

Original Research Article

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A study of effect of special lecture on awareness related to organ donation among second year undergraduate medical students of a Medical College in a Metropolitan City, Maharashtra.

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Abstract

Objective :

- To understand the awareness about organ donation among the Undergraduate students.
- To find the effect of special lecture on the knowledge and practice of Undergraduate students related to organ donation.

Design: Pre-Post interventional study.

Setting: Dept. of Community Medicine LTMMC & GH

Participants: Undergraduate Medical students of 2nd year.

Main outcome measures: Baseline Knowledge, attitude and practice on various aspects of organ donation was found, subsequently post lecture change in knowledge and practice was assessed and analyzed. Recommendation was given regarding dispersion of their knowledge for improving community awareness.

Results:

Majority of the students were male (72%) , mean age of the students was 21±1.2yr. audiovisual media such as television (36.25%), newspaper (23.75%) , magazines (16.25%) and radio (11.25%), were the major sources of information about organ donation. Pre-test results showed lack of knowledge and practice among the students . Level of Knowledge and practices increased after lecture and the positive change was found to be significant esp. related to correct knowledge of brain stem death and counseling and motivation about organ donation to their relatives and friends.

Conclusions:

Baseline knowledge and practice regarding organ donation was poor among the students which showed a significant improvement after special lecture. Thus the medical curriculum should increase medical students' awareness of the organ shortage problem. The donor registration system should be made more convenient and public education is recommended to correct misconception.

Citation: Undergraduate Medical students, Pre-Test, Post-Test, Organ donation.

Introduction

The history of organ transplantation dates back to 1906 when Jaboulay attempted to treat two patients with renal failure by transplanting a goat kidney into one and a pig kidney into the other; in both cases, he joined the renal vessels to the brachial vessels. Both transplants failed and both patients died.¹ One limitation to transplantation then, as now, was the lack of suitable donor organs.

Worldwide, more than 20% of patients on transplant waiting lists die every year due to shortage of donor organs. The statistics from the Indian subcontinent are very poor and only 499 cadaver transplants including heart, liver and kidney have been performed in India from the year 2000 till date.³ Each year thousands of individuals wait for organs to be donated for transplantation. There remains therefore, a great need for increasing organ donation and harnessing of donor organs. The cadaver organ donation program in India is still in its infancy and is hindered by the lack of adequate awareness about the criteria and guidelines for declaration of brain-death, among doctors. As per the ZTCC data of LTMMC & GH there were 42 cadaver donations out of which 39 were from private hospital and 3 from the public hospitals. Rapid advancement in research pertaining to transplantation of organs and tissues have however, failed to meet the increasing demand for donor organs resulting in severe shortage of donor organs. Organ transplantation is the most preferred treatment modality for end-stage organ disease and organ failures. It offers a better quality of life and also has better long-term survival benefits.

Health-care professionals are the most critical links in the organ procurement process because they are the first individuals to establish relationship with the potential donors' family and to have the opportunity to raise option of donation. Educating health-care professionals about organ donation process appears to be an important factor in maximizing the benefits from the limited organ donor pool. Perhaps increased social and cultural awareness about organ donation in the community could ease the

confusion, doubts, superstitions and misconceptions in the minds of the public.

An assessment of knowledge, attitudes and beliefs of the undergraduate students' towards organ donation would help to plan sensitization, and increase awareness programs at their level and to propagate knowledge at the community level in addition. It is obvious that education about organ donation is lacking in the medical curriculum at the undergraduate and the postgraduate levels².

Justification:

There is a great need for increasing awareness about organ transplantation and organ donation among the general public, beginning with the health-care professionals who in turn, can motivate the public. As future doctors, medical students will take up the role of promoting organ donation. However, many lack relevant basic knowledge and are influenced by personal attitudes and biases. Hence, the need of the study. This is the first attempt to find out awareness among undergraduate medical students regarding organ donation.

Objectives:

The objectives of the present study included the following:

- a) To understand the awareness about organ donation among the postgraduate students.
- b) To find the change in knowledge and practice of the students after special lecture.

