

Organ donation: An assessment of Knowledge, Attitude and Practices among Medical Students

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Abstract

Introduction: Recently organ transplantation has become a safe and viable procedure for prolonging the lives of people suffering from organ failures, and as a result the need for organs has increased. Health care professionals are the most critical link in the organ procurement process and therefore, their knowledge, attitudes and behaviors are essential factors in the creation and promotion of an environment that has a positive influence on organ donation rates.

Objective: To assess the knowledge, attitude and practices towards organ donation among third year medical students in the study setting.

Materials and Methods: A cross sectional study was conducted among third year medical students at a Private tertiary care hospital in the rural area of Maduranthakam Taluk, Kanchipuram district, Tamil Nadu. Data was collected anonymously in a pretested and semi structured questionnaire after taking an informed consent and those who were absent on the day of data collection were excluded from the study. Data thus obtained was entered and analyzed using WHO Epiinfo software version 3.5.4.

Results: The present study demonstrated favorable attitude and adequate practices among medical students towards Organ donation despite their limitations/gaps in knowledge about the same. The study identifies several areas where educational interventions are necessary.

Recommendations: Need to introduce topic on Organ donation and transplantation in the undergraduate medical curriculum in order to improve knowledge of medical students. Further, appropriate use of mass media like television and newspapers will go a long way in creating awareness among them.

Keywords: Attitude, Knowledge, Medical students, Organ donation, Practices

Introduction

Organ transplantation is a boon to the field of medicine as it has saved thousands of lives worldwide. Technological advancements have made it a safe and viable procedure for prolonging the lives of people suffering with organ failures. Organ transplantation has been widely accepted as a solution for end-stage organ failure, and as a result the need for organs has increased.⁽¹⁾ Organ donation is defined as the removal of tissues from the human body, from a living or dead person, for the purpose of transplantation as a treatment.⁽²⁾ Despite the positive attitude of people towards organ donation, the actual number of organ donors is significantly smaller than the number of patients needing transplanted organs. Of those needing organ transplantation, approximately only 30% will receive a transplant.⁽¹⁾

The shortage of organs is a worldwide problem. The access of patients to organ transplantation, however, varies according to their national situations, and is partly determined by the cost of health care, the level of technical capacity and, most importantly, the availability of organs.⁽³⁾ There is a poor Organ Donation Rate – 0.26 per million in India, compared to some of the better performing countries such as America's 26, Spain's 35.3 and Croatia's 36.5 per million respectively.⁽⁴⁾ According

to a survey In India every year about: 500000 people die because of non-availability of organs, 200000 people die due to liver disease, and 50,000 people die because of heart disease. Moreover, 150,000 people await a kidney transplant but only 5,000 get among them.⁽⁵⁾

Globally, the knowledge for organ donation ranges from 60% to 85% and this trend has been reported to vary with the development status of the country. Motivation to donate organs has been shown to have an association with knowledge and awareness levels about organ donation.⁽⁶⁾ Existing studies have shown wide knowledge and attitude gaps among general public, which is worsened by religious attitudes and superstitious beliefs, generating fear and mistrust about organ donation.⁽⁷⁾ Further, frequent reports of illegal organ trafficking have deterred the public from making a voluntary organ donation.⁽⁸⁾ In this context, providing the general public by relevant information and correcting some of the misconceptions are likely to increase the number of individuals willing to donate organs.

It has been recognized that health care professionals are the most critical link in the organ procurement process, as they are the first individuals to establish a relationship with the potential donor's family.⁽¹⁾ Health care providers need to have a better understanding of their role in organ donation so as to encourage and

motivate the public in general and the family members of patients with brain stem death, in particular, towards organ donation. Evidence has suggested that health care professional's knowledge, attitudes and behaviors are essential factors in the creation and promotion of an environment that has a positive influence on organ donation rates.⁽¹⁾ With this background, the present study was done to assess the knowledge, attitude as well as practices towards organ donation among medical students, as they are soon going to be the health care professionals catering to a large segment of population.

Objective of the study

To assess the knowledge, attitude and practices towards organ donation among third year medical students in the study setting.

Materials and Methods

A cross sectional study was conducted among third year undergraduate students of medicine for a duration of 3 months from August - October 2015 at a Private tertiary care hospital in the rural area of Maduranthakam Taluk, Kanchipuram district, Tamil Nadu. Prior permission for the study was obtained from concerned authorities. Students were explained about the purpose of the study and data was collected in a pretested and semi structured questionnaire after taking an informed consent. The study was conducted anonymously and students found to be absent on the day of data collection were excluded. Data thus obtained was entered and analyzed using WHO Epiinfo software version 3.5.4.

