








A cross-sectional study to assess knowledge and attitude towards organ donation among the patients attending in various outpatient departments of a tertiary care hospital in western Maharashtra

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Abstract

Background: The impact of organ donation is profound. It can save lives, improve health outcomes, and provide hope for patients and their families. The main objective of our study was to assess the knowledge and attitude about organ donation.

Materials and Methods: A cross-sectional descriptive study was conducted at a tertiary care hospital and associated community health care Centre in Western Maharashtra. Totally, 250 participants were selected for the study by convenient sampling technique. A structured interview questionnaire was prepared and validated by the experts from the field of medicine, nursing, research and statistics.

Results: Out of 250 participants, 97% were aware about organ donation and the mean knowledge score of participants was 7.5 ± 1.6 . In our present study, most 90.4% of respondents supported organ donation and 51 % believed that organ donation leads to body disfigurement.

Conclusion: From this study, we revealed the respondents support for organ donation but a significant majority was hesitant. Lack of awareness, religious or cultural concerns and misinformation were the key barriers to organ donation. Based on the knowledge and attitude of the community, an outreach program was planned and conducted to create more awareness about organ donation. The education program helped to foster a culture of understanding and commitment to saving lives through organ donation.

Key Words: organ donation, knowledge, attitude, cross sectional study, Maharashtra

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Introduction

Organ donation [1, 2] is a procedure in which a person gives an organ or tissue to another person who needs a transplant. This selfless act of generosity can profoundly impact the lives of those suffering from severe organ failure or damage, offering them a chance to regain health and extend their lives. Organ donation is crucial because there are thousands of people on waiting list for organ transplant and many of these individual face life threatening conditions. As per Health resource and service administration of India 2023, 103233 men, women and children are on the national transplant waiting list. 17 people die each day waiting for the organ transplant. [3] Organ donation occurs after a person has been declared brain dead due to an accident, illness or injury. In such cases, if the individual had consented to donation or if their family agrees, the organs are transplanted into the recipient.

Donating organ is a powerful act of generosity that can save lives and improve the quality of life for many people. [4] Despite the importance of organ donation and transplantation in improving the quality of life, still, there is a shortage of organ donation worldwide. Lack of knowledge among public could be reason. Organ Procurement and Transplantation Network of India 2024 data shows that 89,1011 patients waiting for kidney transplant, 9862 for liver transplant, 3436 for heart transplant, 832 for pancreas transplant, 2054 for both kidney and pancreas transplant and 943 for lung transplant respectively. [5] As per national organ transplant and retrieval organization there were

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only 1,028 deceased donors in the year 2023. [6] The demand for organs is extremely high. There is need to reduce this massive demand supply imbalance. [7]

In India, organ donation rate is very low, at 0.26 per million people. [8] Major barrier includes lack of awareness, religious myths and misconceptions, concerns about bodily disfigurement, distrust in the health care system and poor family consent rates. [9] There is an urgent need to improve understanding and attitudes towards organ donation in Indian population to bridge the rising demand supply gap. [10] The objectives of the present study were to assess the level of knowledge and attitude towards organ donation and to find the association of knowledge and attitude towards organ donation among the patients attending the various OPDs of a tertiary care hospital in western Maharashtra.

Material and Methods

A cross-sectional descriptive study was conducted at a tertiary care hospital and associated community health care Centre. The target populations for the study were patients and attendants visiting OPDS or community health Centre for curative, preventive, promotive health care services. Permission for conducting the study was taken from the authorities and institutional ethical committee clearance taken and the IEC No: 854/CON/res. Totally, 250 participants were selected for the study by convenient sampling technique. A structured interview questionnaire was prepared and validated by the experts from the field of medicine, nursing, research and statistics. The questionnaire had three sections: (a). Demographic profile; (b). Knowledge questions with a total score of 10; and (c). Attitude scale with 15 items. Data collection was done by interview technique from 01 Aug to 10 Aug 2024 after taking informed consent from the study participants. Study included both male and female from 16 to 70 years of age who are literate. Medical professionals were excluded from the study.

Results

On analysing demographic profile, it was found that 61% were male and 39% of participants were female. 59% of the population were from joint family whereas 40 belonged to nuclear family and 1% was in extended family. Majority of the participants (92%) were Hindu by religion, 5% were Muslims and 2% were Christians. Among the 250 surveyed people, 56% knows about organ donation through mass media, 29% know it by health care professionals and 15% by family members.

Out of 250 participants, 97% were aware about organ donation and 46.4% knew that only some of the organs can be donated. 238 (95.2%) participants stated that organ donation is important as it saves lives. 72 % of the study participants correctly answered, Kidney as the most transplanted organ and 64% were aware that liver can regrow. 60 % responded that it is mandatory to inform family about organ donation and 38 % believed that it is not mandatory whereas 2% of the respondents were not sure about keeping the family informed about organ donation. The mean knowledge score of the participants were 7.5 with a SD of 1.6 as shown in **Table-1**.