Methodology

1. Study design: Pre-Post Interventional study.

2. Place of study:

Medical college Department of Community Medicine

3. Proposed duration of study: 2 months

4. Study subject: Undergraduate Medical students of batch 2014

5. Sample size:

100 Undergraduate Medical students.

6. Sampling method: Convenient sampling method (Universal sampling).

Standard operative procedure:

Pre-test will be conducted. Data of pre-test will be analyzed using proportions. Further special lecture will be planned and post-test will be executed after it. Data of pre and post test will be compared and analyzed to assess the change in the knowledge before and after lecture. Data will be analyzed using SPSS.

Results

The study population consisted of 100 respondents of whom, 81 participated in the study. As shown in Table 1, the mean age was 21.8 ± 1.20 years; Out of the total students 59 were male, 22 were female. In religion there were Hindu 59 (71.2%), Muslim 5 (6.25%), Christian 2 (3.75%) and others 15 (18.75%). Among the students, 14 (16%) were from Mumbai and 67 (84%) were Non-Mumbai. As per table 2 the audiovisual media such as television (36.25%), newspaper (23.75%), magazines (16.25%) and radio (11.25%), were the major sources of information about organ donation.

Table 1 Demographic data of the respondents

Variable	Number	Percentage
<i>Gender</i>		
Male	59	(72.8%)
Female	22	(27.2%)
<i>Religion</i>		
Hindu	59	(71.2%)
Muslim	5	(6.25%)
Christian	2	(3.75%)
Other	15	(18.75%)
<i>Domicile</i>		
Mumbai	14	(16%)
Non-Mumbai	67	(84%)

Table 2. Sources through which knowledge of Organ donation was first known (n=81)

<i>Source of knowledge</i>	<i>No. of Students (%)</i>
Television	29 (36.25%)
Newspaper	19 (23.75%)
Radio	9 (11.25%)
Magazine	13 (16.25%)
Posters	7 (8.75%)
Lecture	3 (3.75%)
Total	81

Figure 1 of Table 1

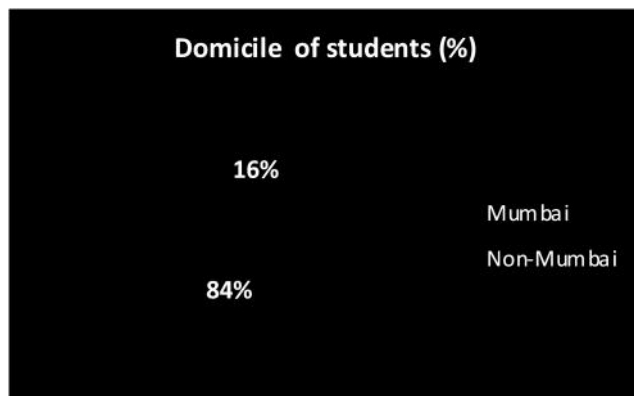
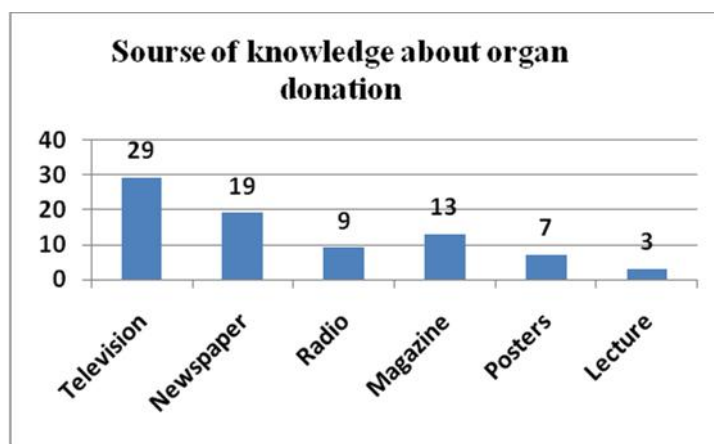


Figure 2 of Table 2



All the questionnaire were divided into belief, knowledge and practice the result of the questionnarie were as follows:

