



Assessment of awareness and attitude towards organ donation among adults seeking health care at tertiary care hospital

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Abstract

In India, the awareness regarding organ donation is very less but the demand of organ transplantation is high. To assess the awareness and attitude towards organ donation among adult seeking health care at tertiary care hospital. We carried out a cross sectional descriptive study among 339 randomly selected patients and their attenders attending the outpatient and inpatient department of tertiary care hospital. We used a semi-structured questionnaire and Likert scale to collect data. We found that 100% participants were heard about the term organ donation and source of information is mass media i.e. 89.1%. While 141 (41.59%), of study participants supported organ donation and 171 (34.57%) had a positive attitude and think that organ donation saves several lives, however, only 64 (16.4%) were willing to registered for organ donation. There was 303 (89.4%) of study participants have desirable attitude, while 36 (10.6%) had an undesirable attitude towards organ donation. There was considerable relationship between attitude and education qualification, religion, place of residence and family history of organ donation.

Keywords: Awareness, Adults, Attitude, Organ donation, Health care, Tertiary care hospital.

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1. Introduction

In India, mortality is down and life expectancy is rising as a result of advancements in science and technology in the medical field. But as dietary and lifestyle choices have changed, so too has the proportion of persons experiencing different types of organ failure. Giving an organ or a portion of an organ to someone else for transplantation is known as organ donation. An organ can be donated by a living person, a deceased person, or a brain-dead person [1]. The most recommended course of treatment for end-stage organ disease and organ failure is organ transplantation. It provides greater rewards for survival along with a higher quality of life. As a result, the extent of organ recovery is critical. Organ transplantation and donation have emerged as the only viable options for extending and saving lives. The capacity to improve and prolong life through this operation has progressed from experimental phases to mainstream practice since the first transplantation carried out in 1954 [2]. People's knowledge and attitudes play a major role in the success of retrieval [2]. Organ donation is a complicated and multifaceted topic that involves organizational, sociological, legal, medical, and ethical considerations [3]. The public and healthcare practitioners' incorrect understanding, lack of awareness, and inability to identify potential donors are

thought to be the main causes of the organ shortage [1]. The current research was done to evaluate the awareness and attitude towards organ donation among adult seeking health care at tertiary care hospital.

2. Materials and method

On 339 randomly chosen patients and their companions who were in the tertiary care hospital's outpatient and inpatient departments, we conducted a cross-sectional descriptive study. To gather information, we employed a Likert scale and a semi-structured questionnaire. Following informed permission from participants and clearance from AIIMS, Bhubaneswar's institutional ethics committee as well as the hospital administration, the study comprised adults seeking medical attention in the OPD and IPD of AIIMS Bhubaneswar during the study period. The study was conducted from November 2019 to March 2020. A quantitative method was taken in this investigation. Convenient sampling was used in this investigation. The descriptive factors in this study were organ donation awareness and attitude. Age, gender, educational attainment, religion, socioeconomic class, place of residence, state, and family history of organ donation were the irrelevant variables.

Participants in a pretested questionnaire study were included. Adult OPD and IPD in tertiary care hospital patients and attendants who were willing to engage in the study, above the age of eighteen, able to understand and respond in both English and Odia, were the inclusion criteria. Adults who are unable to comprehend and understand either English or Odia are excluded from our study based on certain criteria. The subjects who fulfilled the inclusion criteria were enrolled in the study. Data collection tools contain 3 sections, section A, section B, section C.

- **Section A:** Socio-demographic profile, that consisting of age, gender, educational status, religion, per capita monthly income, residence, state and family history of organ donation.
- **Section B:** Awareness regarding organ donation which was by semi structured questionnaire contains 19 items of multiple response choice questions.
- **Section C:** Attitude towards organ donation among study population was assessed by structured five-point Likert scale contains where 10 positive and 10 negative statements were included for conducting the study.

The obtained data was analysed by descriptive and inferential statistics using SPSS software version 20.0.