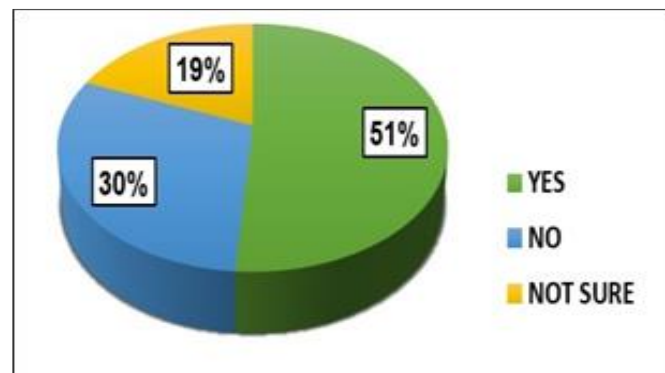
Out of 250 participants, 90.4% of respondents supported organ donation and 51 % believed that organ donation leads to body

Table-1 Distribution of participants as per mean knowledge scores (N=250)

| S No | Knowledge (Score) | Frequency (%) | Mean (SD) |
|------|-------------------|---------------|------------|
| 1 | Excellent (7-10) | 146 (58.4) | 7.5 (1.63) |
| 2 | Good (5-7) | 70 (28.0) | |
| 3 | Average (3-5) | 30 (12.0) | |
| 4 | Poor (<3) | 4 (1.6) | |

disfigurement as shown in **Figure-1**.

Figure-1 Distribution of Article Organ donation knowledge and attitude



86.8% expressed that they are comfortable regarding the prospect of organ donation after death and 9.6% said that they are not comfortable regarding organ donation after death. 62.30% believed that there is no influence of religion in organ donation. Only 20 % thought of donating their organs while they are alive. 84.4% had positive attitude towards organ donation and the mean attitude score was 11.46 with SD of 1.91 as shown in **Table-2**.

Table-2 Distribution of participants as per mean attitude scores (N=250)

| S No | Attitude (15) | Frequency (%) | Mean (SD) |
|------|------------------|---------------|--------------|
| 1 | Positive (10-15) | 211 (84.4%) | 11.46 (1.91) |
| 2 | Negative (<10) | 39 (15.6%) | |

No significant association was found between knowledge and attitude towards organ donation.

Discussion

A study conducted on knowledge and attitude towards organ

donation among interns and residents in a tertiary care hospital in Gujarat, India in 2023, shows that 88.8% knew about organ donation and were willing to donate their organ. [11] In the present study 97% were aware about organ donation and 90.4% supported organ donation. Another study conducted by Paul B, et al. on knowledge and attitude towards organ donation among people seeking health care in Kozhikode, Kerala shown that 58% participants had good knowledge about organ donation but 19% had poor knowledge. [12] This is in congruent with present study where excellent knowledge on organ donation is exhibited by 58.4% of participants and the mean knowledge was 7.5 out of a total score of 10.

A study was conducted by Bapat U, et al.[13] on organ donation, awareness, attitudes and beliefs among post graduate medical students says more than 75% of the subjects disbelieved that the body should be cremated without disfigurement. Whereas in the present study 51 % believed that organ donation leads to body disfigurement. It may be due to the fact that exclusion of medical professionals from the sample helped us to obtain layman belief about body disfigurement after organ donation.

Study on Knowledge and attitudes towards organ donation among students at An-Najah National University in 2022 also shows that 76% of respondents had a positive attitude toward organ donation [14] which is similar to the present study which has 84 % of respondents with positive attitude towards organ donation. Another study on Indian perspective of attitude and behavior of the general population towards organ donation shows that 52.8% of the participants had adequate knowledge and 67% had a positive attitude towards organ donation. [15]

Conclusion

This study throws valuable insight into public awareness, attitude and willingness to participate in organ donation. Study findings indicate that while majority of respondents support organ donation, a significant majority are either undecided or hesitant. Key barriers to organ donation include lack of awareness, religious or cultural concerns and misinformation. An outreach program was designed and carried out to raise awareness regarding organ donation based on the community's knowledge and mindset. The educational initiative contributed to the development of a culture of comprehension and dedication to organ donation as a means of saving lives.

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Authors' Contributions:

Saritha AS – Conceived the study and coordinated the outreach programs. Arya S Asokan – Made the tool, validated and collected data. Nagalakshmi Yeruva – Design and coordination of the study, Jilmy Anu Jose – Drafted the manuscript and designed the statistical analysis, Keka Chatterjee – Interpreted the results and helped in drafting the manuscript. All authors contributed in collection and analysis of data. Final manuscript read and approved by all authors.

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