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Assessment of knowledge and attitude on organ donation among adults in selected areas

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ABSTRACT

Organ donation is defined as when a person gives consent for their organ to be removed, legally while the donor is alive or after death with the consent of the next of their kin. The present study aims to assess the knowledge and attitude on organ donation among adults in selected community areas. The study was conducted in selected areas at Maraimalai nagar, Kancheepuram district. The research design adopted for this study was a cross-sectional study design. 60 adults were selected by convenient sampling technique. Inclusion criteria include a. Adults who were between the age groups of 18-60 years. b. Adults who were available at the time of data collection. c. Adults who were able to write and read Tamil and English. Exclusion criteria include a adults who were not willing to participate in the study. The self-structured questionnaire was prepared to assess the knowledge regarding organ donation among adults. The findings showed that majority 37(62%) adults had moderately favourable attitude, 23(38%) adults had a favourable attitude; no one had an unfavourable attitude towards organ donation. The results revealed, a highly significant positive correlation was found between knowledge and attitude regarding organ donation among adults at the level of $p=0.001^{**}$. Awareness programme can be conducted to improve the knowledge, attitude regarding organ donation among adults.



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INTRODUCTION

Organ donation is defined as when a person gives consent for their organ to be removed, legally while the donor is alive or after death with the consent of the next of their kin. Healthy transplantable organs may be donated to be transplanted into

other people. Most commonly kidneys, heart, liver, pancreas, intestines, lungs, bone marrow, skin, and corneas are transplanted. Living donors can donate some organs such as a kidney or part of the liver, part of the pancreas, part of the lungs or part of the intestines, but most donations occur after the death of the donor. The reports say that 115,085 people were waiting for organ transplants in the US in 2018. Out of them, 74,897 people were active candidates waiting for a donor (Online Wikipedia, 2018). Organ transplantation is the most important treatment option for final stage organ disease and organ failures. Many organs such as heart, cornea, kidney, and liver are commonly transplanted to human recipients. However, the need for the transplants is high, and the gap between organs available for transplantation and the number of patients waiting for a transplant is widening globally (Prasanna Mithra *et al.*, 2013).

Organ donations save lives of many patients affected by organ failures and also it helps to improve their quality of life. Organ transplantations have gradually ameliorated in the last two decades, and it provides good results in children and young adults, and are increasingly challenged by the growing proportion of elderly transplant patients with comorbidities. Though solid organ transplant programs activities are steadily growing, still, it is far from global needs, with great differences among countries (Josep M. Grinyó, 2013).

Zeljko vlaisavljevic (2013) was conducted a study among 291 nurses from the clinical centre of Serbia, Belgrade. Out of 291 respondents, the questionnaire regarding the possibility of buying organs was answered correctly by 69% of respondents. The study concluded that the majority 91% of them would accept for an organ transplant if required, but only 32% of them would be organ donors, and only 0.3% had a donor card. In contrast, one-third of nurses were already blood donors (Vlaisavljević Z *et al.*, 2014).

In India, 9.5 million deaths occur annually; nearly 100,000 deaths are mainly due to organ failure. Organ donation has become the only hope to save and extend the lives of people. Health care professionals play an important role in facilitating the cadaveric organ donation process (Chakradhar K *et al.* 2016)

Rajlaxmi Nishant Kurian (2016) conducted a study to assess the knowledge and attitude of staff nurses regarding organ donation in a selected hospital of New Delhi. The study was carried out on 60 staff nurses selected by convenient sampling. Data was collected using a structured questionnaire and an attitude scale. A majority (90%) of the sample subjects have inadequate knowledge, and only 10% have adequate knowledge. A majority (78.33%) of the samples had a favourable attitude whereas 21.66% of them had an unfavourable attitude towards organ donation. The study reflects on the increased need for improvement in knowledge as well as attitude towards organ donation among staff nurses (Rajlaxmi Nishant Kurian & Hema Nair, 2016).

Although organ donation can save many lives, there is a shortage of organ donors. One of the reasons for the shortage of donors, maybe unawareness about organ donation. A lot of advancement in the field of transplant surgeries is made recently. There is a rising gap between organ demand and supply. This is mainly due to a lack of awareness about organ donation.