3. Result

Table 1 depicts about awareness regarding organ donation among participants. According to the Table 1, all the participants have heard about the term organ donation. Among 339 participants, 89.1% of them responded that the source of information for organ donation was mass media while very few subjects (0.6%) heard from colleagues. According to 88.2% of participants, organ donation was being done to save life whereas only 4.4% replied that organ donation was being done for money while only 5% of them stated that it was done for sympathy. According to 47.2% of population only eye can be donated after the death of the person, however, 3.8% of participants stated that all parts of the body can be donated after death. As per 31% of 339 participants, lack of awareness was the reason for which people were not coming forward to donate organ. Only 15.6% study participants were aware about the laws related to organ donation. Table 2 describes the frequency and percentage distribution of attitude towards organ donation among participants. Among 339 study participants, majority of participants 49.96% stated that they can donate organ to any individuals while only 22.67% of participants disagreed with the statement. Interestingly 57.99% out of 339 participants were willing to register for organ donation and only 16.80% had shown no interest for registration. Table 3 illustrates that overall mean score of attitude was calculated as 69.40 ± 8.93 which is considered to be desirable attitude. Table 4 depicts that, there is no statistically significant association between attitude and age, marital status, per capita family income and state respectively.

4. Discussion

The most recommended course of treatment for end-stage organ disease and organ failure is organ transplantation. A transplant program's success depends on

the public's awareness of and favorable attitude towards organ donation [4]. The material was widely disseminated by the mass media, which was consistent with a prior study done by Balajee et al., (2017) [5]. The majority of respondents (59.3%) knew that human cadavers as well as living individuals can donate organs. According to a recent study by Balwani et al., (2015), 56% of the participants were aware that organs can be donated from both living people and dead people [6]. The majority of individuals in our survey were not aware that organs can be given in any way. 6.6% of research participants knew that organs such as kidney, eyes, blood, liver, lungs, heart, and bone marrow may be given, according to Balwani et al., (2015) [6]. Lack of awareness is the most frequent reason why people do not donate organs, accounting for 43% of the cases, whereas religious beliefs about organ donation account for just 10.6% of cases. Similar to our investigation, Tamuli et al., (2019) study revealed that almost 52% and 12.5% of participants, respectively, believed that ignorance and religious conviction were the main reasons why people did not give organs [7]. According to 46.3% of participants in our study, organ donation should occur when the majority of close relatives and decision-makers concur. According to a recent study by Vijayalakshmi et al., (2019), 54.9% of participants thought it was vital to know their family's final wishes after they passed away. Additionally, the same study shows that only 4.7% of people and 18% of our participants understood what brain death meant [8]. In the survey, about 75.8% of participants agreed that the person donor should give agreement for live organ donation, while 56% agreed that consent might be given by family for cadaver organ donation. Additionally, it was discovered in a related survey conducted by Balwani et al., (2015) that 76% of respondents felt that family should provide agreement for cadaver organ donation, while 59% agreed that the individual donor should offer consent for live organ donation [6]. According to the findings of Chakradhar et al., dental students who were studied had an average level of awareness about organ donation and transplantation, as well as a low level of positive attitudes and practice habits [2]. Poreddi et al. propose that nursing courses should be revised in order to adequately equip aspiring nurses to handle situations involving organ donation and foster care [9]. According to Srinivasula et al., a single, quick educational intervention greatly raised dental students' perceived awareness about organ donation and had a beneficial impact on their attitudes and behaviors around it [1]. According to Mithra et al.'s findings from their survey, while a significant percentage of participants had negative opinions towards organ donation, there was a high level of awareness of the practice [4]. Khalid et al. discovered that most participants had a good attitude towards organ donation and that the general public lacked awareness about the practice [10]. While the majority of participants were aware of organ donation, Paul et al., discovered that their willingness to contribute was low [11]. Even though the Transplantation of Human Organs Act (THOA) went into effect in 1995, only 15.6% of participants knew that laws pertaining to organ donation existed. These results were similar to a 2019 study by Vijayalakshmi et al., which found that 5.7% of participants knew about the laws and regulations pertaining to organ donation.

Table 1: Awareness regarding organ donation among participants.

