

A study on awareness and attitude of organ donation among arts college students of Thiruvannamalai district, Tamil Nadu 2017

Sujatha S^{*}, Getrude Banumathi P^{**}, J Harikrishnan^{***}, Jaiganesh D^{****}, Ravishankar P^{*****}

{^{*} Assistant Professor, ^{**} Associate Professor, Department of Community Medicine}

{^{***} Assistant Professor, Department of General Medicine} Chengalpattu Medical College, Chengalpattu, Tamil Nadu, INDIA.

{^{****} Sr. Lecturer, Department of Public Health and Dentistry, Rajas Dental College, Kaavalkinaru, Thirunelveli, Tamil Nadu, INDIA.

Email: drsujal1980@gmail.com, getzpgmathi@gmail.com, jai.pmd85@gmail.com

Abstract

Background: There is an increasing discrepancy between the number of patients on the waiting list for organ transplantation and the available number of donors. Evaluation of college students' awareness and attitude is of crucial importance to evaluate and develop educational programs to raise the students' commitment to Organ Donation.

Objective: To assess the awareness of organ donation and the attitude towards organ donation among the college students and to study the association of socio demographic factors with awareness and attitude. **Methodology:** A cross sectional study was conducted among the Arts and Science College students in Thiruvannamalai District, Tamil Nadu in December 2016 to January 2017. The sample size was 114. Multi stage sampling was done. Includes both male and female students above 18 years and who are willing to participate in the study. Excluded those who were absent on the day of visit. A semi-structured self administered questionnaire was used to know the socio demographic details and questions to assess the level of awareness and attitude. Official permission obtained from the Principal of the College, Institutional Ethics Committee, and Informed written consent from the students. The data entered in MS Excel. Analyzed using SPSS Version 16. Descriptive and Inferential analysis done by using Chi square test, Fisher's exact test, p value less than 0.05 taken as significant. **Results:** In this study, 68.4% had heard about organ donation, 14.9% had pledged, 52.6% had inadequate awareness, 63.2% had poor attitude and 67.5% given willingness to donate. There was a statistically significant association between the age group less than or equal to 21 years and adequate awareness (p 0.02), good attitude (p 0.00), and willingness to donate (p 0.00). There was a significant association of good attitude with willingness to donate (p 0.00). There was a significant association between Arts group students and good attitude (p 0.00). **Conclusion:** This study clearly revealed that there was a gap between the awareness and attitude towards organ donation. There is an unquestionable need to educate the college students regarding organ donation to bridge this gap.

Key Words: Awareness, Attitude, Donor, Organ donation.

** Address for Correspondence:

Dr. Getrude Banumathi P, Associate Professor, Department of Community Medicine, Chengalpattu Medical College, Chengalpattu, Tamil Nadu, INDIA.

Email: drsujal1980@gmail.com

Received Date: 10/05/2017 Revised Date: 24/06/2017 Accepted Date: 04/07/2017

Access this article online	
Quick Response Code:	Website: www.statperson.com
	Volume 7 Issue 3

INTRODUCTION

An organ transplantation is the act of surgical removal of an organ from one person and placing it in to another person.¹ Organ Donation is the gift of an organ to a person with end stage organ disease and who needs a transplant.¹ One donor can save 8 lives by donating his organs. There are many terminal diseases like kidney failure, chronic liver failure, refractory heart failure, terminal lung diseases that can be treated by the organ transplantation.² Organ donation is legal as per the law enacted by the Government of India. "The Transplantation of Human Organs Act 1994" Act No.42, which has allowed organ donation and has legalized brain death. In India, organ donation rate is very low nearly

