

**ATTITUDE AND PERCEPTION TOWARDS ORGAN DONATION
AMONG MEDICAL STUDENTS AND RESIDENTS IN TERTIARY
CARE CENTRE- A CROSS-SECTIONAL STUDY**

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ABSTRACT:

Background: Organ transplantation is a life-saving medical advancement, yet the global demand for organs far exceeds supply. In India, this gap is particularly severe, with an organ donation rate of just 0.4 per million people—much lower than countries like Spain, which exceeds 30 per million. While infrastructure plays a role, cultural beliefs, lack of awareness, and mistrust in the healthcare system are major barriers to donation.

Medical students and residents are well-positioned to influence public perception and healthcare practices around organ donation. However, many still lack accurate knowledge and hold misconceptions despite their clinical training. Addressing these gaps requires not only education but also attitude-shaping interventions through curriculum integration and ethical discussions.

Aim:

To assess the attitude and perception of medical students and residents towards organ donation among medical students and residents in tertiary care centre

Materials and methods:

A cross sectional study was carried out in tertiary care center in south Tamil Nadu, during

February to March 2025 with the sample size of 150. Sampling method used- Simple random sampling. Data was collected using Google forms from medical students and residents. Data entered in Microsoft excel and analyzed using SPSS Version 2.0.

Result:

Among 150 participants majority were female (62.8%), Hindu (55.8%). Most respondents (88.7%) had heard about organ donation, and 97.4% acknowledged the need for organ donation. However, only 40.4% were aware of the Organ Donation Act of 1994, and a significant 7.7% had no awareness of any legal framework.

Awareness of hospital-related donation activities was high (76.3%), and kidney was the most recognized organ for donation (83.3%). Only 31.4% had attended any organ donation-related training in the last year. While 60.3% believed that their curriculum provided adequate learning, a considerable 39.7% felt otherwise.

Most importantly, although 75% of participants expressed a willingness to donate their organs, only a small percentage had taken concrete steps such as pledging or donating, showing a gap between knowledge, attitude, and actual practice.

Conclusion:

Medical students and residents generally show positive attitudes toward organ donation, but lack sufficient legal knowledge, practical training, and exposure. To address these gaps, medical education must include focused curriculum content, hands-on training, and ethical discussions. Strengthening these areas will empower future healthcare professionals to advocate effectively for organ donation and support efforts to increase donor rates.

Key words: Attitude, Medical students, Perception, Organ donation act, Organ donation, Vital organs

INTRODUCTION:

Organ transplantation stands as one of the most significant achievements of modern medicine, offering a second chance at life to patients with end-stage organ failure. Commonly transplanted organs include the kidneys, liver, heart, lungs, and pancreas, while tissues such as corneas, skin, and bone marrow also provide critical therapeutic benefits. Despite these advances, a persistent and chronic gap remains between the demand for organs and their availability. According to the World Health Organization (WHO), the number of patients on transplant waiting lists globally far exceeds the number of transplants performed each year [1].

In India, this disparity is particularly stark. With a population exceeding 1.4 billion, the country's organ donation rate remains at just 0.4 per million population—a figure that pales in comparison to developed nations such as Spain, where the rate exceeds 30 per million [2]. This gap is not solely due to infrastructural or logistical constraints. Deep-seated public attitudes, cultural norms, religious beliefs, and widespread lack of awareness also play pivotal roles. Misinformation, fear of bodily disfigurement, and mistrust in the healthcare system continue to be significant barriers to voluntary organ donation [3,4]. In a country where discussions around death are often shrouded in spiritual and religious sensitivities, posthumous organ donation frequently encounters emotional and moral resistance.

Healthcare professionals, particularly medical students and residents, occupy a unique and influential position in the organ donation ecosystem. As both future clinicians and potential advocates, their knowledge, attitudes, and willingness to promote organ donation are critical to shaping institutional practices and influencing public perceptions [5,6]. Yet, despite their clinical exposure, numerous studies have highlighted that many trainees harbor misconceptions regarding organ donation laws, eligibility criteria, and the actual donation process [7].

