



RESEARCH ARTICLE

ASSESSMENT OF KNOWLEDGE AND ATTITUDE ON ORGAN DONATION AMONG  
GENERAL PUBLIC AT PUDUCHERRY

\*Arul Nisha, S.

CON, JIPMER, Puducherry-6

ARTICLE INFO

Article History:

Received 24<sup>th</sup> June, 2017  
Received in revised form  
12<sup>th</sup> July, 2017  
Accepted 20<sup>th</sup> August, 2017  
Published online 29<sup>th</sup> September, 2017

Key words:

Transplant

ABSTRACT

**Background:** An organ transplant may save a person's life, or significantly improve their health and quality of life. People who receive a new organ can expect to survive and enjoy good quality of life. In India Five lakh people die due to non-availability of organs. 1, 00,000 people die of Liver diseases. Out of which only thousand get a Liver transplant. 2, 20,000 people are waiting for Kidney transplant out of which only 15,000 get kidney transplant.

**Aim:** The present study aims to identify the level of knowledge and attitude towards organ donation.

**Methods:** The cross sectional descriptive study conducted in 217 samples. The subjects were selected based on convenient sampling technique.

**Results:** The level of knowledge on organ donation is out of 217 participants 193 (88.94%) of them have inadequate knowledge on organ donation, 24 (11.05%) of them have moderately adequate knowledge on organ donation and none of them have adequate knowledge on organ donation. The level of attitude on organ donation is out of 217 participants 148 (68.2%) of them have favorable attitude towards organ donation, 69 (31.8%) of them have moderately favorable attitude towards organ donation and none of them have unfavorable attitude towards organ donation.

**Conclusion:** This study shows that <50% had inadequate level of knowledge on organ donation and >70% had favorable attitude regarding organ donation.

Copyright©2017, Arul Nisha. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Arul Nisha, S. 2017. "Assessment of knowledge and attitude on organ donation among general public at Puducherry", *International Journal of Current Research*, 9, (09), 57310-57313.

INTRODUCTION

Organ donors are always in short supply. According to global observatory on organ donation and transplantation 119,873 transplanted organs in 2014 out of which Kidney- 79948, Liver -26151, Heart- 6542, Lung -4689, Pancreas- 2328, Small Bowel- 215. 117,000 Number of men, women and children on the national transplant waiting list as of July 2017. 33,611 transplants were performed in 2016.22 people die each day waiting for a transplant (<http://www.transplant-observatory.org/contador1/>). In the United States, there are currently 122, 592 people waiting for an organ. 18 people die in the United States each day waiting for an organ. In 2014, 17,107 kidney transplants took place in the U.S. Of these, 11,570 came from deceased donors and 5,537 came from living donors. On an average Over 3,000 new patients are added to the kidney waiting list each month. 13 people die each day while waiting for a life-saving kidney transplant. Every 14 minutes someone is added to the kidney transplant list. In 2014, 4,761 patients died while waiting for a kidney transplant. Another, 3,668 people became too sick to receive a kidney transplant (<https://www.organdonor.gov/statistics-stories/statistics.html>).

\*Corresponding author: Arul Nisha, S.  
CON, JIPMER, Puducherry-6

In India Five lakh people die due to non-availability of organs. 1, 00,000 people die of Liver diseases. Out of which only thousand get a Liver transplant. 2, 20,000 people are waiting for Kidney transplant out of which only 15,000 get kidney transplant. People wait for corneal transplant 10 lakh, heart transplant 50,000, and Lung transplant 20,000. There is a wide gap between the number of transplants awaited and the organs available. The depressing status convey the urgent need for more people to step and donate their organs; save the lives of people languishing due to organ failure (<https://www.organdonor.gov/statistics-stories/statistics.html>).

MATERIALS AND METHODS

The objective of the study is to assess the knowledge and attitude on organ donation among general public and to identify the relation between knowledge and attitude and identify the association between knowledge and attitude with demographic variables. A cross sectional descriptive research design was used to assess the knowledge and attitude regarding organ donation among the General public at Pondicherry. The study included 217 samples. The convenience sampling technique was used to select the study sample. Sample size is estimated with an expected percentage of respondents with

favorable attitude (Kavitha, 2014) and knowledge on organ donation with 5% level of significance and 15% relative precision. The instrument consists of three parts. Demographic variable consist of age, sex, religion, educational status. Occupation, family income and source of health information. Assessment of knowledge is done using multiple choice questionnaires prepared by investigators. It consists a total of 20 questions related to general information on organ donation. A total score of 20 is prepared by the investigators. Assessment of attitude by using five point LIKERT SCALE. It consists of 20 statements which include 10 positive statements and 10 negative statements regarding organ donation. The score interpretation of knowledge by 20 multiple choice questions. Each correct answers carries one mark and each wrong answer carries zero mark. Total score on knowledge is 20. If they score < 50% considered as inadequate knowledge, 51%-75% moderately adequate knowledge and above 75% considered as adequate knowledge. The score interpretation for attitude done by using five point LIKERT SCALE. The score