34/10000 population. Five lakh people die due to non availability of organs every year. For 2.2lakh patients who awaits for Kidney transplant only 15000 patients get a kidney transplant. Of one lakh patients who suffer from Liver diseases only 1000 patients are treated with liver transplantation. 10lakh patients are waitlisted for corneal transplant.³ The number of donors are very less to meet the demands of the patients who need organ transplantation. The result is some of these people die while waiting for that "Gift of Life".⁴ We are facing two problems currently; On one hand there is a shortage of organ donors, each organ of body has its own waiting list, but the lists share common characteristics that there are more organs needed than that are available. Though many lives are saved through organ donation, many people die while on the waiting list. On the other hand, there is an alarming situation in the Third World countries of "Organ Tourism". Every year thousands of people from Europe, Middle East, United States and Australia come to India, Pakistan, China, Egypt, Philippines, and other countries in search of poor donors, who are willing to give one of their organs for financial benefits.⁵ The shortage in organ supply is due to the myths, misconceptions and the lack of awareness⁶ and inadequate knowledge among the public regarding organ donation which may be due to religious and cultural barriers leading to hesitancy in donation of human organs. The state of Tamil Nadu has the pride of being the role model for the country in promoting organ donation. The Central Registry for Organ Donation, formed in October 2008, has recorded more than 2000 transplants in Tamil Nadu till 2013, the highest in the country so far.⁷ The best way to improve this is to promote the awareness in the college students, towards organ donation because they will be the most suitable persons to transmit 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.⁸ Young adults represents the future of the society and have a direct influence on family members and friends.⁹ A favourable attitude of the young adults in this matter not only means a positive personal attitude towards organ donation, but it can also be the determining factor for authorizing donation when faced with the death of a family member. In turn they will act as

'champions' of the cause in spreading the awareness and motivating the public regarding organ donation.⁷

MATERIAL AND METHODS

A cross sectional study was conducted in Cheyyar among Arts and Science College Students, Cheyyar, Thiruvannamalai District in December 2016 to January 2017. Based on Ahmedabad study⁴, proportion of students willing to donate their organs was 62.5%, considering confidence level of 95%, relative precision of 15 %, with 10% excess sampling to account for non response, the sample size was calculated and worked out to be 114. Multi stage sampling was done. In Thiruvannamalai District, out of 7 Taluks, one taluk (Cheyyar) was chosen by Simple Random Sampling. In Cheyyar, out of 3 Arts and Science Colleges, one College was chosen by Simple Random Sampling. In that College, the students were stratified according to the course of study and proportionate number of students were selected from each course. Both male and female students above 18 years of age. Those who are willing to participate in the study. Excluded those who were absent on the day of visit. The study tool is a semi-structured self administered questionnaire. The Questionnaire had two sections - **Section A:** This section include socio demographic information such as age, gender, religion, family details, history of organ donation in the family. **Section B:** This section is to assess the level of awareness and attitude towards organ donation among study participants. Awareness and attitude were scored with all right answer as 1 mark and incorrect answer as 0 mark and the median was taken as the cutoff point. Inadequate awareness was considered as those who scored ≤ 10 and for Poor attitude those who scored ≤ 7 . Official permission to conduct the study was obtained from the Principal of Arts and Science College, Cheyyar and from the Institutional Ethics Committee, Madras Medical College. Informed written consent was obtained from the participants before the study. The data was entered in MS Excel and analyzed using SPSS Version 16. Appropriate descriptive and inferential statistics like Chi square test, Fisher's Exact test done and p value of <0.05 was taken as significant.

RESULTS

Table 1: Background details of the study participants

Background Details	Frequency (%)
Gender Distribution	
Male	34 (29.8%)
Female	80 (70.2%)
Religion Status	
Hindu	105(92.1%)
Christian	5(4.4%)

Muslim	4(3.5%)
Course of study	
Arts	66(57.9%)
Science	48(42.1%)
Socio Economic Status (Based on Modified Kuppuswamy Scale)	
Lower	1(0.9%)
Upper Lower	50(43.9%)
Lower middle	44(38.6%)
Upper middle	18(15.8%)
Upper	1(0.9%)
Blood Donation Details	
Frequently	1(0.9%)
Sometimes	24(21.1%)
Never	89(78%)
Heard of Organ Donation	
Heard	78(68.4%)
Not Heard	36(31.6%)
Pledged for Organ Donation	
Pledged	17(14.9%)
Not Pledged	97(85.1%)

Table 2: Awareness of Organ Donation among College students

Questions	Frequency	Percentage
Organ Donation means	33	28.9%
a. the removal of the organ/ tissue of the human body from a cadaver		
b.the removal of the organ/tissues of the human body from a living donor.	16	14%
c.the removal of the tissues of the human body for the purpose of transplantation to another person		
d.All of the above	16	14%
	49	43%
What Organs can be Donated?		
Kidney	8	7%
Heart	8	7%
Eyes	25	21.9%
More than one options	33	28.9%
All (Kidney,Heart,Eyes,Bonemarrow,Liver,Skin,lungs)	40	35.2%
Aware of any legislation regards to Organ Donation?		
Local legislation	9	7.9%
International legislation	7	6.1%
Both	20	17.5%
Don't know	78	68.4%
When can one donate organs?		
only after death	58	50.9%
only when alive	3	2.6%
when alive and after death	53	46.5%
To whom can one donate organs when alive?		
Only to near relatives	23	20.2%
Any body	70	61.4%
Don't Know	21	18.4%
Heard of Brain death?		
a. Yes	79	69.3%
b.No	35	30.7%