Sr. No.	Questions asked	Pre-Test Value (Positive)	Post- Test Value (Positive)	P value
1)	Positive belief regarding organ donation	8 (10.4%)	11 (12.5%)	1.000
<i>Knowledge of the students</i>				
2)	Organ donation possible after death	36 (46.2%)	54 (59.2%)	0.004*
3)	List of organs that can be donated	39 (49%)	72(82%)	0.098
4)	Regarding hours before which organ can be donated.	17 (22%)	58(65%)	0.029*
5)	Difference between Brain stem Death and Coma?	12(13.8%)	52 (55%)	0.007*
6)	Regarding Organ Donor Card	12 (14%)	54(59%)	0.005*
<i>Practice of organ donation among student</i>				
7)	Personal willingness to donate organ	18 (23.4%)	51(54.6%)	0.076
8)	Students recommending organ donation among relatives and friends	14 (17.2%)	59(67.8%)	0.0032*

Discussion

Transplant technology continues to improve and organ transplantation has become the treatment of choice for organ failure³. The magnitude of organ retrieval for the execution of a successful deceased donor program is heavily dependent upon the level of knowledge and attitudes of the medical professionals. The attitude of Undergraduate Medical students can have far-reaching effects on increasing organ donation and transplantation, as they occupy a unique position between lay public and qualified professionals.⁵

Awareness regarding organ donation before lecture.

A Large majority of subjects were unaware of organ donation and cadaver donation in the beginning of the study. The major source of information was through media, mainly television, radio and newspaper. As per study by Rumsay et.al. a similar pattern of frequently cited media sources of organ donation has been reported.⁴In a study on university students in Brazil aiming to assess awareness and opinions about organ donation, it was concluded that there are different opinions and different levels of awareness among students considering age, religion, and religious practices and level at school.⁶ As per the present study only 13.8% students had correct knowledge about brain stem death, as a result of lecture their was considerable difference in knowledge about brain stem death. The concept of cadaver was understood as brain-death by only 25% of the study population. Majority of the respondents understood cadaver as dead body and 20% did not respond. These findings are similar to a study, which concluded that there is a poor understanding of the concept of brain-death and organ donation even among the medical students.⁷

Responses related to attitudes towards organ donation. As per the present study willingness to donate the organ was seen among 23% of the student. As per the study by Gupta et.al large majority (89.0 %) were willing to donate their organs, a small percentage of the respondents were not willing⁵.” According to Usha Bapat et.al.

majority were willing to accept an organ from the family and cadaver, while 13% were not willing. In a similar study, it was reported that most respondents would be willing to take some form of transplanted organ or tissue if it was needed to maintain life⁸. As per Edvin et.al Culture and religion play much less prohibitive part in determining the level of organ donation. There is a desire to be aware of the religious stances so that people can make a more informed decision⁹. None of the religions object to organ donation in principle although in some, there is varying thought. As per Cantwell et.al Ninety-six percent of the respondents agreed that religion does permit donation. There was a statistically significant correlation between attitudes, beliefs and demographics¹⁰.

Awareness and Practice after special lecture:

Knowledge related questions like possibility of organ donation after death , Hours within which organs can be retrieved, Regarding Organ Donor Card showed significant difference ($p < 0.05$).

Among the practice related question willingness to donate organ had not shown any statistical significance but the change was considerable. On the other hand willingness to recommend organ donation among the relatives and friends showed a statistically significant change ($p < 0.05$).

Conclusion

In conclusion, our questionnaire study suggests that majority of the respondents were not aware of organ donation. And also there is a significant demand for organ donation in present field practice area (as per the hospital data). This demand can be alleviated by encouraging people to donate organs through efforts from relevant authorities. Undergraduate medical students of present will be the professionals of future. The undergraduate medical curriculum should include courses on organ transplantation or atleast the part of the syllabus, to better equip future doctors with knowledge on organ donation issues. Health educational strategies should be targeted at personal, family, and community levels. Coordinated activities including display of IEC

material, education campaigns, and knowledge are of great importance for opening a modern public debate. At last the policy developers and health care providers should increase donation consent rates in the future.

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