of positive and negative statements are as follows. Positive statement:-Strongly agree (SA) - 5, Agree (A) - 4, Uncertain (UC) - 3, Disagree (D)- 2, Strongly disagree (SD) - 1, Negative statement:- Strongly disagree (SD) -5, Disagree (D) - 4, Uncertain (UC) - 3, Agree (A) - 2, Strongly Agree-1. Ethical Committee permission was obtained from the Institutional Review Board. A written informed consent was taken from all participants.

## RESULTS

Out of 217 participants 193 (88.94%) of them were having inadequate knowledge on organ donation, 24 (11.05%) of them have moderately adequate knowledge on organ donation and none of them have adequate knowledge on organ donation (Table:1). It reveals that among the participants, the mean value for knowledge on organ donation is 7.30 with the standard deviation of 2.723. Among the participants 148 (68.2%) of them have favorable attitude and 69 (31.8%) of

**Table 1. Level of knowledge on general information about organ donation**

Overall level of knowledge	Participants	
	NO	%
Inadequate < 50%	193	88.94
Moderately Adequate 51-75%	24	11.05
Adequate >76%	0	0

**Table 2. Frequency and distribution of level of attitude regarding organ donation**

Overall level of attitude	Participants	
	NO	%
Unfavorable <50%	0	0
Favorable 51-75%	148	68.2
Most favorable >76%	69	31.8

**Table 3. Correlation of knowledge with attitude on organ donation**

Variables	Mean	Standard deviation	Relation
Knowledge	1.12	0.325	r = 0.249
Attitude	2.32	0.467	

**Table 4. Association of knowledge on organ donation among general public with demographic variables**

Demographic variables	Inadequate	Moderately adequate	Chi square
Age	19-30	104	=5.081
	31-40	56	df=4
	41-50	13	p=0.279
	51-60	13	
	≥61	5	
Sex	Male	120	= 0.016
	Female	71	df=1
Religion	Hindu	170	p = 0.899
	Christian	13	= 1.644
	Muslim	6	df=3
	Others	2	p = 0.650
	Illiterate	11	
Education	Primary	13	=10.394
	Middle	51	df = 4
	High&Higher Secondary	48	p = 0.034
	Graduate	68	
	Unemployed	33	
Occupation	House wife	35	= 25.934
	Labourer	76	df = 4
	Professionals	25	p = 0.00
	others	22	
Monthly income	≤1000	39	= 11.171
	1001-2000	57	df = 3
	2001-5000	45	p = 0.011
	≥5001	50	
Source of information	Television	94	= 4.144
	Radio	8	df = 4
	News Paper	46	p = 3.87
	Others	43	

**Table 5. Association of attitude on organ donation among general public with demographic variables**

Demographic variables		Inadequate	Moderately adequate	Chi square
Age	19-30	81	39	= 1.170
	31-40	43	18	df = 4
	41-50	11	6	p = 0.883
	51-60	8	5	
	≥61	5	1	
Sex	Male	100	36	= 4.767
	Female	48	33	df = 1
Religion	Hindu	130	63	p =0.029
	Christian	9	5	=3.429
	Muslim	7	0	df = 3
	Others	2	1	p = 0.330
	Illiterate	8	4	= 4.24
Education	Primary	12	1	df = 4
	Middle	33	20	p = 0.352
	High&Higher Secondary	54	24	
Occupation	Graduate	41	20	
	Unemployed	23	11	=1.611
	House wife	23	15	df = 4
	Laborer	57	22	p =0.807
	Professionals	24	11	
Monthly income	others	21	10	
	≤1000	30	9	=1.827
	1001-2000	40	22	df = 3
	2001-5000	36	17	p = 0.609
	≥5001	42	21	
Source of Information	Television	69	34	S
	Radio	6	3	df = 4
	News Paper	40	17	p = 0.958
	Others	33	15	

them have most favorable attitude (Table:2). It reveals that among 217 participants the mean value of attitude regarding organ donation is 72.47 with the standard deviation of 9.36. It reveals that among the study subjects, the overall mean score of knowledge was 1.12 with standard deviation 0.325 and overall mean score of attitude was 2.32 with standard deviation 0.467 (Table:3). The above Table:3 reveals a moderate positive correlation between knowledge and attitude with r value of 0.249 at  $p < 0.01$  level. The analysis reveals that there is a statistical significance between sex and knowledge of the participants with the demographic variables.