Importantly, enhancing knowledge alone is insufficient to drive meaningful change. Attitudinal shifts require sustained educational interventions, including the integration of organ donation topics into undergraduate and postgraduate medical curricula, simulation-based training, and interactive discussions on ethical dilemmas. Medical colleges and teaching hospitals bear a dual responsibility—not only to train competent healthcare providers but also to nurture socially conscious individuals committed to public health initiatives such as organ donation [11].

Given this context, it becomes imperative to assess the knowledge and attitudes of medical students and residents toward organ donation. Understanding these dimensions can help identify educational gaps, dispel prevailing myths, and inform the design of targeted strategies aimed at improving organ donation rates. This study, therefore, seeks to evaluate the awareness and perceptions of medical trainees regarding organ donation, thereby contributing to the broader national effort to save lives through increased donor registration and participation.

OBJECTIVES:

To assess the attitude and perception of medical students and residents towards organ donation among medical students and residents in tertiary care centre

MATERIAL AND METHODS:

This cross-sectional study is carried out in tertiary care centers of south Tamil Nadu, from February to March 2025 with the sample size of 150. Sampling method used- Simple random sampling. Data was collected using google forms from medical students and residents. Data entered in Microsoft excel and analyzed using SPSS Version 20.

Sample size calculation:

$$P= 89.4\% \quad q= 10.6\% \quad d=5\%$$

$$n = \frac{Z_{1-\alpha/2}^2 pq}{d^2}$$

$$n = \frac{1.96^2 \times 89.4 \times 10.6}{5^2}$$

$$= \frac{3.84 \times 947.64}{25}$$

$$= 145.55$$

$$n = 150 \text{ (rounded off)}$$

RESULTS:

Table 1: Demographic details:

Variables	Frequency	Percentage (%)
Gender		

Female	98	62.8
Male	58	37.2
Religion		
Hindu	87	55.8
Christian	53	34
Muslim	14	9
Others	2	1.3
Year of study		
First year MBBS	5	3.2
Second year MBBS	7	4.5
Third year MBBS	21	13.5
Final year MBBS	32	20.5
Interns	53	34
Residents	38	24.5

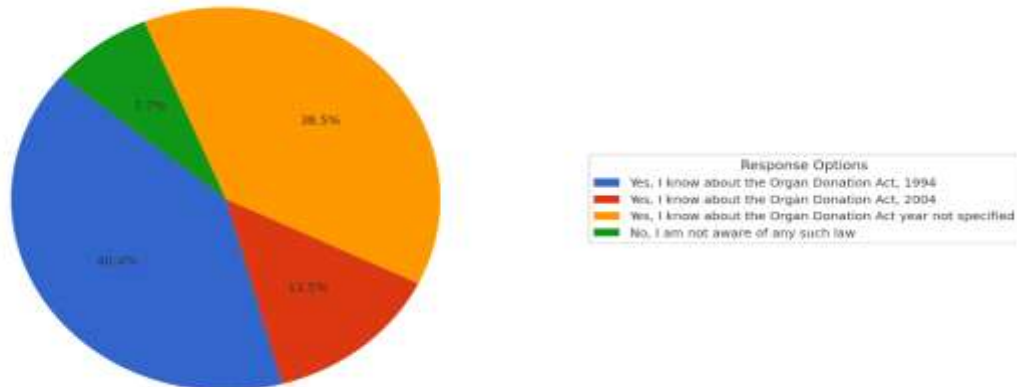
Table 2 : Attitude and practice towards organ donation

Questions with Response	Frequency n	Percentage (%)
Do you know the laws concerning organ donation in our country?		
Yes, I know about the Organ Donation Act, 1994	63	40.4
Yes, I know about the Organ Donation Act, 2004	21	13.5
Yes, I know about the Act (year not specified)	60	38.5
No, I am not aware of any such law	12	7.7
Are you aware of any activities related to organ donation in hospital?		
Yes	119	76.3
No	37	23.7
Which organs do you think are harvested in your hospital?		
Heart	38	24.4
Lungs	12	7.7
Kidney	130	83.3
Liver	22	14.1
Others	11	11.8
Do you feel there is a need for organ donation?		

