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Awareness of Organ Donation among Fresh Students in Medical Field

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ABSTRACT

Many deaths due to organ failure can be avoided if organ donors are available. Lack of donors may be because of the lack of knowledge and awareness of many issues about organ donation. In the present study, an attempt had been made to probe this issue from the fresh students in medical field because through them the message can reach the public through their direct contact with people in the out-patient department, admission wards and medical camps. It is a cross-sectional questionnaire-based study involving Madha Group of Educational Institutions and Tagore Medical College & Hospital in Chennai. 287 male and female students of 1st year medical, dental and nursing colleges participated in the study. A questionnaire with 55 questions on various aspects of organ donation was given to them to answer by choosing “yes/no/don’t know” or “right/wrong/don’t know” in 30 minutes. The results showed that about 60% of the students had sufficient knowledge about the storage of harvested organs and compatibility check. About 90% of them were aware of the need of organ donation and they extended their support for the act. But hardly 7% of them registered for the same. They were also weaker in the areas like time lapse between harvesting and transplanting the organ, who could donate to whom, cadaver donations, methods of promoting organ donation and regarding the payment to be made to the donors or his relatives. After collecting the papers for evaluation, the participants were educated with more emphasis on the weaker areas.

Key Words: Awareness, Cadaver, Compatibility, Harvested organs, Legal issues, Organ donation

I. INTRODUCTION

There is a saying that the best among all donations is the food donation. But organ donation stands above all because it saves the life of the person and make him enjoy other benefits. Importance of organ donation can be understood if we know the fact that hundreds of people die due to organ failure every year simply because of lack of organ donors. M. C. Misra, chief of the Jai Prakash Narayan Apex Trauma Centre at the All India Institute of Medical Sciences (AIIMS) is of the opinion that the number of willing donors in India is still very 'dismal' in spite of amendment of the law in this regard in 2008 [1]. In India, about 200,000 kidneys and 100,000 livers are needed every year but only 2 to 3% of the requirement is fulfilled [2].

Fortunately, it is gaining the momentum, thanks to the introduction of The Transplantation of Human Organs Act in India in 1994 [3]. Many states in India adopted this act and enthusiastic medical professionals and philanthropists joined hands to move the matter further forward. Tamil Nadu and Andhra Pradesh (undivided) lead the list where some hospitals and non-government organizations like Multiple Organ Harvesting Aid Network (MOHAN) foundation started an organ sharing network since 2000 through which 616 organs and tissues were retrieved in these two states [3]. Yet the progress is not equal to the need. In 2008, the Government of Tamil Nadu streamlined the systems and procedures for organ donation and transplantation by adopting the organ sharing registry developed by MOHAN Foundation and starting the website of Tamil Nadu Network for Organ Sharing (www.tnos.org) with the help of both government and private hospitals, non-government organizations (NGOs) and the State Health departments [3]. Because of these statewide and nationwide efforts, there was a tremendous improvement in the number of willing organ donors in the year 2012, resulting in retrieval of 530 organs from 196 multi-organ donors with national organ donation rate of 0.16 per million populations [3].

In spite of all these efforts, we have to accept the fact that awareness of the organ donation is still in dearth. The reasons for this pathetic scenario may be the lack of awareness about the need of organ donation and the ignorance of common men about the importance, procedures, benefits and legal issues of organ donation. So, it is time to question ourselves in the medical field how best this situation can be handled and what must be our contribution in this regard. The best way to start this is to promote the awareness of the college students, especially those in the medical field, towards organ donation because they will be the most suitable persons to carry the message to the community. Through them it is possible to

increase the social support for organ donation and motivate people to register as organ donors. [4]. As a first step, it is necessary to assess the personal views, knowledge, attitudes and beliefs of the students in medical field regarding organ donation. Keeping this in mind, an attempt had been made to do a questionnaire -based cross sectional study and test the depth of the knowledge on organ donation among fresh students in the medical, dental and nursing colleges.