Age limitation for Organ Donation		
a.Yes	23	20.2%
b.No	55	48.2%
c. Don't know	36	31.6%
Whom to contact ,if willing for Organ donation		
a.near by Govt / Private Hospitals	68	59.6%
b.Non Governmental organization	9	7.9%
c.Don't Know	37	32.5%
Consent for Organ Donation for Living Donation		
a.Donor		
b.His family	60	52.6%
c.His spouse	50	43.9%
d.His friends	3	2.6%
	1	0.9%
Consent for Organ Donation after Death?		
a.Family	89	78.1%
b. Spouse	8	7%
c. Doctor	10	8.8%
d.Friend	7	6.1%
Can parents / guardians make substitute decision making for mentally disabled persons in the regard of organ donation?		
a.Yes	64	56.1%
b.No	21	18.4%
c.Don't know	29	25.4%

Table 3: Attitude towards Organ donation

Attitude Questions	Frequency	Percentage
Are you willing to donate an organ?		
a.Yes	77	67.5%
b.No	37	32.5%
Why organ donation done?		
a.To save someone life	104	91.2%
b.Out of compassion/ sympathy	5	4.4%
c.For money	2	1.8%
d. As a responsibility	3	2.6%
Can one accept monetary or any other benefits for donating one's organ?		
a.Yes	17	14.9%
b.No	79	69.3%
c. Don't know	18	15.8%
Will you encourage my family and friends to donate		
a.Yes	85	74.6%
b.No	29	25.4%
Will you educate the community		
a.Yes	80	70.2%
b.No	34	29.8%
Do you feel uncomfortable to think or talk about		
a.Yes	27	23.7%
b.No	87	76.3%
Will you carry an organ donor card and express your desire about organ donation after your death ?		
a.Yes		

	b.No	57	50%
		57	50%
Do you believe that there is a danger that donated organs could be misused, abused or misappropriated?			
	a.Yes		
	b.No	62	54.4%
	c.Don't Know	24	21.1%
		28	24.6%
Is there any need for having effective laws to govern the process of organ donation?			
	a.Yes		
	b.No	79	69.3%
	c.Don't know	24	21.1%
		11	9.6%
Do you agree that there is a lack of awareness about organ donation in our community among young adults?			
	a.Yes	89	78.1%
	b.No	10	8.8%
	c.Don't know	15	13.2%

Table 4: Factors affecting the Awareness and Attitude towards Organ Donation

Variable(n)	Adequate Awareness n (%)	Test and value	p value	Good Attitude n (%)	Test and valve	p value
Age Group	<=21years(68)	38(55.9%)	Chi Square 4.90	34(50%)	Chi Square 12.53	0.00
	>=22years(46)	16(34.8%)		8(17.4%)		
Gender	Male(34)	12(35.3%)	Chi Square 2.83	12(35.3%)	Chi Square 0.05	0.82
	Female(80)	42(52.5%)		30(37.5%)		
Course of study	Arts(66)	33(50%)	Chi Square 0.43	31(47%)	Chi Square 6.91	0.00
	Science(48)	21(43.8%)		11(22.9%)		
Blood Donation	Yes(25)	14(56%)	Chi Square 0.95	8(32%)	Chi Square 0.32	0.57
	No(89)	40(44.9%)		34(38.2%)		
Heard of Organ Donation	Yes (78)	40(51.3%)	Chi Square 1.51	31(39.7%)	Chi Square 0.89	0.34
	No (36)	14(38.9%)		11(30.6%)		
Pledged	Yes(17)	8(47.1%)	Chi Square 0.001	3(17.6%)	Fisher's Exact Test	0.103
	No(97)	46(47.4%)		39(40.2%)		

Table 5: Awareness Versus Attitude

Variable, (n)	Attitude		Chi square value	P value
	Good	Poor		
Awareness	Adequate (54)	23(42.6%)	1.45	0.22
	Inadequate (60)	19(31.7%)		

