



KNOWLEDGE, ATTITUDE AND PRACTICES OF MEDICAL STUDENTS REGARDING ORGAN DONATION

Sahana B.N.¹, Sangeeta M.²

¹Assistant Professor, Department of Anatomy, MVJMC and RH, Bangalore, KA, India; ²Professor and Head, Department of Anatomy, MVJMC and RH, Bangalore, KA, India.

ABSTRACT

Introduction: Medical advances have resulted in transplant surgeries today that are very successful. The demand for organs for transplantation continues to vastly surpass the inadequate supply capacity all over the world. Healthcare professionals are the key link in the organ procurement process. Healthcare professional's knowledge, attitude and practices are essential factors in fostering an environment that positively influences organ donation rates.

Materials and Method: A total of 141 first year Medical students were included in the study. Data of this cross sectional study was collected by self-administered questionnaire.

Results and Conclusion: Percentage of correct responses was calculated to assess the knowledge, attitude and practices and we documented the limitations in knowledge and practices regarding organ donation in first year medical students. The need of the hour is to introduce the subject at an early stage in medical curriculum to bridge the gap that exists in their knowledge on the same.

Key Words: Organ, Campaign, Donor, Recipient

INTRODUCTION

Organ transplantation is a story of remarkable achievement and an ongoing challenge¹. Medical advances have resulted in transplant surgeries today that are very successful. Organ transplantation has become the preferred treatment for many terminal end stage organ diseases. Very often the best solution is to replace the damaged organ with the healthy one². Organs are donated by individuals at the time of their death and some by living donors. Organs that are damaged and non-functioning due to accidents, burns, and illness as a result of type II diabetes, cardiovascular disease, infections, etc. can now be replaced by using donated organs in a transplantation procedure that extends life and improves the quality of lives³. The demand for organs for transplantation continues to vastly surpass the inadequate supply capacity all over the world. The number of patients awaiting organ donations is increasing every day. However, the number of organ donations is significantly lower than the number of patients waiting for organ donations⁴. A better understanding of the barriers, facilitators and opportunities for organ donation and transplantation is needed in India.

State governments are being aided by the NGO's to establish safety systems to facilitate organ donation so as to meet the demands of the huge requirement in the country⁵. Despite the positive attitude towards organ donation, the actual number of organ donors is significantly smaller than the number of patients needing transplanted organs⁶. The shortage in organ supply is due to lack of awareness and correct knowledge among public, myths and misconception surrounding organ donation due to religious and cultural barriers leading to hesitancy in donation of organs⁵. Healthcare professionals are the key link in the organ procurement process. Healthcare professional's knowledge, attitudes and practices are essential factors in fostering an environment that positively influences organ donation rates⁷. Therefore enhancing a physician's knowledge of and their association in the donation and transplantation process is achieved by educational programmes in medical schools and to achieve this goal the knowledge, attitude and practices of medical students should be assessed at an earlier stage as they are the future physicians of the country.

Corresponding Author:

Sahana B.N., Assistant Professor, Department of Anatomy, MVJMC and RH, Bangalore, KA, India;
E-mail: dr.sahana_nanjappa@yahoo.com

Received: 26.06.2015

Revised: 21.07.2015

Accepted: 13.08.2015

MATERIALS AND METHOD

A total of 141 first year Medical students from MVJ Medical College and Research Hospital, Bangalore were included in the study. Sample size was selected by convenient sampling and those who were present and gave oral consent were included in the study. Data of this cross sectional study was collected by self administered questionnaire. The questionnaire consists of section A with demographic information such as age, gender, religion, education. Section B included 25 questions to assess the level of knowledge, attitude and practice towards organ donation among first year Medical students. The data was analysed using Microsoft Excel 2010. Out of 141 students 73 were females and 68 were males. The age of the study participants was between 17 to 21 years. Among 141 participants, 130 were Hindus, 4 were Muslims, 6 were Christians and 1 was a Buddhist student. All the students belonged to first year MBBS.