II. MATERIALS AND METHODS

It is a cohort study, based on the questionnaire developed by the faculty in the department of Physiology, Madha Medical College & Research Institute at Chennai. It was a specially designed self-administered demographic profile with 55 questions that included questions on age, sex, course of study, religion, awareness, attitudes, beliefs and religious and legal issues towards organ donation (Tables 1 to 10, Table 13 and Table 14). 287 boys and girls belonging to medical (129), dental (108) and nursing (50) courses from Madha Group of Educational Institutions and Tagore Medical College in Chennai participated in this study. All of them were first year students in the age group of 17 to 25 years. The study was done within one month of joining the courses.

Ethical clearance was obtained from the respective Institutional Ethical Committees. Students were briefed about the background and purpose of the study and written Informed consent was obtained from all of them after assuring about the confidentiality and ethical principles. A pilot study was conducted with the question-answer session among 10 students from each division to assess the clarity of questions and the time taken to answer them. After suitable modifications, the time taken to answer all the questions was fixed as 30 minutes. The questioner was distributed and the students were asked to indicate their responses either as right/wrong/don't know, or agree/disagree/don't know or yes/no/no comments. They were instructed to give their own answers and consultation was not permitted. After answering, the answer sheets were collected for evaluation. Data were entered in Microsoft Excel spread sheet and analysis was done to express the results in percentage.

Set of questions answered by the participants are given in Tables 1 to 10 which also carry the correct answers.

Qs.No	Questions	Answers
1	Occurs after road transport accident	Right
2	Occurs due to injury of brain blood vessels	Right
3	It is a legal death	Right
4	Vital organs are alive after brain death	Right
5	Organs are fit for donation after brain death	Right
6.	Organs to be taken within 24 hours of brain death	Wrong

Qs.No	Questions	Answers
1	Denied because of religious reasons	Wrong
2	Can be done by chronic hypertensive patients	Wrong
3	Can be done by chronic diabetes mellitus patients	Wrong
4	Can be done by bronchial asthma patients	Wrong
5	Can be done by individuals suffering from infectious diseases	Wrong

Qs.N	Questions	Answers
1	Immediately after removal	Wrong
2	Heart within 5 hours of removal	Right
3	Liver and pancreas within 12 to 18 hours or removal	Right
4	Kidney within 24 hours of removal	Right

Qs.No	Questions	Answers
1	After harvesting, the organ should be stored in freezing environment	Right
2	After harvesting, organs can be stored for several years before	Wrong

Q.No	Questions	Answers
1	Blood group compatibility between the donor and the recipient – a must	Right
2	HLA compatibility between the donor and the recipient – a must	Right

Qs.No	Questions	Answers
1	Adult kidney can be transplanted to new born baby	Wrong
2	New born's kidney can be transplanted to an adult	Right
3	From infectious donor to the non-infectious recipient	Wrong
4	From cancer donor to non-cancer recipient	Wrong

Qs.No	Questions	Answers
1	Immunosuppressant to the recipient before transplantation to prevent	Right
2	Immunosuppressant to the recipient after transplantation to prevent	Right
3	Immunosuppressant after transplantation increases the risk of infection in the recipient	Right
4	Many months of isolation of the recipient in sterile environment after transplantation	Wrong
5	Regular checkup of the recipient after transplantation	Right

Qs.No	Organ	Answers	Qs. No	Organ	Answers
1	Kidney	Right	6	Heart valve	Wrong
2	Cornea	Wrong	7	Islets - pancreas	Wrong
3	Liver	Right	8	Uterus	Wrong
4	Skin	Wrong	9	Spinal cord	Wrong
5	Bone	Wrong	10	Brain	Wrong

Qs.No	Organ	Answer	Qs. No	Organs	Answers
1	Heart	Right	6	Heart valve	Wrong
2	Lungs	Wrong	7	Islets-pancreas	Wrong
3	Liver	Right	8	Uterus	Wrong
4	Skin	Wrong	9	Spinal cord	Wrong
5	Bone	Wrong	10	Brain	Wrong

Qs.No	Questions ts	Answers
1	An increase in awareness can motivate people favoring organ donation	Right
2	Willingness for organ donation can be displayed in the driving license	Right
3	National Network for Organ Sharing (NNOS) is present in T.Nagar, Chennai, Tamil Nadu	Wrong
4	I can become an organ donor by filling the online form 8, designed by the Transplant of Human Organ	Wrong
5	Organ donors can carry a "Donor Card" always with them	Right

