Results:** 54.24% of donors were young adults, belonged to the age group of 26-40 years. Donors were predominantly male (79.09%). All the study subjects were of the opinion that pledging of organs is a noble act, with a majority (88.48%) expressing a desire to pledge their body organs after death. **Conclusion:** Interactive awareness sessions on organ donation should be organized at blood donation camps and at social events to provide proper information regarding body donation after death and the legal procedures involved so that it can aid in modern medical care.

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Email: demi.elmo@gmail.com**Funding:** Nil**Competing Interests:** Nil**Keywords:** Blood donation, Organ donation, brain death, altruism.**INTRODUCTION:**

Blood donation is an imperative concern for the society, as blood is a product than cannot be produced artificially. It is life saving for patients after trauma, during surgery, for patients with chronic bleeding disorders, congenital/acquired hematological conditions and malignancies.<sup>[1]</sup> Most voluntary donors are aware of this and form the mainstay of a safe ample supply of blood at blood banks.<sup>[2]</sup> While getting voluntary *blood* donors is relatively easy, it is not so for organ donation services.

Organs for donation are obtained from both living contributors as well as cadavers. However in regions like South-East Asia, nearly all organ donations come from living donors.<sup>[3]</sup>

With advances in medical modalities, transplantation is the most effective form of replacement treatment, provided a suitable organ donor is available and the patient is fit enough to undergo the procedure. This is especially relevant as chronic non-communicable diseases account for higher morbidity and mortality than communicable diseases nowadays. For example, the prevalence of chronic kidney disease has been reported to be between 0.78% and 1.39% of the population<sup>[4]</sup> Besides inadequate finance, any organ transplant program in India faces many problems—ignorance, lack of organ donors and proper medical

facilities, out of which, lack of an appropriate organ donor is the main problem.

A significant proportion of the blood donors are regular donors. This reflects the knowledge and sense of responsibility in these individuals. A study on the knowledge, attitude and the practice of *such* individuals towards organ donation may prove to be useful in the successful implementation of the organ donation program, as these individuals most likely represent a responsible section of society. This study was done to find the level of the knowledge and attitude towards organ donation among voluntary blood donors, so that the common misconceptions regarding the procedure may be assessed and thus proper educational and motivational programs can be directed towards these individuals and also the public in general in future.

**OBJECTIVES:**

1. To assess the attitudes of blood donors to organ donation.
2. To analyze the common perceptions and the influence of socio-demographic factors among blood donors towards organ donation.

## MATERIALS AND METHODS:

This was a cross sectional study conducted at blood donation camps and at blood banks around the urban and rural field practice area of Father Muller Medical college, Mangalore, where a total of 330 blood donors (both voluntary and replacement donors) were interviewed with the help of pre-structured questionnaire, which was pre tested and validated for local setting. The purpose of the study was explained and a written informed consent was taken in a consent form from the participants willing to participate in the study.

After approval from ethical review committee, the principal investigator of the project explained the nature and purpose of the study to all the participants of the study and their written consent was taken. Data was collected through face to face interviews. A total of 330 blood donors were interviewed using a pre-tested, close-ended questionnaire comprising of two major parts: Part one was designed to obtain socio-demographic data. Part two comprised questions regarding the knowledge, attitude and perceptions of blood donors regarding organ donation. To avoid non response bias, the 15-item questionnaire was designed in such a way that it was not too long and didn't take too much time to complete.

The data was entered using Microsoft Excel and analyzed. Descriptive statistics was used to determine mean and standard deviation for continuous variables like age while frequency and percentage were used for qualitative variables (gender, religion, education, marital status etc).

## RESULTS

A total of 330 interviews were performed during the data collection period. Table 1 shows socio-demographic characteristics of the study participants. Most of our study subjects belonged to the age group of 26-40 years (54.24%). Most of our participants were young adults with a mean age of  $28.8 \pm 6.5$  years. Majority of respondents were males (79.09%) and single (63.03%). All the participants were questioned to assess their knowledge about various aspects of organ donation and their willingness towards the same. 262 (79.39%) of our subjects were Hindus, forming a majority compared to Christians (16.36%) and Muslims (8.18%).

A majority of our study population were graduates (40.6%) with the least qualification being primary education among only 7 individuals (2.12%). Out of the 330 subjects in our study 299 (90.6%) were voluntary blood donors with the smaller portion (8.18%) being replacement donors.

Among these, 116 (35.15%) were first-time donors, 214(58.82%) had donated blood multiple times in the past. Frequent, regular donors comprised 28.48% of the population who donated at intervals of 6 months, 1 year or at camps whenever they had the opportunity.

Among the multiple responses obtained from each subject, the most common reason cited for willingness to donate blood was that it was considered a noble act (80.28%). Other reasons cited are included in Table 1.