RESULTS

Table 1: Findings of the study

Particulars	Yes	No	Don't Know
Are organ & tissue transplant experimental	77	31	33
Can organs be donated after death	124	14	3
Can organs be donated when alive	97	39	5
Can organs be donated after brain death	92	25	24
Do you think there is a shortage of organs in India for transplant	89	13	39
Have you heard of organ donation act	91	41	9
Can you sell your organs	50	71	20
Do you have to pay to be an organ donor	24	92	25
Is there any age limit to donate organ	55	41	45
Will the identity of the recipient be revealed to the donor family	30	52	59
Organ/tissue donation after death causes disfigurement to the donor	27	58	56
Does your religion allow organ donation	88	9	44
Do you know where you can register for organ donation	20	71	50

Do you feel that donated organs could be misused/abused	81	37	23
Can a HIV patient donate organs	10	93	38
Can a cancer patient donate organs	17	78	46
Is there a need for having effective law to govern the process of organ donation	104	11	26
Do you think education about organ donation should be made a part of primary education	122	11	8
Can one accept money or any other benefits for donating organs	43	62	36
Is there a history of organ donation in your family	13	107	21
Will you motivate others to donate organs	108	12	21
Will you like to work in organ donation campaign	92	34	15
Will you donate your organs	92	30	19

Assessment of knowledge: Percentage for the correct responses was calculated. Only 21.9% responded the organ transplantation is no more under experimental stage. A majority of 87.9% responded that organs can be donated even after death. 68.7% responded that organs can be donated when alive. 65.2% responded that organs can be donated after brain death. 63% were aware that there is a shortage of organs for transplant. 64.5% were aware of the organ donation act. 50% responded that organs cannot be sold. 65% were aware that they need not pay to become an organ donor. Only 29% responded that there is no age limit to donate organs. 75.8% responded that organs can be donated to anyone and not just family members. Only 36.8% responded that the identity of the recipient will not be revealed to the donor family. 41% responded that organ donation will not cause any disfigurement to the donor after death. Only 7% responded that HIV patient can donate organs and 12% responded that cancer patient can donate organs. 43.9% responded that money or any other benefits should not be accepted for donating organs.

Practice of organ donation: 62.4% were aware that their religion allows organ donation. 50.3% were not aware where to register for organ donation. 9.2% had a family history of organ donation.

Attitude of the students: 57.4% were of the opinion that donated organs could be misused/abused. 73.7% were of the opinion that an effective law to govern the process of organ

donation was needed. 86.5% were of the opinion that education about organ donation should be made a part of primary education. 76.5% were willing to motivate others to donate organs. 65.2% were willing to work in organ donation campaign. 65.2% were willing to donate organs.

The reasons given by the students who were willing to donate organs are as follows;

- 65(68.4%) students: Organ donation gives life to a person.
- 6 (6.5%)students: Influenced by reading article.
- 2 (2.2%)students: Friend’s family received or donated organ to others.
- 4 (4.3%)students: Due to other reasons.
- 15 (16.3%)students: Gave no specific reason for their willingness to donate.

The reasons given by the students who were not willing to donate organs are as follows;

- 9 (30%)students: Dislike of separation of organ from body
- 4 (13.3%)students: Religious restriction.
- 7 (23.3%)students: Objection by family.
- 1 (03.3%)student: Unsuitable cause of old age or disease.
- 7 (23.3%)students: Due to other reasons.
- 2 (6.6%)students: Gave no specific reason for not willing to donate organ.

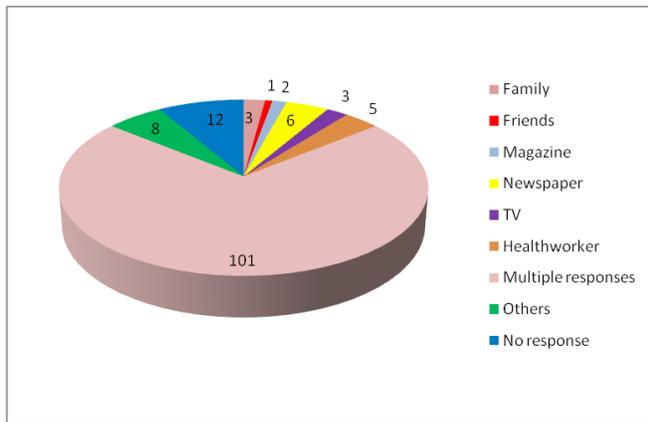


Figure 1: Source of information about organ donation

DISCUSSION

The transplant of organs has become a routine surgical procedure and is no longer experimental, ironically majority of them in our study thought that it was still under experimental stage. Organs can be donated at the time of death, when alive and by brain dead patients. There is a scarcity of organs for transplantation in India and organ donation act enables people to register themselves to donate organs. The buying and

selling of organs is illegal and at the same time one need not pay anything to donate his/her organ.