Table 6: Factors influencing Willing to donate organs

Variable, (n)	Willing to donate organs		Test and value	P value
	Yes	No		
Age Group	<=21years(68)	54(79.4%)	Chi square 10.82	0.00
	>=22years(46)	23(50%)		
Gender	Male (34)	26(76.5%)	Chi square 1.76	0.18
	Female (80)	51(63.8%)		
Course of study	Arts(66)	46(69.7%)	Chi square 0.33	0.56
	Science(48)	31(64.6%)		
Awareness	Adequate(54)	40(74.1%)	Chi square 1.99	0.15
	Inadequate(60)	37(61.7%)		

Attitude	Good (42)	39(92.9%)	3(7.1%)	Fisher's Exact Test	0.00
	Poor (72)	38(52.8%)	34(47.2%)		
Heard of Organ donation	Yes (78)	57(73.1%)	21(26.9%)	Chi square	0.06
	No(36)	20(55.6%)	16(44.4%)	3.44	

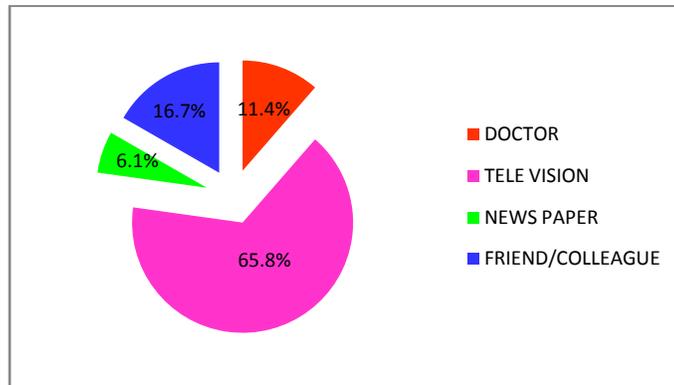


Figure 1: Source of knowledge on organ donation

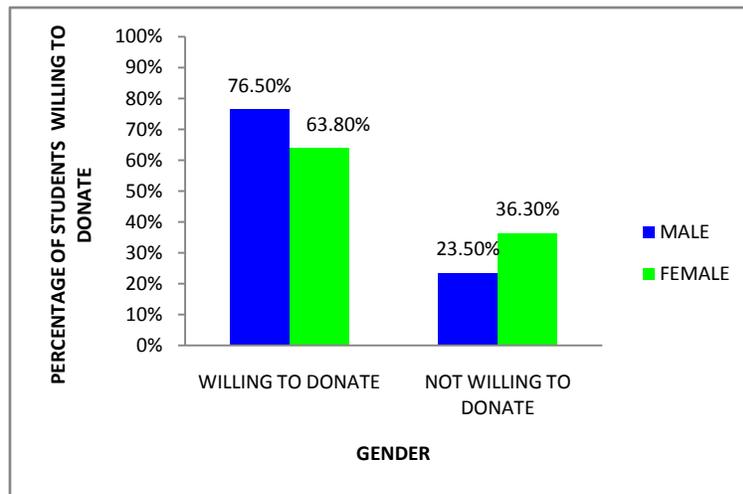


Figure 2: Gender versus willing to donate organ

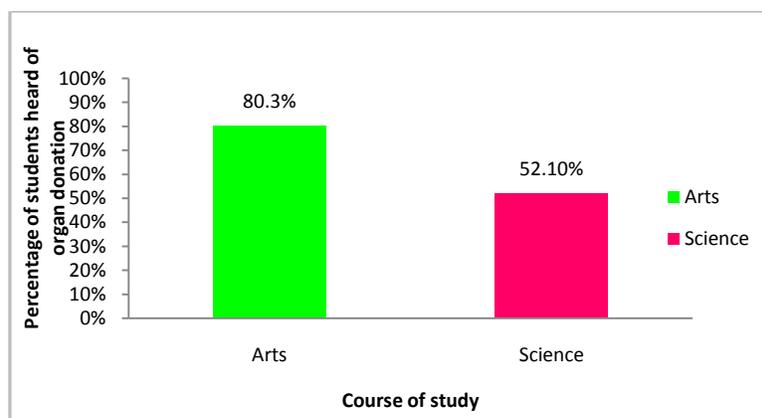


Figure 3: Heard of Organ donation among Course of study

Among the 114 college students, 70.2% were females. The mean age of the college students were 21 years

