

Research Article

# Knowledge, Attitude and Misconception Regarding Organ Donation among General Population

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## I N F O

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## A B S T R A C T

**Introduction:** Transplanting organs and tissues has become a crucial component of healthcare worldwide. Therefore, it has become imperative to increase public awareness of and attitudes regarding organ donation.

**Objectives:** (i) To ascertain the general understanding of the public regarding organ donation, (ii) To determine how the general public feels about organ donation, (iii) To determine the widespread misconceptions that discourage people from volunteering for organ donation.

**Methodology:** A descriptive cross-sectional questionnaire survey was designed for 100 participants from the general population in Kerala. **Results:** Overall, 97% of study participants knew something about organ donation and 97% of people expressed support for organ donation. The majority of participants were aware of the laws governing organ donation and its procedure. This study highlights the significance of increasing public knowledge to remove barriers and disbeliefs that keep people from volunteering for organ donation.

**Conclusion:** Knowledge and misconception were found to be interrelated with the general public's attitude towards their willingness to organ donation. Knowledge about the concept of brain death and transplant procedure may help in increasing the rate of willingness towards organ donation.

**Keywords:** Organ donation, Attitude, Knowledge, Misconception, Obstacles

## Introduction

Transplantation has become a preferred and final treatment for many end-stage diseases. A National Foundation for

Transplants report (2016) stated that one organ donation can save eight lives.<sup>1</sup> There are several diseases, according to the National Institute of Health (2016), like CKD, terminal lung disease, and heart failure that can only be treated

through transplantation. The Transplantation of Human Organs Act of 1994 of the Government of India makes organ donation lawful in India.<sup>2,3</sup> The field of organ transplantation, including the transplantation of crucial organs, has undergone a significant transformation due to advances in modern medicine.

However, a lot of individuals in India suffer or pass away as a result of insufficient donors. Organ shortage has become a health crisis due to high demand. The vast advantages of organ donation for recipients and their families are not widely known by the general public. Inadequate knowledge and misunderstanding about organ donation cause fear and mistrust in people's minds. The majority of those in need of transplants are young, thus helping someone like them by donating their organs will spare their entire family from a huge loss.<sup>4</sup>

In South India, a cross-sectional study of undergraduate medical students found that while 74% of them believed that organ donation was necessary to save others' lives, just 53% of them had a favourable opinion of it.<sup>5</sup> To enhance the frequency of organ donation, community awareness levels should be raised, social stigmas should be eliminated, and barriers to organ donation should be removed.<sup>6</sup>

In India, organ donation is uncommonly followed by brain death. According to the Government of India's Transplantation of Human Organs Act of 1994 (THOA),<sup>2,3</sup> brain death is "the stage at which all functions of the brain-stem have permanently and irreversibly ceased". In India, social, religious and cultural factors influence the attitude of the general population. Knowledge and attitude are the key factors that influence the rates of organ donation.<sup>7</sup> Therefore, it is essential to evaluate public opinion towards organ donation in terms of knowledge and attitude. Therefore we assessed the knowledge, attitude and misconception of the general population towards organ donation.

### Objectives

The main objectives of the study were to ascertain the general public's understanding of organ donation, determine how the general public feels about organ donation and the widespread misunderstanding that discourages people from volunteering for organ donation.

### Materials and Methods

A descriptive cross-sectional study was carried out among the general population of Kerala. The information was gathered by using self-selection sampling - a form of non-random purposive sampling from December 2020 to March 2021. In this method, the research subjects volunteered to take part in the research rather than being approached by the researcher. The researcher developed a semi-structured questionnaire which was divided into categories to assess knowledge, attitude, and misconception towards organ donation, which was e-mailed to the study participants in the form of Google Forms. The questionnaire was validated and a pilot study was conducted. By taking into account Kerala's high literacy rate and assuming that 50% of the general public is knowledgeable of organ donation, with a relative precision of 20%, the sample size for the study was calculated to be 100.