III. RESULT

The study population consisted of 287 respondents in the medical field, of whom, 129 were MBBS (M) students, 108 were Dental (D) students and 50 were Nursing (N) students. On the whole, girls were more than the boys (67.3% and 32.4%). Among medical students, 55.4% were girls and

Fig.1 Number of respondents

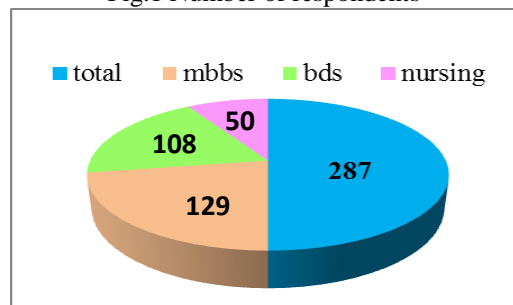


Fig.2 Percentage of boys and girls

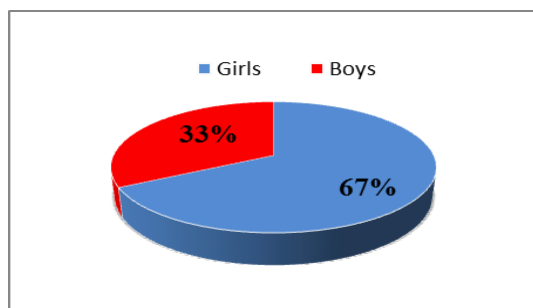
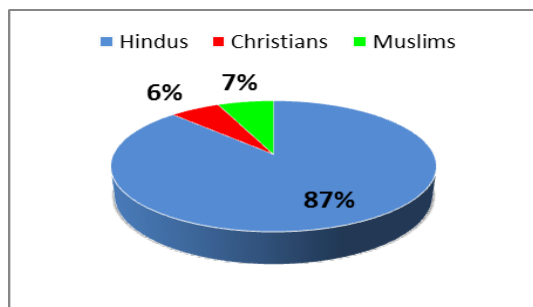


Fig 3. Religion-wise distribution of participants



On the Whole:

42.6% were boys. Dental population had almost double the number of girls (girls-63.9% and boys-36.1%). In nursing, all participants were girls (100%). Of the total participants, majority of them were Hindus (87.5%) whereas 5.9% were Christians and 6.6% were Muslims. (Fig. 1, 2 and 3)

All questions were answered by all the participants. All three groups were almost equal in giving correct answers (M-62.6%, D-60.1% and N-58.7%), wrong answers (M-25.6%, D-20.9% and N-28.6%) and “no comments” and “don’t know” answers (M-12.1%, D-19.0% and N-12.1%). (Table 11)

Answers	Medical	Dental	Nursing
Right	62.6	60.1	58.7
Wrong	25.6	20.9	28.6
Don't know	12.1	19.0	12.1

1. Regarding brain death:

Totally, 63.4% of the medical students, 66.5% of the dental students and 57.3% of the nursing students had the correct knowledge about various aspects of brain death and about 25 to 30% of the participants seemed to have wrong ideas about it. About 7 to 12% of the participants were ignorant of brain death facts (Tables 1 and 12)

2. Regarding restrictions for organ donation:

50 to 60% of the students in each group were well aware of the restrictions regarding organ donation. Dental students had the least percentage of wrong answers (19.1%) whereas nursing students had least percentage of “not known” category of answers (12.4%) (Tables 2 and 12).

3. How soon to be transplanted:

Less than 50% of the students (M-47.1%, D-40.5% and N-45.0%) seemed to have correct knowledge on the time interval between harvesting and transplanting the organs. Nursing students surpassed others in having the least percentage of “not known” answers (19.0%) whereas medical and dental groups stood next (21.5% and 31.7%) (Tables 3 and 12).

4. Storage of the harvested organs:

The knowledge regarding the method of storage of harvested organs was good among all three groups of the students with

70 to 85% of correct answers (M-84.5%, D-73.6%, N-80.0%). Among the three groups medical students were the best with least percentage of wrong answers (12.0%) and “not known” answers (3.5%). Dental students were better than the nursing students in having next least percentage of wrong answers (D-12.0%, N-15%) whereas nursing students were a step ahead of dental students in having lesser percentage of “not known” answers (D-9.8%, N-5%) (Tables 4 and 12).