Results

In the present study, Knowledge, Attitude and Practices were defined as the responses given by the undergraduate students to the administered questionnaire. Out of the 96 students in the third year, 8 were absent on the day of data collection and were excluded.

Table 1: Shows the distribution of study subjects according to their knowledge about Organ donation. It is clear from the table that all the 88 (100%) students had heard about Organ donation, but only one fourth i.e. 22 (25%) of them were aware of any center where organ donation can be done and only half of them i.e. 46 (52.3%) knew about the hospitals where organ transplantation was done. When enquired about different body organs which can be donated in India, majority i.e. 84 (95.4%) of them mentioned about Eye followed by Heart (92.04%), Kidney (87.5%) and Liver (85.22%) as seen in Fig. 1. Majority of the students i.e. 65 (75.3%) however believed that there is a danger that donated organs could be misused, abused or Misappropriated as seen in the Table 1.

Table 1: Distribution of study subjects according to their knowledge about Organ donation (n = 88)

SL. No.	Questions	Number of subjects N (%)	
		Yes	No
1	Have you ever heard about organ donation?	88 (100)	0 (0)
2	Do you know any center where organ donation can be done?	22 (25)	66 (75)
3	Do you know any hospital where organ transplant is done?	46 (52.3)	42 (47.7)
4	Do you know anybody who has received any organ?	7 (8)	81 (92)
5	Do you know anybody dead/alive who has donated any organ?	14 (15.9)	74 (84.1)
6	Is it true that only organs of young people can be donated?	3 (3.4)	85 (96.6)
7	Is there any law related to organ donation in our country?	78 (88.6)	10 (11.3)
8	Do you believe that there is a danger that donated organs could be misused, abused or misappropriated?	65 (73.9)	23 (26.1)

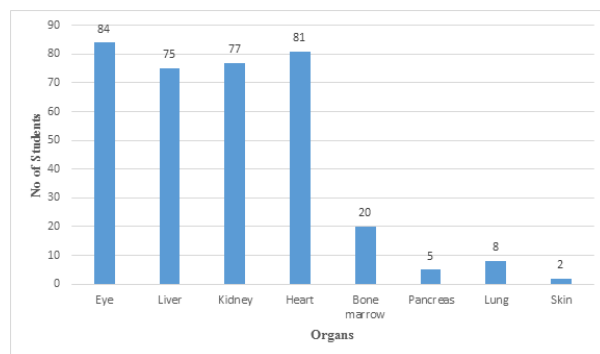


Fig. 1: Distribution of study subjects according to their mention of organs which can be denoted

Note: No of students may exceed sample size as multiple options were allowed

Fig. 2 shows the distribution of study subjects according to the source of information about Organ donation. Mass media like TV and Newspapers have played a major role in imparting awareness regarding Organ donation among students besides doctors and friends. Table 2 reveals distribution of study subjects according to their attitude towards Organ donation. Majority of the students i.e. 78 (88.63%) were ready to donate their organs if need comes and two third of them accepted that they would allow organ donation from a member of their family after Brainstem death. However, only few of them i.e. 15 (17%) believed that they might ever need an organ transplant.

Table 2: Distribution of study subjects according to their attitude towards Organ donation (n = 88)

SL. No.	Questions	Responses	No. of subjects N (%)
1	Do you think you might ever need an organ transplant?	Yes	15 (17)
		No	01 (1.1)
		Don't know	72 (81.8)
2	Would you like to donate your organ if needed?	Yes	78 (88.6)
		No	10 (11.4)
3*	When do you like to donate?	Anytime	14 (15.9)
		After death	64 (72.7)
4*	Whom would you like to donate to?	Stranger	2 (2.3)
		Relative	7 (8.0)
		Anybody	69 (78.4)
5	If you have to decide, would you allow organ donation from a member of your family after Brainstem death?	Yes	59 (67.0)
		No	9 (10.2)
		Don't know	20 (22.7)
6	Do you think donating an organ can cause any harmful effects / complication to you?	Yes	7 (8.0)
		No	49 (55.7)
		Don't know	32 (36.4)

* Only those who have answered as "yes" to question no. 2, were considered here (n = 78).