± 2.17 . In this study, 43.9% belong to upper lower socio-economic status and 38.6% were in Lower middle socio

economic status according to modified Kuppaswamy classification. Of the study participants, 22% of them had donated blood and 68.4% had heard of the term organ donation. Only 14.9% had pledged for organ donation of whom 14% pledged for only Eye Donation and only one person had pledged for whole body donation. About 65.8% of the college students responded that Television played an important role as a source of spreading awareness regarding organ donation. Among the college students, 70.83% of Science group and 72.72% of the Arts group had become aware of Organ Donation only through mass media. In this study, 21.1% of the college students declared that their family member, 10.5% of their friend and 1.8% of their colleague had pledged for organ donation. Among the study participants 52.6% had inadequate awareness regarding organ donation. Of the study participants 43% knew the correct meaning of organ donation. About 35.1% of the students responded that all organs (kidneys, heart, eyes, bone marrow, liver, skin, lungs) can be donated, 21.9% answered only eyes can be donated. In this study, 68.4% had no knowledge about the legislation regarding organ donation. In this study, 46.5% of the respondents said organ can be donated when alive and also after death and 61.4% of the students responded that when alive they can donate organs to anyone. About 69.3% had heard of the term organ donation. In this study, 48.2% of the study participants said that there is no age limitation for organ donation. Among the study participants 32.5% were not aware where and whom to contact to donate organs or to pledge to donate organs. Among the study participants 63.2% had poor attitude regarding organ donation and 67.5% of the college students had given willingness to donate organs. Among the study participants, 91.2% were of the opinion that organ donation is to be done to save the life of someone. In this study, 14.9% of the students replied that monetary benefits can be accepted for organ donation. It was found that 74.6% were willing to encourage their family and friends for organ donation where as 70.2% were also willing to educate the community about the significance of organ donation. Only 23.7% feel uncomfortable to think or talk about organ donation. In this study, 50% expressed their willingness to carry an organ donor card to show their desire about organ donation after death. About 69.3% of the college students replied that there is a need for having effective laws to govern the process of organ donation and 78.1% of the students agree that there is a lack of awareness about organ donation in the community among young adults. Among the study participants, 85 (74.6%) responded that organ donation can be promoted, 19 (16.7%) had replied that they don't know regarding organ donation promotion and only 10 (8.8%) students said that

promotion of organ donation need not be done. The reasons for not promoting organ donation were due to religious belief (3.5%), family/parent refusal (1.8%), harmful to donor (2.6%) and leads to organ trade (0.9%).

Statically Analysis

Statistical tests of significance were done for Awareness and Attitude with age group, gender and the course of study in the following Table.4. There is a statistically significant association between the age group ≤ 21 years and adequate awareness ($p=0.02$), good attitude towards organ donation ($p<0.001$). In the age group ≥ 22 years, 34.8% had adequate awareness and only 17.4% only had good attitude. Gender had no association between awareness ($p=0.09$) and attitude ($p=0.82$). In males 35.3% had adequate awareness and good attitude. But in females 52.5% of them had adequate awareness and 62.5% had poor attitude towards organ donation. The religious groups other than the Hindus were of negligible number and hence the analysis was not done. There is no association between Socio economic status and the awareness level ($p=0.69$) by Fisher's Exact test and attitude ($p=0.86$) by Fisher's Exact test among the study group. There is a statistically significant association between the Arts group students and good attitude towards organ donation ($p<0.001$). Blood donation and Heard of organ donation had no impact on awareness and attitude towards organ donation among the college students. 56% of those who donated blood had adequate awareness ($p=0.32$) and 32% of those who donated blood had good attitude towards organ donation ($p=0.57$). There is no association between the pledge status and awareness ($p=0.97$) and attitude towards organ donation ($p=0.103$). Among those with poor attitude, 80.5% have not pledged. Association between awareness and attitude was analyzed using Pearson's Chi-square Test but found to be insignificant ($p=0.22$). It was found that 57.4% of those who had adequate awareness seems to have poor attitude. There is a statistically significant association between age group ≤ 21 years and willing to donate ($p<0.001$). Among the age group ≤ 21 years, 79.4% had given willingness to donate organs. Between Males and Females there is no statistical difference in their willingness to donate ($p=0.18$). There is no association between course of study and willingness to donate ($p=0.56$). Among the study participants, 69.7% of Arts students and 64.6% of science students had given willingness to donate. Among those with adequate awareness 74.1% are willing to donate ($p=0.15$). In spite of the inadequate awareness 61.7% are willing for organ donation. Among those with good attitude 92.9% are willing to donate organs. The association was found to be highly statistically significant ($p<0.001$). Among those who have not pledged to donate 62.9% are willing to donate ($p=0.01$). In this study,

55.6% of those who have not heard of organ donation are yet willing to donate ($p=0.06$). Arts group students seems to have heard of organ donation more than the science group ($p<0.001$).

