



“A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND AWARENESS OF ORGAN DONATION AMONG THE PREFINAL YEAR STUDENTS OF G.R. MEDICAL COLLEGE, GWALIOR (M.P.)”

Community Medicine

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ABSTRACT

Introduction: Despite the pressing need for organs in India, where organ failure causes nearly one lakh deaths annually, the country faces a severe shortage of available organs, with only 905 deceased donors in 2017 against a demand for approximately 5 lakh organs. **Material and Methods:** A Cross-sectional study was carried out from July to September 2023 and included 150 students using a pre-structured, pre-designed and validated questionnaire. Percentages were calculated and appropriate statistical tests were applied. **Results:** In the present study, 93.33% students were aware of the concept of word of organ donation, and showing the maximum awareness regarding kidneys (85.33%) as an organ used for organ donation. Only (41.33%) knew about the organ donation policy of college. Television [105 (70%)] and books [92 (61%)] were the predominant sources of information. 96 (64%) of students strongly agreed that organ donation should be encouraged, but only 36 (24%) were willing to take a pledge for organ donation. **Conclusion:** The findings highlighted the need for targeted educational interventions to enhance the knowledge and willingness of medical students regarding organ donation.

KEYWORDS

Awareness Organ Donation, Prefinal year students.

INTRODUCTION

Organ donation involves the process of retrieving a human organ from a living or deceased individual, known as the donor, and transplanting it into a recipient. In India, the primary legislation governing organ donation and transplantation is the Transplantation of Human Organs & Tissues Act, enacted in 1994 and is aimed at regulation of removal, storage and transplantation of human organs for therapeutic purposes and for prevention of commercial dealings in human organs.^[1]

In India, out of the 9.5 million deaths annually, approximately one lakh result from organ failure, making organ donation a critical means to save and extend lives. However, the country faces significant challenges in meeting organ donation needs, primarily due to public awareness gaps, misinformation, and cultural and religious barriers.^[2]

It is estimated that around 1.5 lakh people in India suffer brain stem deaths annually due to accidents, with additional cases from other causes. Despite this, the organ donation rate is just 0.86 per million population, with only 905 deceased donors recorded in 2017. This is starkly contrasted by the annual demand for approximately 5 lakh organs, with only 2-3 percent of this demand being met, leading to many preventable deaths due to organ failure.^[3]

The shortage of organs is a global issue, with Asia, and particularly India, lagging behind in organ donation rates. Although nearly every person who dies, whether naturally or in an accident, is a potential donor, many patients are still unable to find a suitable organ donor.^[4] Medical students have the potential to play a crucial role in addressing this issue. However, they may miss opportunities to contribute effectively due to insufficient knowledge about organ donation. Educating medical students early in their careers could significantly improve organ procurement rates.

Hence, this study was carried out to determine the present level of knowledge of medical students toward organ donation and to identify the areas where the knowledge was lacking and to further suggest remedial measures to augment the knowledge in those areas.

MATERIALS AND METHODS:

The present study was a cross-sectional study, carried out among the Prefinal year students of G.R. Medical College, Gwalior during the period of 3 months i.e., from July to September 2023. A total of 150 students participated in this study. A pre-structured, pre designed and pre-validated questionnaire was used in which the sociodemographic profile category, religion and awareness for organ donation was enquired. They were also asked regarding their knowledge about organ donation and whether they are willing for organ donation. If they are not willing for organ donation the reason for not willing was also enquired. Students were briefed about the background and purpose of the study and the questionnaire was given in the class room. After answering, the responses were collected, analysed and interpreted. The appropriate Statistical tests were also applied.

RESULT

Out of 150 students about 80% of the students were in the age group of 21- 25 years. The sample included 69 (46%) male students and 81 (54%) female students. Both males and females were predominantly from urban area i.e. 111(74%). All the study participants were unmarried and 143 (95 %) of them were residing in hostel. The maximum number of students i.e., 108 (72%) belongs to Socioeconomic Class I according to Modified B.G. Prasad Classification^[5] [Table-1].