S.No	Regarding	Answered correctly			Answered wrongly			Answer not known		
		M	D	N	M	D	N	M	D	N
1	Understanding of brain death	63.4	66.5	57.3	29.5	24.9	30.7	7.1	8.7	11.7
2	Restrictions for organ donation	52.1	60.7	54.8	32.4	19.1	32.8	15.4	20.3	12.4
3	How soon to be transplanted	47.1	40.5	45.0	31.4	27.8	36.0	21.5	31.7	19.0
4	Storage of harvested organs	84.5	73.6	80.0	12.0	16.7	15.0	3.5	9.8	5.0
5	Compatibility to be checked for	83.3	86.1	68.0	11.3	4.2	19.0	5.5	9.7	13.0
6	Transplant from whom to whom	56.4	58.4	50.0	30.8	25.9	39.0	12.8	15.6	6.0
7	Before and after care of recipients	66.8	58.3	60.4	23.7	22.2	30.8	9.5	19.5	8.8
8	Organs - donated from live donors	58.9	51.2	62.4	34.5	31.9	29.8	8.3	16.8	7.8
9	Organs - donated from cadavers	53.2	50.7	53.8	33.5	24.8	34.2	13.7	24.4	11.8
10	Ways to promote organ donation	60.6	55.4	55.6	16.7	11.6	18.8	22.6	33.8	25.6

Results are expressed in percentage.

M-Medical students, D-Dental students, N-Nursing students

5. Compatibility to be checked between the donors and the recipients:

Medical and dental students exhibited sound knowledge in this respect with 83.3% and 86.1% of correct answers respectively. Nursing students were also not bad and scored 68%. Dental group stood above medical group in scoring maximum percentage of right answers (86.1%) and minimum percentage of wrong answers (4.2%) (Tables 5 and 12)

6. Transplantation to be done from whom to whom:

All the three groups scored below 60% in this regard (M-56.4%, D-58.4%, N-50.0%). Minimum percentage of wrong answers came from dental group (25.9%) and the least percentage of “not known” answers came from nursing group (6.0%) (Tables 6 and 12).

7. Regarding before and after care of recipients:

Medical group was fairly good in this respect and scored 66.8% compared to the dental (58.4%) and nursing group (60.4%). Percentage of wrong answers was almost equal between medical and dental groups (23.7% and 22.2%). However, nursing students took the challenge of answering

most of the questions and got only 8.8% of “not known” answers (Tables 7 and 12).

8. Organs that can be donated from live donors:

Nursing students scored maximum percentage of correct answers (62.4%) and minimum percentage of wrong answers (29.8%) and “not known” answers (7.8%) compared to the medical (58.9%, 34.5%, 8.3%) and dental groups (51.2%, 31.9%, 16.8%) (Tables 8 and 12).

9. Organs that can be donated from cadavers:

Medical group scored almost equal percentage of correct answers (53.2%), wrong answers (50.7%) and “not known” answers (53.8%) whereas dental group scored 33.5% of the correct of organ donation answers and 24.8% of the wrong answers. Dental group stood second in the category of

“answer not known” (34.2%). Nursing group exhibited appreciable attitude of attempting most of the questions with least percentage of “not known” category (11.8%) though 50.7% of the answers were wrong (Tables 9 and 12).

10. Personal view on organ donation:

88 to 96% of the participants support the organ donation (M-88.4%, D-96.3%, N-94.0%). About 90% of the participants did not register as organ donors (M-89.1%, D-94.4%, N-88%). 56 to 72% of the participants did not even think of motivating others to donate organ (M-63.6%, D-55.5%, N-72%). However, awareness of necessity for organ donation among these participants is excellent (M-85.3%, D-90.7%, N-96%). (Table 13)

Table 13. Personal view on organ donation

S.No	Questions	MBBS			BDS			NURSING		
		Yes	No	NC	Yes	No	NC	Yes	No	NC
1	I support organ donation	88.4	7.7	3.9	96.3	2.8	0.93	94.0	6.0	0.0
2	I have registered as organ donor	7.7	89.1	3.2	4.6	94.4	0.93	12.0	88.0	0.0
3	Motivated friends and relatives to register	22.5	63.6	13.9	24.1	55.5	20.4	20.0	72.0	8.0
4	I am aware of the need for organ donation	85.3	11.6	3.1	90.7	7.4	1.90	96.0	4.0	0.0

