

ORIGINAL ARTICLE

Public Awareness and Willingness Toward Organ Donation: A Cross-Sectional Study from Kelambakkam, Tamil Nadu

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ABSTRACT

Background: Organ transplantation has transformed the management of end-stage organ failure, yet the number of available organs in India remains far below the clinical demand. There continues to be a mismatch between increasing public awareness and the relatively low rate of actual organ donation, which may be influenced by gaps in knowledge, sociocultural beliefs, and mistrust in the system.

Objectives: To evaluate awareness, knowledge, attitudes, and practices related to organ donation among adult patients attending a tertiary care hospital in Kelambakkam, Tamil Nadu, and to identify determinants of willingness to donate organs.

Methods: A descriptive, hospital-based cross-sectional study was carried out among 370 adults attending the outpatient, inpatient, and emergency services of Chettinad Hospital and Research Institute (CHRI). Information was obtained using a structured, pre-validated questionnaire. Data were summarised using descriptive statistics, and associations were examined using the Chi-square test, with $p < 0.05$ taken as statistically significant.

Results: Almost all participants (98.9%) had heard of organ donation, and 77.7% were aware of the concept of brain death. However, only 22.3% knew about the Transplantation of Human Organs and Tissues Act. Although most respondents expressed favourable attitudes towards organ donation, only 62.9% reported being willing to register as organ donors in future. Actual engagement in donation-related

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practices was low; 2.9% had formally registered as organ donors and 3.4% had discussed organ donation with family members. Misconceptions, concerns about misuse of organs, and poor understanding of legal procedures were commonly cited barriers.

Conclusion: The study highlights a wide gap between general awareness and actual practice regarding organ donation in this setting. Focused educational strategies that emphasise legal aspects, promote open family discussions, and strengthen trust in healthcare services are required to enhance organ donation rates in this region.

KEYWORDS

• Organ donation • Awareness • Knowledge • Attitude • Practice • THOA
• Brain death

INTRODUCTION

Organ transplantation has markedly improved survival and quality of life for patients with irreversible organ failure and is now recognised as a major achievement of modern medicine. Nevertheless, a persistent worldwide challenge is the shortage of transplantable organs relative to the number of patients in need. Developed countries such as Spain and the United States report deceased organ donation rates of more than 30–40 per million population, whereas many developing countries continue to have substantially lower rates. India, in particular, has a deceased organ donation rate estimated between 0.05 and 0.52 per million population, reflecting a substantial deficit in organ procurement systems.^{1,7} The Transplantation of Human Organs and Tissues Act (THOTA) provides the statutory framework for organ donation and transplantation in India.⁶

Multiple factors have been implicated in this shortfall, including limited public understanding, confusion about the concept of brain death, religious and cultural reservations and poor familiarity with the legal framework governing organ donation. Indian studies have repeatedly shown that although a large proportion of the population has heard of organ donation, detailed knowledge and firm willingness to donate remain inadequate. A study from Puducherry, for example, reported that 88% of participants were aware of organ donation, but many were unclear about eligibility criteria and legal procedures.¹ Similarly, a tertiary care study from South India documented a distinct difference between very favourable attitudes (95%) and actual willingness to donate (51%).² Investigations carried out in rural areas of Tamil Nadu have also highlighted poor understanding of the legislation and very low rates of organ

pledging.³ Even among those who access healthcare facilities, uncertainties and fears related to organ misuse and possible medical negligence continue to be reported.⁴

Kelambakkam represents a semiurban area with a heterogeneous population, and Chettinad Hospital and Research Institute (CHRI) caters to patients from varied sociodemographic backgrounds. However, there is a paucity of data specifically describing public awareness and behaviour related to organ donation in this region. Generating local evidence on knowledge, attitudes and practices (KAP) is essential for designing context-specific awareness strategies and for strengthening organ donation programmes at both institutional and community levels.

OBJECTIVES

Primary Objective: To assess the awareness, knowledge, attitudes and practices (KAP) regarding organ donation among adult patients attending the outpatient departments (OPDs), inpatient wards (IPDs) and casualty at CHRI, Kelambakkam.