### Ethical Considerations

The researcher gave each participant a detailed explanation of the study's goals and methodology. By including a specific question in this regard, the respondents had the option of indicating whether they would be willing to participate in the survey. In the course of the study, participants were able to stop taking part at any time without facing any consequences. All of the data were anonymised using serial numbers in order to preserve confidentiality. Each and every piece of private data was safeguarded. The approval for the study was obtained from the Institutional Review Board.

The collected data were analysed using IBM SPSS 20.

### Results

#### Section I: Characteristics of the Sample

Table 1 shows that the majority of the samples, i.e. 66%, belonged to the age group of 20-30 years. Most of the samples, i.e. 77.2%, were female and only 22.8% were male. While considering religion, 66% were Christians, 27% were Hindus, 3% were Muslims, 3% belonged to other religions, and the least (1%) were not interested in revealing their religion. The educational status of the samples revealed that 60.4% were graduates and 27.8% were postgraduates. The occupational status indicates that 43% were employed in the private sector and 12% were government employed. Among the samples, 56% were unmarried and 85% were from nuclear families.

Table 1. Demographic Characteristics of the Participants

	Variables	Frequency	Percentage
Age (years)	20-30	66	66
	31-40	25	25
	41-50	9	9

Gender	Female	78	77.2
	Male	23	22.8
Religion	Hindu	27	27
	Christian	66	66
	Muslim	3	3
	Others	3	3
	Rather not say	1	1
Education	Secondary	3	3
	Higher secondary	9	8.9
	Graduate	61	60.4
	Postgraduate & above	28	27.8
Occupation	Government employed	12	12
	Private sector	43	43
	Student	25	25
	Unemployed	16	16
Marital status	Married	44	44
	Unmarried	56	56
Type of family	Nuclear	85	85
	Joint	15	15

### Section II: Knowledge of General Population regarding Organ Donation

The level of knowledge of the general population regarding organ donation shows that the majority, i.e. 97%, had good knowledge, 2% had average knowledge, and the least (1%) had poor knowledge (Figure 1).

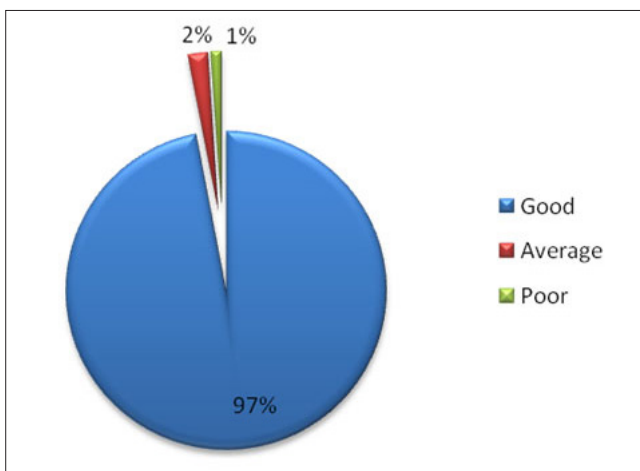


Figure 1. Knowledge of General Population regarding Organ Donation

### Section III: Attitude of General Population towards Organ Donation

The study revealed that 92% of participants had a favourable attitude, 4% had a neutral attitude, and 4% had an unfavourable attitude towards organ donation. (Figure 2).