Results are expressed in percentage. NC-No comments

Table 14. Regarding legal issues on organ donation

Q.No	Correct answer	Questions	MBBS			BDS			NURSING		
			Yes	No	DK	Yes	No	DK	Yes	No	DK
1	Yes	Transplant can be done without the consent of recipient	26.3	57.4	16.3	28.7	60.2	11.1	62.0	38.0	0.0
2	No	Payment to the donor or relatives is a must	31.8	49.6	18.6	26.9	48.1	25.0	40.0	42.0	18.0
3	Yes	Organ selling is criminal offence	75.2	18.6	6.2	78.7	13.0	8.3	54.0	24.0	22.0
4	Yes	Relative’s consent for donation-a must	63.6	24.0	12.4	76.0	10.2	13.8	60.0	34.0	6.0

Results are expressed in percentage. DK – Don’t know

IV. DISCUSSION

There are many people at the fag end of their life and counting their days because of organ failure. Their only ray of hope is in the hands of willing donors. The tremendous technological improvement in organ transplant helps to make this hope a reality [5]. Yet the gap between the needy ones and the willing donors is still very wide. This pathetic scenario may be because of the ignorance of various aspects of organ donation like attitude, legal issues, beliefs, religious restrictions etc. Based on this point of view, the present study was designed. The outcome of the study is very fruitful because it revealed the status of the students in the medical field regarding organ donation. In some fields they were good and in other fields they needed to be educated.

In our study, all respondents showed uninhibited interest and enthusiasm in taking up this session and the questioner was well-received with appreciation for its contents. After the answering session, the correct answers were discussed with them making it not only a research session but also a learning session on the burning problems of organ donation. So they felt that it was a new study that had inculcated a lot of knowledge in them regarding organ donation. The authors felt that the youth in the medical field with so much of energy and enthusiasm were the right persons to enlighten the public about importance of organ donation due to their direct contact with the people – both the patients and their relatives – in the out-patient department, admission wards and medical camps. [6]. Thanks to the advancement of information technology, the various sources like television , radio, newspaper and magazines also play a great role in educating the people about organ donation [7]. The knowledge regarding various aspects of organ donation and the awareness of the urgent need of the donors was fairly good among the students in the medical field but not up to the mark as revealed by the present study. On the whole, about 62% of the participants seem to have correct idea about the facts regarding the type of donors, criteria of the donors, precautions to be taken after transplantation, legal issues regarding organ donation etc. and about 25% of them were on the wrong side. However, their involvement in attempting to answer all the questions was highly appreciable with less than 20% of them remaining non-committal or with “I don’t know” answer.

They were excellent in the area of compatibility of the donors (80%) and the care of the recipients to be taken before and after transplants (66%). Many of the respondents were not aware that brain death is a legal death. They were still poorer in the area of time interval between declaration of brain death and harvesting of the organs and the restrictions for organ donation. These are the important areas in which they have to be educated because people willing to donate will raise the questions on these facts and the participants must be able to answer. To a certain extent this was rectified in our discussion session.

The best outcome of the result was that about 95% of the participants support organ donation and wanted to register as organ donors and we came to know that about 12% of

them have already registered as organ donors. Majority of them (90%) were of the opinion that the lack of organ donors could be rectified simply by creating awareness and motivation among people.

There are few hurdles in promoting the organ donation. One of them was superstitious ideas; people-at least Indians-believe in afterlife and reincarnation: so if one or the other organ is removed immediately before last rituals, it may be reflected in the next birth. This ignorance should be wiped out by creating awareness. In fact, none of the religions - Judaism, Christianity, Hinduism, and Islam - have any objection for organ donation and consider it to be a deeply altruistic gesture [8, 9, 10, 11].

Another hurdle is the lack of facilities for organ transplant which may make the donors as well as the motivators to think twice before deciding on organ donation. This hurdle can be overcome by the Government’s involvement: it should make it compulsory in all reputed hospitals to establish an intensive care unit (ICU) with Operation Theater always ready to harvest and transplant the organs round the clock as they have done in Maharashtra Government [8, 9, 10, 11].