Secondary Objectives:

- To identify sociodemographic factors associated with awareness and knowledge levels.
- To assess willingness to donate organs and reasons for refusal.
- To identify common misconceptions regarding organ donation.
- To determine the major sources of information about organ donation.
- To compare the findings with previously published studies in similar Indian settings.

MATERIALS AND METHODS

Study design and setting

This investigation was designed as a hospitalbased descriptive crosssectional study. It was conducted in the outpatient departments, inpatient wards and casualty/emergency department of Chettinad Hospital and Research Institute (CHRI), Kelambakkam, Tamil Nadu.

Study population

The study population consisted of adult patients aged 18 years and above who attended the OPD, were admitted to IPD or presented to the casualty during the data collection period.

Inclusion criteria:

- Adults aged 18 years and above.
- Patients attending OPD, admitted in IPD or visiting casualty.
- Individuals who provided informed written consent.

Exclusion criteria:

- Critically ill patients who were unable to respond.
- Patients with psychiatric illness or cognitive impairment.
- Individuals who were not willing to participate.

Sample size

The sample size was estimated using the formula:

Assuming an awareness proportion (p) of 70% based on a previous study (2), with $q = 0.30$ and an absolute precision (d) of 5% (0.05), the calculated sample size was approximately 336. To account for an anticipated 10% nonresponse rate, the final sample size was increased to 370 participants.

Sampling technique

Participants were selected using systematic random sampling and recruited until the required sample size was achieved.

Study tool

Data were collected with the help of a structured, prevalidated questionnaire adapted from previously published Indian studies (1–3). The questionnaire covered:

- Sociodemographic information.
- Knowledge and awareness regarding organ donation.
- Attitudes toward organ donation.
- Practices and willingness related to organ donation.

The instrument was translated into Tamil and then backtranslated into English to ensure linguistic accuracy. A pilot test was conducted among 20 participants to check feasibility and clarity, and necessary modifications were made.

Data collection procedure

Data collection was carried out over a fourweek period. Eligible participants were approached in OPD, IPD and casualty areas. After explaining the purpose of the study, written informed consent was obtained from each participant. Information was collected through facetoface interviews lasting about 10–12 minutes per participant. Confidentiality and anonymity were maintained by avoiding personal identifiers and securely handling all questionnaires.

Data analysis

Data were entered into Microsoft Excel and analysed using SPSS version 20. Descriptive statistics such as frequencies, percentages and means were used to summarise the data. Associations between categorical variables were assessed using the Chisquare test. A pvalue of <0.05 was considered statistically significant.

Ethical considerations

Ethical approval for the study was obtained from the Institutional Ethics Committee of CHRI prior to data collection. Participation was entirely voluntary, and participants were informed of their right to withdraw at any point without any impact on their care. No identifying information was recorded on the study tools.

RESULTS

A total of 370 participants were enrolled in the study. Almost all respondents (98.9%) reported that they had heard of organ donation. Awareness of brain death was present in 77.7% of participants, while only 22.3% were aware of the Transplantation of Human Organs and Tissues Act (THOTA).

Table 1: Awareness and Knowledge of Organ Donation (n = 370)

Variable	Response	Frequency (n)	Percentage (%)
Heard about organ donation	Yes	366	98.9
	No	4	1.1
Awareness of brain death	Yes	287	77.7
	No	83	22.3
Awareness of THOTA Act	Yes	83	22.3
	No	287	77.7

Most respondents expressed positive attitudes towards organ donation, with a large majority agreeing that it can save lives and that awareness programmes are important. At the same time, concerns about possible misuse of organs and some degree of mistrust in the healthcare system were evident.