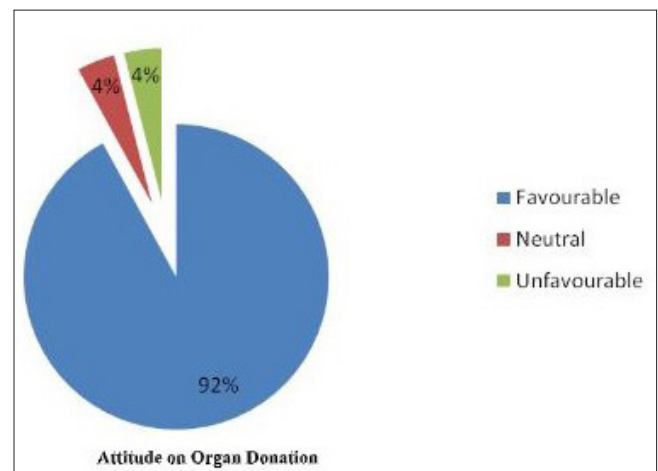


Figure 2. Attitude of General Population towards Organ Donation

**Table 2. Misconception regarding Organ Donation**

S. No.	Item	Yes (%)	No (%)
1.	A heart transplant can change one's mind.	7	93
2.	If your loved one is in a coma, does that mean they are brain dead?	24	76
3.	There is treatment available to reverse brain death.	16	84
4.	The organs from a female brain-dead donor cannot be transplanted into a male recipient.	74	26
5.	A person with alcoholism and smoking can donate organs after brain death if the organs are in good condition.	79	21
6.	Organ donation after brain death disfigures the dead body.	89	11
7.	Blood grouping is necessary to transplant an organ after brain death.	89	11
8.	A doctor can create brain death artificially and according to his will.	74	26
9.	The donated organs can be sold and misused by the hospital authority.	70	30
10.	The donated organs after brain death should be transplanted immediately/ as early as possible.	96	4

#### Section IV: Misconceptions regarding Organ Donation

The study revealed that 92% of participants had a favourable attitude and did not believe in misconceptions regarding organ donation, but there were some factors that may become barriers to organ donation such as organ donation causes disfiguring of the dead body (89%), and organs can be misused by the hospital authority (70%) (Table 2).

#### Discussion

According to this study, awareness and attitude about organ transplantation is good (97%) in the general population. This could be a result of awareness campaigns done by the media and various NGOs.

Regarding attitude towards organ donation, 92% of the participants expressed their willingness to donate organs. In spite of good knowledge and readiness for donation, there are some hindering factors that pull back a person from organ donation, such as perceived health risks and financial insecurity. These hindering forces must be tackled more carefully. Awareness campaigns are needed to increase the acceptability of organ donation. Organ-specific willingness (i.e., feasibility/ availability of each organ that can be donated) towards organ donation has to be assessed and there is a need for a structured awareness programme to improve and inculcate the culture or a favourable attitude regarding organ donation.

A cross-sectional study conducted in Central Saudi Arabia

showed that one-third of students were aware of organ donation cards, but had not signed them. The key cause for refusal of signing the card was their worry about side effects (51.8%). Nearly half of them thought that there are misconceptions about the Islamic perspective associated with organ donation.<sup>8</sup>

In a study conducted among commerce college students in Ahmadabad, 62.5% of students showed a positive attitude towards organ donation and 37.5% reported a negative attitude,<sup>9</sup> whereas a study conducted among nursing students in Poland showed a contradiction with 42% reporting an unfavourable attitude towards organ donation.<sup>10</sup>

A cross-sectional study conducted to assess the knowledge and attitude among 194 final-year medical students in Government Medical College, Trivandrum revealed that the majority (88.7%) of them had adequate knowledge regarding organ donation but it was not translated into their willingness for donation-both live and cadaveric. This reiterates the need for educational interventions for medical students.<sup>11</sup>

A descriptive cross-sectional study was conducted among the first 4 academic years of medical and nursing students (n = 620) to assess their knowledge, attitude and perception of organ donation. The results showed that half (46.9%) of the study participants knew the definition of brain and 29% knew about the existence of a law regarding organ donation.<sup>12</sup>

## Recommendations

There is a huge gap between the demand and supply of organs. It is not that there aren't enough organs to transplant. Every person who dies naturally or due to an accident is a potential donor. Still, there is a scarcity of donors. Public health attitudes to cadaveric organ donation and transplantation constitute a major public health problem since prior consent of the donor or their close relative at the time of death forms the basis for cadaveric organ donation. Hence a large-scale survey must be needed to find out the attitude and misconceptions of the general public towards organ donation.