Table 1: Showing the Socio Demographic Profile of the Students

S. No.	Socio Demographic Profile	Variables	Frequency (%)
			N= 150
1.	Gender	Male	69 (46%)
		Female	81 (54%)
2.	Age (Years)	Less than 20	26 (17.33%)
		21- 25	120 (80.00%)
		26 – 30	04 (2.67%)
3.	Religion	Hindu	138 (92.00%)
		Muslim	05 (3.33%)
		Christian	07 (4.67%)
4.	Origin	Rural	39 (26%)
		Urban	111 (74%)

5.	Type of Family	Nuclear	108 (72.00%)
		Joint	33 (22.00%)
		3 generation	09 (6.00%)
6.	Socioeconomic Status	I 8822 and above	108 (72.00%)
		II 4411 – 8821	27 (18.00%)
		III 2647 – 4410	06 (4.00%)
		IV 1323-2646	05 (3.33%)
		V <1322	04 (2.67%)

The majority of the students 140 (93.33 %) were aware about the word organ donation. Regarding various organs that could be donated, most of the students were having the knowledge that kidney 128 (85.33%), liver 113 (75.33%), heart 92 (61.33%) etc. can be donated [Table-2]

Table No. 2 Showing Knowledge About Various Organs That Could Be Donated. *

S.No.	Organs	Frequency (%)
1.	Eye	84 (56.00%)
2.	Liver	113 (75.33%)
3.	Heart	92 (61.33%)
4.	Kidney	128 (85.33%)
5.	Skin	27 (18%)
6.	Vessels	2 (1.33%)
7.	Cornea	54 (36.00%)
8.	Bone marrow	43 (22.66%)
9.	Stem cell	1 (0.66%)
10.	Intestine	6 (4.00%)
11.	Lungs	25 (16.66%)
12.	Pancreas	12 (8.00%)

*Multiple Responses were given about the knowledge regarding various organs that could be donated.

About 83(55.34) % of the students were unaware of the various higher centres to approach for organ donation. Only 62 (41.3 %) were aware that the college in which they are studying have an organ donation policy. Very few of them i.e., 35 (23.33%) of the students were aware of a place to approach for organ donation as shown in Table-3.

Table No. 3 Showing Awareness about “Organ Donation”

Awareness about “Organ Donation”	Yes	No	Not aware
1. Aware of the word 'organ donation'.	140 (93.33%)	10 (6.67%)	0 (0%)
2. Does your religion permits 'organ donation'.	137 (91.33%)	13 (8.67%)	0 (0%)
3. Does the hospital in which you are studying have an 'organ donation policy'.	62 (41.33%)	5 (3.33%)	83 (55.34%)
4. Do you know anybody who has undergone any 'organ donation'.	36 (24.00%)	81 (54.00%)	33 (22.00%)
5. If someone of you wants to donate organ, do you know where to approach	35 (23.33%)	55 (36.67%)	60 (40.00%)

The most common source of information on organ donation was Television (70%) followed by the books (61%) as shown in Figure 1.

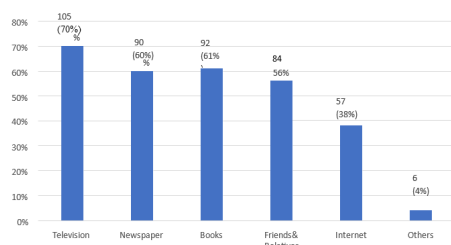


Figure 1: Showing Source of Information regarding “Organ Donation”*

* Multiple response was given regarding source of knowledge about organ donation.

The attitude towards organ donation on Likert scale showed, 96 (64%) students strongly agree for further encouragement on organ donation in the country while 19 (12.7%) students believe that people in the

country were not willing to donate organs. 44 (29.3%) students strongly agree for encouraging their family and friends to donate organs if required for others.

About their willingness for organ donation only 38 (25.3%) strongly agree for willingness for organ donation and 30 (20%) remained neutral as shown in Table-4.

Table No. 4 Showing Attitude of the Students for “Organ Donation”

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Are you willing for organ donation.	38 (25.33%)	82 (54.66%)	30 (20.00%)	0	0
2. Do you feel that organ donation in the country should be encouraged.	96 (64.00%)	44 (29.33%)	10 (6.66%)	0	0
3. Do you feel that people in the country are willing to donate organ.	28 (18.66%)	56 (37.33%)	47 (31.33%)	17 (11.33%)	2 (1.33%)
4. Do you feel you would encourage your family and friends to donate organs if required.	44 (29.33%)	86 (57.33%)	20 (13.33%)	0	0

When asked to take pledge for organ donation only 24% agreed to take pledge and 69.33% of the students said that they needed more information about organ donation before taking pledge for the same. A Very few of them 6.66% refused to take the pledge as shown in figure 2.