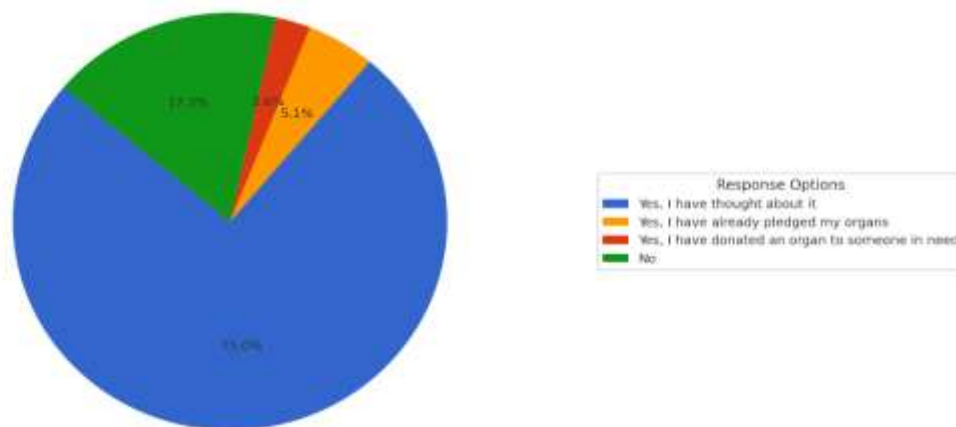
Yes	152	97.4
No	4	2.6
Has anyone in your family/friends donated any organ?		
Yes	122	78.2
No	34	21.8
Have you ever donated any tissue/organ?		
Yes	140	89.7
No	16	10.3
Do you wish to donate your organs?		
Yes, I have thought about it	117	75.0
Yes, I have already pledged my organs	8	5.1
Yes, I have donated an organ to someone in need	4	2.6
No	27	17.3
If yes, why do you want to donate organs?		
I know about the benefits of organ donation to the needy	92	68.7
I want to contribute to medical science	10	7.5
I want to be useful after death	20	14.9
Other reasons	12	9.0
If no, why do you not want to donate organs?		
I am afraid the process will disfigure my body	9	18.4
It is against my religious beliefs	12	24.5
I fear my organs will be misused or trafficked	9	18.4
Other reasons	19	38.8
Would you prefer that only a close one receives your organs?		
Yes, to my closed ones only	29	18.6
Only to the ones who can't afford it	13	8.3
Only to rich people	2	1.3
No, it does not matter who receives	112	71.8
Will your family support your decision to donate?		
Yes	65	41.7
No	19	12.2
Never discussed with them	72	46.2
Would you agree if a family member wishes to donate?		
Yes, I would	108	69.2

No, I am not comfortable with the idea	13	8.3
I have never thought about it	35	22.4
Have you or your family benefited from organ donation?		
Yes	27	17.3
No	129	82.9
Do you have a donor card?		
Yes, I have	9	5.8
Yes, I carry it always	10	6.4
No	137	87.8
Have you attended training/sensitization in past year?		
Yes	49	31.4
No	107	68.6
If yes, where was it conducted?		
Within institute	54	58.1
Outside institute	39	41.9
Do you believe your curriculum covers organ donation sufficiently?		
Yes	94	60.3
No	62	39.7
Do you know the laws concerning organ donation in our country?		
Yes, I know about the Organ Donation Act, 1994	63	40.4
Yes, I know about the Organ Donation Act, 2004	21	13.5
Yes, I know about the Organ Donation Act year not specified	60	38.5
No, I am not aware of any such law	12	7.7

Awareness of Organ Donation Laws in India (n = 156)



Willingness to Donate Organs (n = 156)



DISCUSSION:

A study conducted in Gujarat revealed that 88.8% of participants were willing to donate their organs; however, actual awareness about organ donation laws, such as the Transplantation of Human Organs Act, 1994, was limited, with only 25.2% having correct knowledge. Furthermore, just 5.2% had formally pledged to donate and possessed donor cards. Notably, 66.4% believed that the existing medical curriculum insufficiently addressed organ donation. In contrast, our study found that 75% were willing to donate, with 40% demonstrating accurate knowledge of the law. Only 5.1% had made a pledge, and 6.4% held donor cards. Additionally, 39.7% felt that the medical curriculum did not sufficiently cover organ donation, highlighting the need for improved educational initiatives.