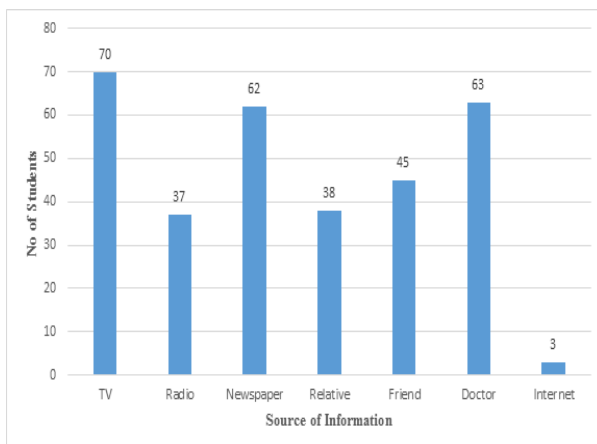


Fig. 2: Distribution of study subjects according to the source of information about organ donations

Note: No of students may exceed sample size as multiple options were allowed

When enquired about their practices towards Organ donation, about one fourth of them i.e. 26 (29.54%) said

that they have already made some arrangements to donate their organs after death as seen in Fig. 3.

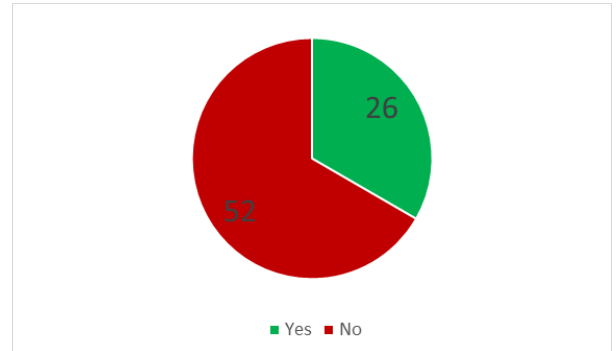


Fig. 3: Distribution of study subjects according to status of arrangements being made to donate their organs after death

Discussion

A successful Organ donation program requires adequate knowledge, favorable attitude as well as commitment among Healthcare professionals towards this life-saving procedure, as they are the first individuals to establish a relationship with the potential donor's family and to initiate the discussions surrounding the option of organ donation. They must be prepared to answer questions on organ donation and transplantation and as future physicians, medical students will become part of this critical link.

The level of awareness and knowledge towards different aspects of organ donation was unsatisfactory among medical students in our study. Though all of them heard about Organ donation and majority could tell the most common organs which can be donated, they had difficulties with many other concepts related to it. Our study findings are comparable to findings by many other studies^(1,2,6,7,9,10,11) done in different parts of the world. On the contrary, Satish KV et. al.⁽⁸⁾ in India and Alsaied O et. Al⁽¹²⁾ in Qatar have found out satisfactory level of knowledge/awareness towards organ donation among study participants. This could be due to differences in the study settings, differences in the educational status, job profiles and experiences of the study participants, differences in the study tools etc. The most common source of information on organ donation was Television in our study followed by Doctor and Newspaper. Similar to the findings of our study, a study by Sucharita ST et.al² in Tamil Nadu of India, Saleem T et. al⁽⁶⁾ and Khan N et. Al⁽¹³⁾ in Pakistan and Alghanim SA⁽¹¹⁾ in Saudi Arabia have found Television as the major source of information among study participants.

More than 80% of the study participants in our study accepted that they would donate their organs if need comes and more than 60% even agreed to donate organs from their family members after brainstem death. Our study findings were comparable to many other studies^(1,2,8,10,11,12) both within and outside the country,

where the authors have found positive and favorable attitudes of their study participants towards Organ donation. With regard to their practices, about one third of those willing to donate their organs told that they have already made some arrangements for the same after death similar to the findings of few other studies.^(1,6)

Conclusion

The present study demonstrated favorable attitude and adequate practices among medical students towards Organ donation despite their limitations/gaps in knowledge about the same. The study identifies several areas where educational interventions are necessary. The introduction of the subject in the curriculum could address some of these deficiencies. Television and other mass media can also be used to disseminate information.

Acknowledgements

The authors thank Dr. R. Annamalai, Managing Director, Karpaga Vinayaga Educational Trust for overall motivation and support.

Funding: Self

Conflict of interest: None declared

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