Table 2: Attitude Toward Organ Donation

Statement	Agree (%)	Neutral (%)	Disagree (%)
Organ donation saves lives	>90	—	—
Religion permits donation	Majority	—	—
Willing to donate organs	—	—	—
Fear of misuse of body	Present	—	—
Awareness campaigns are useful	High agreement	—	—

Table 3: Willingness and Practices

Variable	Response	Frequency (n)	Percentage (%)
Willing to donate	Yes	233	62.9
	Not sure	125	33.7
	No	12	3.4

With regard to practices and future intent, 62.9% of participants stated that they were willing to donate organs in the future, 33.7% were uncertain and 3.4% were unwilling to donate. However, actual practice was very limited: only 2.9% had formally registered as organ donors, and 3.4% had discussed organ donation with family members.

Table 4: Barriers to Organ Donation

Barrier	Observation
Fear of misuse of organs	Common
Lack of knowledge	Common
Religious/cultural concerns	Present
Lack of family discussion	Major barrier

The most frequently reported barriers to organ donation were fear of misuse of organs, lack of adequate knowledge, religious or cultural concerns and absence of prior family discussion.

Table 5: Knowledge–Practice Gap

Parameter	Percentage (%)
Awareness	98.9
Brain death knowledge	77.7
Legal awareness	22.3
Willingness to donate	62.9
Actual registration	Minimal

Overall, there was a clear discrepancy between high levels of awareness (98.9%) and the very low rate of actual donor registration, indicating a pronounced knowledge–practice gap.

DISCUSSION

The present study from a tertiary care hospital in Kelambakkam found very high overall awareness regarding organ donation, with 98.9% of participants having heard about it. This aligns with findings from previous Indian studies that have reported awareness levels above 80% in different populations.^{1,2} However, similar to earlier reports, high awareness in our study did not correspond to adequate indepth knowledge or to actual donation related behaviour.

Awareness about brain death (77.7%) in our study was higher than the 40–60% range reported in some previous studies (3,9). This difference may reflect increasing exposure to health information through media, internet and greater contact with healthcare services in recent years. Despite this, knowledge regarding legal provisions such as the Transplantation of Human Organs and Tissues Act remained poor (22.3%), which is consistent with Indian literature documenting inadequate legal awareness among both urban and rural populations.^{3,10,11}

Although the majority of participants had a favourable attitude towards organ donation, only 62.9% expressed willingness to donate, and a sizeable proportion remained undecided. This pattern mirrors the attitude–practice gap reported in other Indian and international studies, where high approval of the concept of organ donation does not automatically translate into willingness to donate one's own organs.^{2,4,8,12} Emotional factors, cultural influences and the absence of clear, trustworthy information likely contribute to this hesitation.

The barriers identified in this study—fear of misuse of organs, lack of knowledge,

religious or cultural concerns and lack of family discussion—are also well documented in earlier work.^{4,5,9,13,14} Misconceptions such as the belief that doctors may not make sufficient efforts to save the lives of registered donors point towards an underlying mistrust in the healthcare system. Addressing these fears through transparent communication and consistent public messaging is essential.

Despite high awareness, the number of participants who had actually registered as organ donors was negligible, echoing findings from both rural and urban settings in India (3,10). This underscores the pressing need to convert awareness into specific actions, such as registration and documented consent. Studies have shown that higher educational attainment, exposure to media campaigns and interaction with healthcare professionals are associated with increased willingness to donate (5,11,15). In our study, most respondents agreed that awareness campaigns are useful, suggesting that wellplanned educational interventions, integrated with hospitalbased counselling and community outreach, may substantially improve organ donation rates.

CONCLUSION

The present study shows that, although awareness of organ donation is almost universal among the participants, important gaps remain in their detailed understanding, especially with respect to brain death and the legal framework governing transplantation. Attitudes towards organ donation were generally favourable, yet they did not translate into corresponding behaviours such as donor registration or active discussion with family members.

Persistent misconceptions, fear and inadequate knowledge of procedures continue to act as major obstacles to organ donation. The observation that a considerable proportion of individuals remain unsure about donating their organs indicates a substantial opportunity for focused interventions. Implementing structured awareness and educational programmes, incorporating organ donation topics into academic curricula, strengthening the role of healthcare professionals in counselling and promoting open conversations within families are crucial steps. Bridging the gap between awareness and actual practice

is essential to improve organ donation rates and to address the increasing burden of organ failure in India.

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