The best way to promote organ donation is making the media to get involved more and more and by bringing more receptive youngsters into it as suggested by Dr Ashwin Mallya, a surgeon from Sir Ganga Ram Hospital, New Delhi. Dr. M. C. Misra, chief of the Jai Prakash Narayan Apex Trauma Centre at the All India Institute of Medical Sciences (AIIMS), is of the opinion that act of organ donation can be improved if the donors are appreciated by giving some incentives officially like giving concessions in railway reservations or offering medical benefits by the government; or at least the recognition of their good act by appreciating them in public functions like Independence Day and Republic day celebrations [12]. Kullar also of the opinion that “incentive to the donor-not monetary-but in ways of hailing them as heroes” may increase the number of donors. According to Krishnan, instead of waiting for the Government, all the hospitals in various states, whether private or government, can form a network of National Organ Registry as in Tamil Nadu through which an ‘independent organ procurement team’ can contact the family of the brain-dead patient for organ donation [13].

Another way to motivate people for organ donation is to carry “Donor’s Card” with them. Thanks to MOHAN Foundation, the donors cards can be downloaded from the website [14]

Yet another way is to add the willing donor’s name in a statewide organ donor registry through Department of Motor Vehicles (DMV) or similar agency. It can be entered in the Identity (ID) card of any type like Aadhar card [22]. As Dr. Ashwin Mallya, a surgeon from Sir Ganga Ram Hospital, New Delhi rightly said, most of the cadaver donors are road accident victims and having their assent on the driving licenses will avoid the delay in harvesting and transplanting

the organs in time and save the otherwise-gone life [23]. Voluntary organizations like MOHAN and the Zonal Transplant Coordination Centre (ZTCC) are trying their best to create awareness of organ donation in these ways [23].

Literature shows few earlier reports regarding the knowledge, attitude and awareness of organ donation among the medical students, medical professionals [15, 16, 17, 18, 19] and non-medical population [20, 21]. The results were almost similar to ours: in certain areas they seemed to be good and in some other area they needed to be educated. However, to the best of our knowledge, such an elaborate combined study among the students of various medical fields is the first of its kind, particularly in this part of the country. Hopefully, it may pave the way for further elaboration of this study which will help to eradicate the poverty of organs for the needy ones from the affordable donors.

V. CONCLUSION

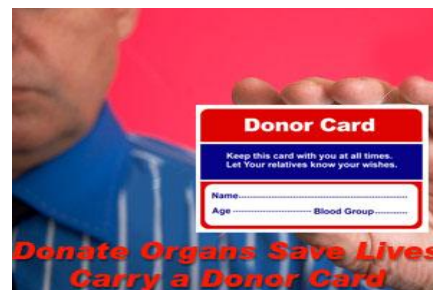
In conclusion, the significant increase in organ demand is not met with the equal increase in the organ donation not only in India but in the whole world. This gap can be reduced by educating people on organ donation through various measures. One of the best ways is to educate the youngsters in the medical field who can carry the message to the level of family, friends, relatives, patients and community levels. Let us make the statement of Indian Network For Organ Sharing (INOS) (formed first in Tamil Nadu in January 2000 with Apollo Hospitals, Sri Ramachandra Hospital, Sundaram Medical Foundation, Madras Medical Mission Hospital (all from Chennai), and Christian Medical College Hospital, Vellore) "Let no organ be wasted" as our motto and travel through the hurdles and try to improve the awareness of organ donation