DISCUSSION

Globally, the mortality rate among those on transplant waiting lists has been rising due to a persistent shortage of donor organs, despite the transplant community's efforts to broaden the donor pool by accepting extended criteria donors or living donors^[6]. As a result, the success of organ donation and transplantation continues to rely heavily on the support and positive attitudes of healthcare professionals and the general public.

Improvements in knowledge about organ donation and consequently positive attitudes to donation after death may lead to significantly higher numbers of potential donors and a significantly increased consent rate.

In the present study, the majority of the students were in between the age group of 21–25 years 120 (80%) and female students were more in comparison to the male students, which was similar in other studies conducted among nursing, dental and undergraduate medical students^[7-9].

In the present study the main source of information was Television (70%) followed by books (61%). The study found that the electronic media was the main source of information to medical students regarding organ donation. This shows the role of media in propagating the concept of organ donation which was similar to the study done by Sindhu et al. in 2017.^[10]

In the present study most of the students i.e., 140 (93.33%) were aware of the word “Organ

Donation” but very few of them i.e., only 137 (41.33%) were having awareness about the “Organ Donation Policy” in College. While carrying out research at Andhra Medical College, Deepthi et al. 2015 found that 97.6% of students were aware of organ donation and 56.9% show complete knowledge about every aspect of organ donation which is closely related to the present study.^[11]

About 137 (91.33%) of the students believed that religious beliefs do prevent individuals from donating organs whereas a study conducted by Tamuli et al.^[12] showed that only 12.5 % of the participants believed that there was a role of Religion in Organ Donation. Similar observations were noted in a study conducted by Adithyan GS et al. in which (95.3 %) of the respondents expressed no religious preference regarding organ donation.^[13]

In current research, most of the 80% participants were aware that Kidney 128 (85.33%) and Liver 113 (75.33%) were the organs used for donation. In which some of them also knew about donations of Cornea 54 (36.00%) and Heart 92 (61.66%). This was similar to another study conducted.^[14]

In the present study, 80% of the students were willing for organ donation which is similar to a study conducted by the Charumathy et al.^[15] in which only 24.3 per cent of the participants had exhibited the highest level of motivation towards the possibility of their organ being used for organ donation. These observations were similar to the study done in Nigeria, where only 30% of the participants were willing to donate.^[16]

In the present study 140 (93.33%) of the students were in favour of further encouragement of organ donation in the country. While at the same time 19 (12.66%) of the students strongly felt that the people in the country were not willing to donate their organs. Similar findings were seen in the study conducted by Shanta Chandrasekaran et al.^[17] where majority of the students agreed that the Government should initiate strategies to motivate the organ donation by providing priorities in the beneficiary schemes and seat allotment quota in education and employment for the organ donor's first relatives. In a study conducted by Deepthi et al.^[11] in 95.9 % of the students thought that there was need to create awareness in the public to promote organ donation. It was observed in the present study that the majority of the students were in favour of encouraging their family and friends for organ donation.

For taking the pledge for organ donation only 36 (24%) of the students agreed for taking pledge but majority of them i.e., 104 (69.33%) needed more information about organ donation before taking their pledge for donating their organs. This shows the need of creating awareness about organ donation among medical students as well as general public. Increasing knowledge about organ donation among medical students could be approached through various strategies such as ensuring that organ donation topics are integrated into the medical school curriculum comprehensively. This includes dedicated lectures, seminars, and practical sessions covering the medical, ethical, and legal aspects of organ donation and transplantation. Another way to raise awareness among medical students as well as general public is by Community engagement i.e., by organizing outreach events, awareness campaigns, and community service activities focused on organ donation.

CONCLUSION

This study highlighted a significant gap in knowledge and awareness about organ donation among medical students, despite their potential role in addressing the organ shortage crisis in India. While a majority of the students were familiar with the concept of organ donation, many lacked detailed knowledge about organ donation policies, procedures, and the actual process of donation. The study also revealed that religious beliefs and lack of information contributed to the hesitation in committing to organ donation.

There is a clear need for targeted educational interventions to enhance the knowledge and awareness of organ donation. Integrating comprehensive organ donation topics into the medical curriculum, along with practical exposure to organ donation procedures, could help in bridging this gap.

Recommendation

The Organ Donation awareness programs should be organized from time to time to encourage general public to increase the acceptability of organ donation and they should also be included in the curriculum for Under graduate students of Medical Colleges.

There should be Greater involvement of mass media in spreading awareness about organ donation.

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