The present study aims to assess the knowledge and attitude on organ donation among adults in selected areas at Maraimalai Nagar, Kancheepuram district.

METHODOLOGY

The study was conducted in selected areas at Maraimalai Nagar. Kancheepuram district. The research design adopted for this study was a cross-sectional study design. 60 adults were selected by convenient sampling technique. Inclusion criteria include a. Adults who were between the age groups of 18-60 years. b. Adults who were available at the time of data collection. & c. Adults who were able to write and read Tamil and English. Exclusion criteria include a. Adults who were not willing to participate in the present study.

Tool for data collection

The tool consisted of three sections. Section A consisted of a structured questionnaire to assess the demographic variables. Section B comprised of a self-structured questionnaire for assessing the knowledge regarding organ donation among adults. The knowledge scores are interpreted as adequate knowledge, moderately adequate knowledge and inadequate knowledge. Section C comprised of three-point Likert scale to assess the level of attitude regarding organ donation among adults. The scores are interpreted as a favorable attitude, moderately favorable attitude and unfavorable attitude.

Tool reliability

It was done by the split-half method. The coefficient correlation was $r=0.81$ for knowledge and $r=0.75$ for attitude among adults which was very high. Hence, the tools were considered reliable and feasible for proceeding with the main study.

Ethical considerations

The research proposal was approved by the research committee of SRM college of nursing, SRM IST, Kattankulathur. Formal Permission was obtained from the dean, SRM College of nursing. The study participants have given their consent to participate in the study after explaining the nature and duration of the study. An assurance was given to the individual that report will be kept confidential.

RESULTS

The data collected was arranged and tabulated to interpret the findings of the study. Descriptive and inferential statistical methods were used for analyzing the data.

Table 1: Frequency and percentage distribution of demographic variables of adults

S. No.	Demographic Variables	Class	No. of Adults (n)	Percentage distribution (%)
1	Age in Years	18-28 Years	28	47
		29-39 Years	23	38
		40-50 Years	8	13
		51-60 Years	1	2
2	Gender	Male	15	25
		Female	45	75
		Transgender	0	0
3	Education	Illiterate	0	0
		Primary School Certificate	2	3
		Middle School Certificate	7	12
		Higher School certificate	14	23
		Post High School Certificate	7	12
		Post Graduate School Certificate	20	33
		Professional	10	17
4	Occupation	Unemployed	11	18
		Unskilled Workers	15	25
		Semi-Skilled Workers	10	17
		Clerical Shopkeeper Farmer	7	12
		Semi-Professional	1	2
		Professional	16	27
		Professional	16	27
5	Monthly Income	Rs. 1590-4726	10	17
		Rs. 4727-8777	4	7
		Rs. 7878- 11816	18	30
		Rs.11817-51753	12	20
		Rs. 15754-31506	13	22
		>Rs. 31507	3	5
6	Place of Residence	Urban	21	35
		Rural	39	65
7	Marital Status	Married	38	63
		Unmarried	22	37
8	Socio Economic Status	High	6	10
		Middle	54	90
		Low	0	0
9	Religion	Islam	2	3
		Christianity	12	20
		Hinduism	46	77

N=60

Table 2: Frequency and percentage distribution of the level of knowledge on organ donation among adults

S. No	Level of Knowledge	No. of adults (n)	Percentage distribution (%)
1	Inadequate Knowledge	21	35
2	Moderately Adequate Knowledge	28	47
3	Adequate Knowledge	11	18

N=60

Table 3: Frequency and percentage distribution of attitude towards organ donation among adults

S. No	Level of Attitude	No. of adults (n)	Percentage distribution (%)
1	Unfavorable	0	0
2	Moderately Favorable	37	62
3	Favorable	23	38

N=60

Regarding the age, most of them 47% belonged to the age group of 18-20, 38% belonged to the age group of 29-39, 13% belonged to the age of 40-50 years, and 2% belonged to the age group of 51-60

S. No.	Score	Mean	Standard Deviation	N	Pearson's Correlation coefficient	P-Value
1	Knowledge Score	13.45	4.955	60	0.405	0.001**
2	Attitude Score	54.57	6.513	60		