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REFERENCES

- [1] Organ Donation Day: Hundreds die in India for lack of organs. IANS August 5, 2013 at 2:46 pm. <http://www.thehealthsite.com/diseases-conditions/organ-donation-day-hundreds-die-in-india-for-lack-of-organs/?gclid=CJ6AuOqi9r4CFVQqjgodJWUAMw>
- [2] [http://www.thehealthsite.com/diseases-conditions/organ-donation-all-your-queries-answered/Organ donation – all your queries answered](http://www.thehealthsite.com/diseases-conditions/organ-donation-all-your-queries-answered/Organ%20donation%20-%20all%20your%20queries%20answered). Nirmalya Dutta December 12, 2012 at 11:40 am
- [3] Dr. Sumana Navin. Organ Donation in India.. Organ Donation in India. <http://www.mohanfoundation.org/organ-donation-transplant-resources/organ-donation-in-india.asp>. Browsed on 12.6.14).
- [4] Feeley, TH, Peltier, JW, D'Alessandro, AM, Dahl, AJ 2013. "A sequential decision framework for increasing college students' support for organ donation and organ donor registration". *Progress in Transplantation*
- [5] Wig N, Gupta P, Kailash S. Awareness of brain death and organ transplantation among selected Indian population. *J Assoc Physicians India*, 2003;51:455
- [6] Verma SK. Medical students-Their attitudes to organ donation and transplantation. *Nat Med J India* 2000;13:46-7
- [7] P Agbenorku, M Agbenorku, and G Agamah. Awareness and Attitudes Towards Face and Organ Transplant in Kumasi, Ghana. *Ghana Med J. Mar* 2013; 47(1): 30–34
- [8] Nirmalya Datta 2012. [http://www.Thehealthsite.com/diseases-conditions/organ-donation-all-your-queries-answered/Organ donation – all your queries answered](http://www.Thehealthsite.com/diseases-conditions/organ-donation-all-your-queries-answered/Organ%20donation%20-%20all%20your%20queries%20answered)
- [9] Schaeffner ES, Windisch W, Friedel K, Bruitenfeldt K, Wolfgang CW. Knowledge and attitude-organ donation among medical students and physicians. *Transplantation* 2004;77:17148.
- [10] Abuksis G, Orenstein S, Hershko A, et al. Cornea recipients: Are their opinions and attitudes toward organ donation different from those of general population? *Transplant Proc* 2004;36:1249-52.
- [11] Ziaja J, Cierpka L, Krol R, Szczepanski MS, Tyryban M, Sketa S. Transplant procedures in social awareness opinion poll of Silesian province citizens on living donor organ transplantation. *Ann Transplant* 2003;8(4):43-5.
- [12] <http://www.thehealthsite.com/diseases-conditions/organ-donation-day-hundreds-die-in-india-for-lack-of-organs/?gclid=CJ6AuOqi9r4CFVQqjgodJWUAMw>. Organ Donation Day: Hundreds die in India for lack of organs. IANS August 5, 2013 at 2:46 pm



- [13] <http://www.dnaindia.com/health/report-organ-donation-needs-more-awareness-beginning-with-doctors-1957330>
- [14] http://www.mohanfountain.org/download_donorcard.asp
- [15] Knowledge, Attitudes and Proposals of Medical Students Concerning Transplantations in Greece. *Int J Prev Med.* 2011 Jul-Sep; 2(3): 164–169. PMID: PMC3143530)
- [16] Schaeffner ES, Windisch W, Friedel K, Bruitenfeldt K, Wolfgang CW. Knowledge and attitude-organ donation among medical students and physicians. *Transplantation* 2004;77:17148.)
- [17] Cantwell M, Clifford C. English nursing and medical students' attitudes towards organ donation. *J Adv Nursing* 2000;32:961.
- [18] Verma SK. Medical students-Their attitudes to organ donation and transplantation. *Nat Med J India* 2000;13:46-7.
- [19] Edwin AR, Raja D. Attitudes of health care professionals towards organ donation. *Indian J Urol* 2000;16:98-105.
- [20] The Combination of an Online Organ and Tissue Registry With a Public Education Campaign Can Increase the Number of Organs Available for Transplantation. Ali Salim, MD, Darren Malinoski, MD, Danielle Schulman, BA, Chirag Desai, BA, Sonia Navarro, BA, and Eric J. Ley, MD. *J Trauma*, 2010. 69(2)451-454. doi:10.1097/TA.0b013e3181e7847a)
- [21] Distrust in the Healthcare System and Organ Donation Intentions Among African Americans. Emily Russell, Dana H. Z. Robinson, Nancy J. Thompson, Jennie P. Perryman, Kimberly R. Jacob Arriola. *J Community Health.* 2012. 37(1) 40-47. Doi:10.1007/s10900-011-9413-3
- [22] http://en.wikipedia.org/wiki/Organ_donation#India
- [23] <http://www.mohanfountain.org/organ-donation-transplant-resources/organ-donation-in-india.asp>