A study in Telangana reported that 79.4% of interns possessed sufficient knowledge about organ donation, and 77.5% expressed willingness to donate organs. However, only 5.6% held donor cards. In comparison, our study showed that 40% of participants had adequate knowledge, 75% were willing to donate, and 6.4% possessed donor cards.

A study conducted in Pakistan found that 88.7% of students were aware of organ donation, yet only 34.6% were willing to donate, and just 0.6% had actually donated an organ. The primary motivation for donating, cited by 51.7% of students, was ‘to save lives,’ while ‘religion’ was the main deterrent for 27.6%. In contrast, our study showed that 97% of students were familiar with organ donation, with 75% willing to donate and 2.6% having donated an organ. Similarly, ‘to save lives’ was the leading motivation for 68.7% of participants, and ‘religion’ was the top factor discouraging donation for 24.5%.

LIMITATION OF WORK:

1. Limited Sample Size

The study included a relatively small number of participants, which may not be representative of all medical students and residents across different institutions.

2. Single-Center Study

The data was collected from a single medical institution or region, limiting the generalizability of the findings to the broader population of healthcare trainees in other parts of the country or globally.

3. Use of Self-Reported Data

The responses were based on self-reported questionnaires, which are subject to social desirability bias—participants may have given answers they perceived as socially acceptable rather than their true beliefs or practices.

4. Cross-Sectional Design

Being a cross-sectional study, it captures data at one point in time and cannot establish cause-effect relationships or track changes in knowledge or attitude over time.

5. Limited Depth of Questionnaire

While the questionnaire gathered basic information on knowledge and attitudes, it may not have fully explored deeper motivations, emotional factors, or cultural influences affecting organ donation decisions.

RECOMMENDATIONS:

1. Strengthen Educational Initiatives:

A significant proportion of respondents (68.6%) had not attended any organ donation-related training or sensitization programs in the past year. Educational workshops and awareness campaigns should be integrated into the medical curriculum and made mandatory to improve understanding and engagement.

2. Clarify Legal Frameworks:

Although 40.4% were aware of the 1994 Organ Donation Act, awareness about the 2004 amendment was considerably lower (13.5%). There is a need to provide comprehensive legal education about organ donation laws to both students and professionals, potentially through institutional seminars or e-learning modules.

3. Encourage Open Dialogue with Families: Nearly 46.2% had never discussed organ donation with their families, which could hinder their ability to make or support donation decisions. Programs should promote family discussions and normalize these conversations within healthcare education.

4. Promote Donor Card Registration: With 87.8% not carrying a donor card, there is a clear opportunity to increase donor registration. Institutions could facilitate on-campus donor registration drives and distribute donor cards during awareness events.

5. Enhance Visibility of Hospital Activities: While 76.3% were aware of organ donation activities in their hospitals, increasing visibility through posters, digital displays, and staff engagement can further normalize and promote organ donation culture within medical institutions.

6. Incorporate Hands-On Learning: Only 60.3% believed their current curriculum provides sufficient experience. Incorporating case studies, interactions with transplant coordinators, and visits to organ transplant centers can improve practical understanding.

SUMMARY AND CONCLUSION:

The study concludes that while the overall awareness and positive attitude toward organ

donation among medical students and residents are encouraging, there exists a significant gap in legal knowledge, training exposure, and practical engagement with organ donation processes.

The findings emphasize the need to strengthen educational initiatives, improve access to training and sensitization programs, and promote legal and ethical understanding of organ donation. By addressing these gaps through curriculum reform and institutional efforts, medical professionals can be better prepared to act as advocates and role models in promoting organ donation

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Conflicts Of Interest: None declared

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