DISCUSSION

This study was done to find out the awareness level and the attitude towards organ donation among the college students. Among them 43% had known the meaning of organ donation is similar to the study done in West Bengal (38.2%).¹⁰ Among the students in the age group of ≤ 21 years, 55.9% had adequate awareness and 50% of them had good attitude towards organ donation. This may be due to independency in decision making attitude, curiosity and enthusiasm in these young adults. As the students were even up to the age of 33 years, who were even married women, we can assume that they (≥ 22 years age group) have been influenced by their family responsibilities and spouse/family refusal for organ donation. There is no significant difference between male and female with regards to the awareness of organ donation and their attitude. There is no significant association between course of study and awareness level. There is a statistically significant association between the Arts group students and good attitude towards organ donation. This may be due to their reading habit of news paper (85.7%). Among the study participants, 69.7% of Arts students and 64.6% of science students had given willingness to donate. It is very obvious that among college students irrespective of the course are becoming aware of organ donation through mass media (70.83% of Science group and 72.72% of the Arts group). Mass media plays a major role in young adults, awareness can be created through the right message in the media. Hence more effort can be made in propagating through mass media. This finding is very similar to the study conducted in Ahmedabad (70%).⁴ Among those with adequate awareness yet having poor attitude is 57.4%. Hence there is a gap between the awareness and attitude towards organ donation, that has to be bridged. Among the study participants, 35.1% responded that all organs like kidney, heart, eyes, liver, skin, bone marrow, lungs can be donated. This was similar to the findings in the study conducted at Ahmedabad (30.5%).⁴ In this study 68.4% of students did not know about the Legislations pertaining to organ donation which is very similar to the study conducted by R. Naveen (64.5%).¹¹ In this study, 46.5% of the students responded that organ donation can be done both when alive and after death. This result was slightly higher to the results of the study conducted in Chennai (36.36%).⁶ In this study, 69.3% of the study participants had heard of Brain Death is similar to the study conducted by Saad Abdullah Alghanim (69.5%)¹² and

Saraswathi Ilango (66.5%)¹³. Among the students, 78.1% had replied that the Family is responsible for giving consent of organ donation after death which is slightly lower when compared to the study conducted in Chennai (83%).⁶ Among the study participants, 67.5% have given willingness to donate organs which implies the positive attitude of the students towards organ donation. This is similar with the study conducted in Ahmedabad (62.5%).⁴ Among the study participants, 91.2% had replied that organ donation were done to save the life of someone, which is consistent with the study conducted by R.Naveen(91.6%).¹¹ In this study 50% of the participants had given willingness to carry an organ donor card to express their desire to donate organs after their death, which is similar to the study conducted in Ahmedabad (45.5%).⁴ About 74.6% of the college students accepted that organ donation need to be promoted which is similar to the studies conducted in Chennai (75%)⁶ and by Saraswathi Ilango (88%).¹³ 69.3% of the college students of this study replied that there is a need for Laws to govern organ donation which is slightly lower to the study conducted by Sucharitha (76%).⁷ In the current study 14.9% of the college students had pledged to donate organs which was consistent with the study done by Saad Abdullah Alghanim (12.2%).¹² Among those who have not pledged to donate 62.9% are willing to donate, further measures must be taken to increase the number of students who will be take decision to pledge to donate.

CONCLUSION

This study clearly revealed that there is a gap between the knowledge and attitude towards organ donation among the Arts and Science college students. Though there was willingness for organ donation but only few pledged among the students. This study concludes that there is unquestionable need to educate the college students regarding organ donation. In turn they will act as 'champions' of the cause in spreading the awareness and motivating the public regarding organ donation. "Let no organ be wasted" will be our Motto and surge through hurdles and try to improve awareness of Organ Donation among the students and public.