No set age limit exists for organ donation, knowledge pertaining to this was found to be poor among the study group. The identity of the recipient and donor are not disclosed to each other. Donation does not disfigure the body or interfere with funeral arrangements. All major religions in the country approve of organ donation and consider it a gift. HIV and cancer patients can also donate organs under certain circumstances and the knowledge regarding to this was found to be poor in the study group. Organ donation should be an act of charity and one shouldn’t accept money for the same. It was encouraging to know that 9.2% had a family history of organ donation.

In our study 65% were aware that they need not pay to become an organ donor which was lower compared to study done by Juan M et al. where 95.7% correctly understood that the cost of organ donation are not charged to the donors family⁶. In a study done by Donal McGlade et al. 82% responded that their religion allows organ donation and 67% responded that organs can be donated after death⁸. Whereas in our study 62.4% were aware that their religion allows organ donation and 87.9% responded that organs can be donated after death. In a study done by Prasanna Mithra et al. 95.4% were aware that organs can be donated when alive⁹, in our study 68.7% were aware about this.

It was noted that in our study 76.5% of the first year medical students were willing to donate organ. This figure was higher compared to the study done by Nisreen Feroz Ali et al in 2013 in which 158 Medical students participated and only 45% were willing to donate organ¹⁰. In a study done by Sree T Sucharitha et al 53.5% out of 213 medical students were willing to donate organ which was lower compared to our study⁵.

CONCLUSION

Our study documents, the limitations in knowledge and practices regarding organ donation in first year medical students. The need of the hour is to introduce the subject at an early stage in medical curriculum to bridge the gap that exists in their knowledge on the same. Medical curriculum should incorporate modules specifically directed at increasing factual knowledge and addressing problems that impede organ donation. It was however good to find out that majority of the students had a positive attitude towards organ donation and such students should be further encouraged and educated about organ donation. A well informed healthcare provider will certainly play a vital role in motivating the community to donate organs.

ACKNOWLEDGEMENT

Authors acknowledge the immense help received from the scholars whose articles are cited and included in references of this manuscript. The authors are also grateful to authors / editors / publishers of all those articles, journals and books from where the literature for this article has been reviewed and discussed.

REFERENCES

1. Watson C J E, Dark J H. Organ transplantation: historical perspective and current practice. *British Journal of Anaesthesia* 2012;108(S1):129-142.
2. Manojan K K, Raja R, Nelson V, Beevi N, Jose R. Knowledge and attitude towards organ donation in rural Kerala. *Academic Medical Journal of India* 2014;2(1):25-27.
3. Hodge F S, Bellanger P, Norman C. Organ donation and transplantation: A dialogue with American Indian healers and western health-care providers. *American Indian Culture and Research Journal* 2011;35(3):79-90.
4. Gungormuş Z, Dayapoglu N. The Knowledge, Attitude and Behaviour of Individuals Regarding Organ Donations. *TAF Prev Med Bull.* 2014;13(2): 133-140.
5. Sucharitha S T, Sirki R, Dugyala R R, Mullai, Priyadarshini, Kavya et al. Organ donation: awareness, attitudes and beliefs among undergraduate medical students in South India. *NJRCM* 2013;2(2):83-88.
6. Juan M, Nicole M, Maria C, Omar E, Esther A. knowledge of and attitudes towards organ donation: A survey of medical students in Puerto Rico. *PRHSJ* 2013;32(4):187-193.
7. Mekahli D, Liutkus A, Fargue S, Ranchin B, Cochat P. Survey of first-year medical students to assess their knowledge and attitudes toward organ transplantation and donation. *Transplant Proc.* 2009;41(2):634-638.
8. McGlade D, Pierscionek B. Can education alter attitudes, behaviour and knowledge about organ donation? A pretest and posttest study. *BMJ Open* 2013;3:e00396.doi:10.1136/bmjopen-2013-003961.
9. Mithra P, Ravindra P, Unnikrishnan B, Rekah T, Kanchan T, Kumar N, et al. Perception and attitudes towards organ donation among people seeking healthcare in tertiary care centers of coastal South India. *Indain J Palliat Care* 2013;19:83-87
10. Ali N F, Qureshi A, Jilani B N, Zehra N. knowledge and ethical perception regarding organ donation among medical students. *BMC Medical Ethics* 2013, 14:38 doi:10.1186/1472-6939-14-38.