## DISCUSSION

This study was intended to identify the knowledge and attitude on Organ donation among general public at Puducherry. The level of knowledge on organ donation was assessed among 217 general public, 21(12.0%) subjects had moderately adequate knowledge and 193 (88.0%) had inadequate knowledge on organ donation. The findings of the present study was supported by Hamed H (Hamed *et al.*, 2016; Khan *et al.*, 2011; Saleem *et al.*, 2008). The mean value for the knowledge on the organ donation of the subject was 7.30 with the standard deviation of 2.723. The level of attitude on organ donation was assessed and it revealed that among 217 subjects, 69 (31.8%) had favorable attitude, 148 (68.2%) had most favorable attitude. The finding of the present study was supported by Hamed H (Hamed *et al.*, 2016; Chakradhar *et al.*, 2016; Vijayalekshmi *et al.*, 2016; Babaie *et al.*, 2015; Manojan *et al.*, 2014). The mean value of attitude was 72.47 with standard deviation of 9.36. It is identified that there is a significant relationship between knowledge and attitude on organ donation with r value of 0.249. The findings of the present study was supported by Khan *et al.* (2011). The association between the level of knowledge and attitude regarding organ donation among subjects in regards to age, sex, religion, education, occupation, monthly income, source of information. It is been

identified that there is an association between knowledge and attitude with sex having p value of 0.029. It is also found that there is an association between knowledge on organ donation with education and occupation with p value of 0.034 and 0.00 respectively. The findings of the present study were supported by Saleem (Manojan *et al.*, 2014).

## Conclusion

The present study assessed the knowledge and attitude of organ donation among the general public. It shows that there is statistically significant association in the attitude regarding organ donation among the general public in relation to their educational level at the ' $P < 0.01$ '. The present study shows that the general public has inadequate knowledge regarding organ donation. Health education is an important aspect of Nursing Practice with effective health education the nurse can change the attitude regarding the organ donation. It will help the public to volunteer for organ Donation to save the life of the people.

## Acknowledgement

Dr. S. Revathi, Former Principal College of Nursing, JIPMER for necessary guidance throughout the study. IV Year B.Sc Nursing students, Ms. Abirami@ pavithra.S Ms.Anusuya.U., Mr. Balachandar.R., Ms.Christina raj.A., Ms.Dhivya.M., Ms. Kavnilavu, Ms. Krishna veni, Ms. Nandhini.N., Ms. Prithy. R., Ms. Sherin glada. W., Ms. Suganthi.S. and Ms.Vigna. K. Mr. K. T. Harichandra Kumar - for statistical analysis.

## REFERENCES

- Babaie M, Hosseini M, Hamissi J, Hamissi Z. 2015. Knowledge, Attitude and practice of Nurses regarding Organ Donation. *Global J Health Sci.*, 7:6

- Chakradhar K, Doshi D, Sriganth Reddy B, Kulkarni S, Padma Reddy M, Sruthi Reddy S. 2016. Knowledge, attitude and practice regarding Organ Donation among Indian dental students. *Int J of Transplantation Med.*, 7:1
- Hamed H, Award ME, Youssef KN, Founda B, Ayman EI, Abdel M. 2016. Knowledge and Attitudes about Organ Donation among Medical Students in Egypt: A Questionnaire. *J Transplant Technol Res.*, 6:1  
<http://sites.ndtv.com/moretogive/numbers-status-organ-donation-india-221>  
<http://www.pbs.org/newshour/updates/country-highest-organ-donation-rates/>  
<http://www.transplant-observatory.org/contador1/>  
<https://www.kidney.org/news/newsroom/factsheets/Organ-Donation-and-Transplantation-Stats>  
<https://www.organdonor.gov/statistics-stories/statistics.html>
- Khan N, Musood Z, Tufail N, Shouhat H, Asraf KAT, Ehsan S, Battol N, Akram S, Khalid S. 2011. Knowledge and attitude towards of people on Organ Donation. *JUMDC*, 2:2
- Manojan KK, Raja RA, Nelson V, Beevi N, Jose R. 2014. Knowledge and attitude towards Organ Donation in Rural Kerala. *Academic Medical journal of India*, 5:2
- Saleem T, Isaque S, Habib N, Hussain SS, Jawed A, Khan AA, Ahmad MI, Liftikhar MO, Mughal HP, Jehan L. 2008. Knowledge, attitude and practice survey on Organ Donation among a selected adult population of Pakistan. *BMC Med Ethics.*, 10:5
- Vijayalekshmi P, Sunitha TS, Sailakshmi G, Rohini T, Suresh BM. 2016. Knowledge, Attitude and Behaviour of the general population towards Organ Donation: An Indian perspective. *The National Medical Journal of India*, 29:5

\*\*\*\*\*