Limitation: The attitude towards organ donation could not be compared among the religious group due to their negligible number.

RECOMMENDATIONS

- To improve awareness among college students the curriculum in the education can include need and importance about organ donation even at the school level.

- We need to spread awareness through mass media effectively by conducting campaign, short films, advertisements and celebrity endorsement.
- As young adults are savvy with electronics, Mobile Android Apps may be used for promotion of Organ donation, to rectify user queries regarding organ donation, organ available status and need status. It should facilitate the user to connect with the online pledging site of SOTTO (State Organ and Tissue Transplant organisation) and NOTTO (National Organ and Tissue Transplant organisation).
- A social group can be formed where the young adults can meet and interact with those in need of organ donation.
- People can be motivated and encouraged to donate organs by providing the donors and their family members by Special Health Insurance Policies, concessions in Transports, Scholarships for Education of the children of the Donors.
- Counselling Corners for organ donation can be established in Schools, Colleges, Malls and Gym.

REFERENCE

1. www.notto.nic.in
2. Kaur Ramandeep, Begum Nilavansa S., Kaur Amritpal, A Quasi Experimental Study to assess the Effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Organ Donation among Young Adults in Selected Colleges of Jalandhar, Punjab, *AJNER*, Jan2014-March2015; 5(1):140-145
3. www.organindia.org
4. Rakesh Shah, Alpesh Patel, Vaibhav Ramanuj, Nitin Solanki, Knowledge And Attitudes About Organ Donation Among Commerce College Students, *National Journal of Community Medicine*, Oct – Dec 2015; 6(4): 533 -535.
5. Nahida Khan, Zahid Masood, Nadia Tufail, Hina Shoukat, KTA Ashraf, Sumera Ehsan, Sabeeka Zehra, Nosheen Battol, Sadia Akram, Sehrish Khalid, Knowledge And Attitude Of People Towards Organ Donation, *JUMDC*, Jul-Dec 2011; 2(2): 15-21.
6. Annadurai K, Mani K, Ramasamy J, A study on knowledge, attitude and practices about organ donation among college students in Chennai, Tamil Nadu -2012, *Progress in Health Sciences*, 2013; 3(2): 59-65.
7. Sree T. Sucharitha, Ravi Siriki, Rajeshwara Rao Dugyala, Mullai, Priyadarshini, Kaavya, Roshini, Organ Donation: Awareness, attitudes and beliefs among undergraduate medical students in South India, *National Journal of Research in Community Medicine*, July-Sep. 2013; 2(2):83-88
8. Dr. Saraswathi Ilango, Ms. M. Usha Nandhini, Dr. S. Manikandan, Dr. Prema Sembulingam, Awareness of Organ Donation among Fresh Students in Medical Field, *International journal of medical science and clinical Invention*, 2014; 1 (6) :274-283.
9. Ibrahim Tokalak, Altug Kut, Gokhan Moray, Remzi Emiroglu, Rengin Erdal, Hamdi Karakayali, Mehmet Haberal, Knowledge and Attitudes of High School Students Related to Organ Donation and Transplantation: A Cross-Sectional Survey in Turkey, *Saudi J Kidney Dis Transplant*, 2006;17(4): 491-496.
10. Aparajita Dasgupta, Bhaskar Shahbabu, Kaushik Sarkar, Ishita Sarkar, Sudipta Das, Malay Kumar Das: Perception of Organ Donation among Adults: A Community Based Study in an Urban Community of West Bengal, *Sch. J. App. Med. Sci.*, 2014; 2(6A):2016-2021.
11. R. Naveen, V. Santosh Kumar, H. Praveen, C. Rajeswari, P. Seenivasan, K. Caroline Priya: Knowledge, Attitude And Practices Of Organ Donation Among College Students In Chennai, *Stanley Medical Journal*, 2014; 1(1):11-16.
12. Saad Abdullah Alghanim, Knowledge and Attitudes toward Organ Donation: A Community-Based Study Comparing Rural and Urban Populations, *Saudi J Kidney Dis Transpl.*, 2010;21(1):23-30
13. Dr. Saraswathi Ilango, Ms. M. Usha Nandhini, Dr. S. Manikandan, Dr. Prema Sembulingam: Awareness of Organ Donation among Fresh Students in Medical Field, *International journal of medical science and clinical Invention*, 2014;1(6) :274-283

Source of Support: None Declared
Conflict of Interest: None Declared