## Conclusion

A majority of people had heard about organ donation in our study. In spite of good knowledge about organ donation, less than half were willing to donate. The unfavourable attitude towards organ donation was due to some factors that may become barriers to organ donation, such as organ donation may lead to disfiguring of the dead body, and organs can be misused by the hospital authority. Religious beliefs and lack of family support may be factors which were not measured in this study. The reasons for the unfavourable attitude should be looked into more carefully and awareness campaigns must be planned to increase the acceptability of organ donation even though, the majority of participants are aware of the legislation and the process of organ donation.

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**Conflicts of Interest:** None

## References

1. Health Resources & Services Administration [Internet]. Organ Donation Statistics; 2022 [cited 2021 May 30]. Available from: <https://www.organdonor.gov/learn/organ-donation-statistics>
2. Government of India [Internet]. The Transplantation of Human Organs Act, 1994. Act no. 42 of 1994; 2016 [cited 2021 Jan 24]. Available from: <http://main.mohfw.gov.in/sites/default/files/Act%201994.pdf>
3. Ministry of Health & Family Welfare [Internet]. National Organ Transplant Programme; [cited 2021 Jan 24]. Available from: [https://dghs.gov.in/content/1353\\_3\\_NationalOrganTransplantProgramme.aspx](https://dghs.gov.in/content/1353_3_NationalOrganTransplantProgramme.aspx)
4. Shimazono Y. The state of the international organ trade: a provisional picture based on integration of available information. *Bull World Health Organ.* 2007;85(12):955-62. [PubMed] [Google Scholar]
5. Sucharitha T, Siriki R, Dugyala RR, Mullai, Priyadarshini, Kavya, Roshini. Organ donation: awareness, attitudes and beliefs among undergraduate medical students in South India. *Natl J Res Community Med.* 2013;2(2).
6. Saha M, Hadiuzzaman KM, Faroque MO, Alam KS, Haque MA, Paul BK. Awareness about organ donation among school girls. *Mymensingh Med J* [Internet]. 2011 [cited 2016 Jul 1];20(2):287-91. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21522102> [PubMed] [Google Scholar]
7. Guleria K, Singh AK, Kumar B, Agrawal P, Agrawal S. Trends of organ donation and awareness in Ernakulam, Kerala. *BMC Proc.* 2012;6(Suppl 4):P48. [Google Scholar]
8. Almohsen SS, Alobaishy SM, Alghammas NI, Albulayhi SK, Alrashid SM, Aljamal RY, Alotaibi MM, Dandash K. Attitudes and beliefs on organ donation among students in a university in Central Saudi Arabia. *Saudi Med J.* 2016;37(5):591. [PubMed] [Google Scholar]
9. Shah R, Patel A, Ramanuj V, Solanki N. Knowledge and attitudes about organ donation among commerce college students. *Natl J Community Med.* 2015;6(4):533-7. [Google Scholar]
10. Mikla M, Rios A, Lopez-Navas A, Klimaszewska K, Krajewska-Kulak E, Martinez-Alarcon L, Ramis G, Ramirez P, Montesinos MJ. Organ donation: what are the opinions of nursing students at the University of Bialystok in Poland? *Transplant Proc.* 2016;48(7):2482-4. [PubMed] [Google Scholar]
11. Adithyan GS, Mariappan M, Nayana KB. A study on knowledge and attitude about organ donation among medical students in Kerala. *Indian J Transplant.* 2017;11:133-7. [Google Scholar]
12. Vincent BP, Kumar G, Parameswaran S, Kar SS. Knowledge, attitude, and perception on organ donation among undergraduate medical and nursing students at a tertiary care teaching hospital in the southern part of India: a cross-sectional study. *J Educ Health Promot.* 2019;8:161. [PubMed] [Google Scholar]