Demographic categories	Characteristics	N (%)
<b>Age group</b>	18-25 yrs	124(37.57)
	26-40 yrs	179 (54.24)
	41-50 yrs	27(8.18)
<b>Educational status</b>	Primary	7 (2.12)
	Secondary	40 (12.12)
	PUC	93 (28.18)
	Degree	134 (40.6)
	Diploma	55 (16.66)
	Post graduation	1 (0.3)
<b>Frequency of donation</b>	First time donors	116 (35.15)
	2-10 times	115 (34.84)
	More than 10 times	5 (1.5)
	Once in 6 months	31 (9.39)
	Once a year	30 (3.09)
	Regularly at camps	33 (10)
<b>Reason for donation</b>	Noble cause	80.28%
	Saves lives	12.41%
	Blood donation is good for one's health	4.23%
	No loss to self, blood gets replaced	5.74%
	To get information about my health status	0.3%
	Accompanying friends	0.3%

### Knowledge about organ donation:

It was seen in our study that all the subjects were aware about the concept and types of organ donation either through media (59.67%), talks in colleges or at other social awareness events (46.93%) and 3.63% through friends or social media.

### Attitudes towards blood donation:

Towards family: Majority of the subjects showed a positive attitude towards the donation of organs to immediate family

(70.6%). Among the remaining, 24.84% were unsure as they had never considered the idea of organ donation and 4.54% were completely against the idea of organ donation even to family members.

**Towards strangers:** In sharp contrast, only 24.24% of the subjects expressed willingness for organ donation to a non-family member. Among the remaining, 41.81% were unsure and 33.93% were completely against the idea.

Table 2 shows the reasons behind unwillingness to donate organs.

**Table 2: Reasons stated by blood donors for unwillingness for organ donation**

Reasons for unwillingness for organ donation	%
Family may not allow	39.61%
I'm too young for this	33.26%
Fear of organ harvesting before/after death	29.93%
Not thought about	14.8%
'I-don't-care-about-others' attitude	12.98%
Loss to health	1.21%
Not interested in such a service	1.5%
Organs could get wasted	0.9%
Not wanting to get cut into pieces	0.9%

#### Attitude towards pledging of body organs after death:

All the study subjects were of the opinion that pledging of organs is a noble act, with a majority (88.48%) expressing a desire to pledge their body organs after death and only a small fraction (4.84%) showing complete disinterest towards the concept out of which 1.51% claimed that an intact body was required even after death.

While none of the participants faced any barriers from their family towards *blood* donation, nearly 27.56% said they would face at least some type of hindrance from their family if they were to decide to pledge their organs.

4 of our subjects (1.21%) admitted that they would donate organs if they were offered money because it would firstly grant a satisfaction of promoting someone's health while simultaneously solving any financial constraints at hand.

#### In cases of life-saving/ emergency conditions:

When given a scenario of an emergency condition, more of our subjects said that they would donate an organ to a child in need than an adult (68.42% for children as compared to 57.27% for adults)

## DISCUSSION

In our study we found that compared to organ donation, willingness for blood donation came easier for many individuals. The most common reason cited for this was that blood donation is a noble act which causes no loss to self (when compared to organ donation) and yet provides the gratification of having saved someone's life.

It was seen in our study that all the subjects were aware about the concept and types of organ donation mainly through Television, social media, talks and other social awareness events but they had never considered implementing it themselves. A similar finding was also seen in a study done by Hu D et al <sup>[5]</sup> done in China.

When asked about their perceptions towards the same, majority of the subjects showed a positive attitude towards the donation of organs to immediate family than to strangers, and more so to a child than an adult especially in times of emergency.

All the study subjects were of the opinion that pledging of organs is a noble act, with a majority expressing a desire to strongly consider pledging their body organs after death. Religious beliefs and superstition factors were found to be completely non-existent among the study subjects which was in agreement with a study done by Webb G et al in England <sup>[6]</sup>.

Very few individuals in our study were completely against organ donation claiming that according to them an intact body was required even after death, while a study done in Greece by Symvoulakis EK et al <sup>[7]</sup> on health science students had contradictory findings in that, they had more individuals who wanted an intact body after death. In our study, the respondents claimed so because their family would want it that way, mostly due to *their* religious beliefs. A study done in Iran by Salmani Nadoushan M et al <sup>[8]</sup> said the most common cause of unwillingness to donate was to "honour the body".

While none of the participants faced any barriers from their family towards *blood* donation, a large proportion said they would face at least some type of hindrance from their family if they were to decide to pledge their organs because according to them, even though youngsters today are more open to such concepts, their families, which comprise the older conservative generation still fears even *discussing* such ideas due to their restrictive religious beliefs.

Only 4 of our study subjects admitted that they would donate organs if they were offered money because in addition to granting a satisfaction of promoting someone's health it would also simultaneously help solve any financial constraints at hand which brings up the question of whether incentives *do* make a difference or not?

## CONCLUSION

This study was conducted in order to obtain information and inputs from blood donors about organ donation which will be useful in implementing relevant organ donation strategies. This could probably be practiced by providing brochures at the blood banks, or through talks and educational programs regarding the same. Organ donation decision making has to be motivated in order to increase organ pledging and its efficiency. This study among the blood donors, who are a very budding and available source of voluntary non-remunerated (as against promotion through incentives) and safe blood, could have an overall impact on society in ensuring sufficient steps for involvement of their families and friends in providing opportunities for pledging their bodies for a noble cause. In conclusion, the information received in this study highlights the need for appropriate health promotional campaigns for organ donation. Donor recruitment efforts should target groups less willing to donate and simultaneously seek to reinforce the positive behavior of willing groups.

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