N=60; **-Significant at 1% level; *-Significant at 5% level

years. Regarding gender, most of them 75% of females and 25% of them male. Regarding the educational status, no, one was illiterate, 3% had completed school certificate, 12% had completed middle school certificate, 23% had completed a higher school certificate, 12% had completed post higher school certificate, majority 33% had completed post-graduate school certificate, and 17% had completed the professional course. Regarding the occupation, 18% were unemployed, 25% was an unskilled worker, 17% was a semi-skilled worker, 12% were clerical, shop keeper, farmer, 2% were, and around 27% were professional. Regarding the monthly income per month, 17% were earning between Rs.1890-4726, 7% were earning between Rs. 4727-8777, majority 30% were earning between Rs.7878-111816, 20% were earning between Rs.11817-51753, 22% were earning between Rs.15754-31506 and 5% were earning between Rs.31507. Regarding the place of residence, the majority 65% were in rural, and 35% were in urban. Regarding the marital status, the majority 63% were married, and 36% were unmarried. Regarding the socioeconomic status, 10% were in high class, the majority 90% were in the middle class, and no one had low economic status. Regarding the religion, majority 77% were Hindu, 20% were Christian, and 3% were Islam.

The findings depicted that, 21(35%) adults had inadequate knowledge, 28(47%) had moderately adequate knowledge, and 11(18%) had adequate knowledge of organ donation.

The findings depicted that, majority 37(62%) adults had moderately favorable attitude, 23(38%) adults had a favorable attitude, no one had an unfavorable attitude towards organ donation.

The results revealed that a highly significant positive correlation was found between "Knowledge and Attitude" regarding organ donation among young adults.

Discussion

Today, Organ shortage is the greatest challenge faced by the field of organ transplantation. Many approaches have been adopted to expand the organ donor pool including live donation, a national effort to expand deceased donor donation, split organ donation, paired donor exchange, national sharing models and greater utilization of expanded criteria donors. Increased public awareness, improved efficiency of the donation process, greater

expectations, expansion of the living donor pool and the development of standardized donor management protocols have led to unprecedented rates of organ procurement and transplantation. In recent years, there has been a growing interest in donors those who are with severe, irreversible brain injuries. If the physician and patients' family agree that the patient has no chance of recovery for a meaningful life, life-supportive measures can be discontinued, and the patient can be allowed to progress to circulatory arrest and then still donate organs (Saidi R.F and Hejazii Kenari, S. K, 2014).

The current study findings depicted that, 21(35%) adults had inadequate knowledge, 28(47%) had moderately adequate knowledge, and 11(18%) had adequate knowledge regarding organ donation. Regarding the attitude, majority 37(62%) adults had moderately favorable attitude, 23(38%) adults had a favorable attitude, no one had an unfavorable attitude regarding organ donation. With regard to correlation, a highly significant positive correlation was found between "Knowledge and Attitude" regarding organ donation among young adults at $p=0.001^{**}$.

The study finding is consistent with the study done by Prasanna Mithra *et al.* (2014) on perception and attitude regarding organ donation among people attending tertiary care centers at Mangalore, India. The study employed a quantitative research methodology with a cross-sectional study. Perception and attitude questionnaire were given to the respondents to assess the perception and attitude on organ donation. The study concluded that 59.6% of participants showed their willingness to donate the organs. 40% of participants had perceived risks associated with organ donation, 42% of the participants knew about donor cards and 4% of them already possessed it (Prasanna Mithra *et al.*, 2014).

The present study results revealed that, regarding the association of level of knowledge with demographic variable regarding organ donation among adults, there was a significant association found between the monthly income and Knowledge and but no association found with other demographic variables.

The results showed that, regarding the association of level of attitude with demographic variable among adults, there was no significant association found between the demographic variables and the

level of attitude regarding organ donation among adults.

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The study finding is consistent with the study done by Hosam Hamed *et al.*, (2016) on knowledge and attitude regarding organ donation among 359 medical students. A self-administered questionnaire was used. The results showed that 36% of the students had good knowledge about Organ donation, 11.7% of them had good knowledge about brainstem death. 66.3% of students found their information resources are insufficient. 77.7% of participants didn't become aware of the law regulating Organ donation. 37% of them had a positive attitude towards organ donation. There is a significant relationship between knowledge and attitude towards organ donation ($P=0.003$). Knowledge of student was significantly associated with seniority, Christian religion (Hosam Hamed *et al.*, 2016).

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