Variables	Response	Frequency	Percentage
Have you heard about organ donation?	Yes	339	100
	No	0	0
Source of information about organ donation	Mass media	302	89.1
	Friends	17	5.0
	Colleagues	2	0.6
	HCW	11	3.2
	Family	4	1.2
	Not heard	0	0
	Mass media and HCW	1	0.3
What do you mean by organ donation?	Removal of organ from living body	40	11.8
	Removal of organ from dead body	94	27.7
	Removal of organ from both living and dead body	201	59.3
	Don't know	4	1.2
Why organ donation is being done?	To save life	229	88.2
	For money	15	4.4
	For sympathy	17	5.0
	To save life and for money	6	1.8
	To save life and for sympathy	2	0.6
Who can donate organ?	Family members	112	33.0
	Only from deceased	38	11.2
	anyone	184	54.3
	family member and deceased	3	0.9
	family member and anyone	2	0.6
What are the organs that can be donated by living person?	Blood	114	33.6
	kidney	25	7.4
	liver	2	0.6
	eyes	28	8.3
	all part of the body	9	2.7
	blood and kidney	66	19.5
	blood and liver	3	0.9
	blood and eyes	10	2.9
	kidney and liver	3	0.9
	kidneys and eyes	5	1.5
	liver and eyes	2	0.6
	heart and eyes	2	0.6
	Blood, kidney and liver	33	9.7
	Blood, kidney and eyes	25	7.4
	Blood, liver and eyes	5	1.5
	kidney, liver and eyes	5	1.5
Blood,kidney, liver, heartand eyes	2	0.6	
What are the organs that can be donated after death?	Kidney	1	0.3
	Heart	14	4.1
	Eyes	160	47.2
	Lungs	7	2.1
	All parts of the body	13	3.8
	Skin	2	0.6
	Don't know	1	0.3
	Blood and eyes	1	0.3
	Kidney and heart	1	0.3
	Heart and eyes	76	22.4
	Heart and skin	1	0.3
	Eyes and lungs	3	0.9
	Eyes and skin	2	0.9
	blood, kidney and liver	1	0.9
	kidneys, heart and eyes	3	0.9
	kidneys, eyes and lungs	1	0.3
	heart, eyes and lungs	40	11.8
	heart, eyes and skin	1	0.3
	eyes, lungs and skin	3	0.9

Variables	Response	Frequency	Percentage
	kidney,liver,heart and eyes	2	0.6
	kidneys,eyes,lungs and skin	4	1.2
	kidneys,liver,heart,eyes and lungs	1	0.3
According to your opinion, why many people are not coming forward to donate organ?	Lack of awareness	105	31.0
	Religious belief	21	6.2
	fear	101	29.8
	Misconceptions	6	1.8
	Don't know	4	1.2
	Lack of awareness and religious belief	7	2.1
	Lack of awareness and fear	23	6.8
	Religious belief and fear	7	2.1
	Fear and Misconceptions	51	15.0
	Fear, Lack of awareness, fear and Misconceptions	11	3.2
Religious belief, fear and Misconceptions	2	0.6	
Lack of awareness andreligious belief	1	0.3	
Do you know is there any age limitation for organ donation?	Yes	46	13.6
	No	60	17.7
	Don't know	233	68.7
When to donate organ?	Only after the family has accepted the death	121	35.7
	After the first set of brain death tests are done	61	18.0
	When most of the close relatives & decision makers are together	157	46.3
Who should give consent for live organ donation?	Individual donor	257	75.8
	Family or relatives	73	21.5
	Friends /colleagues	2	0.6
	Anyone	5	1.5
	Individual donor,Family or relatives	2	0.6
Who can give consent for organ donation after death?	Legal heir	118	34.8
	Family	190	56.0
	doctor	22	6.5
	Friends	4	1.2
	All	2	0.6
	Legal heir, Family	1	0.3
	Family, doctor	2	0.6
Are there any laws regarding organ donation in India?	Yes	53	15.6
	No	43	12.7
	Don't know	243	71.7
For below18 age group, who should give consent?	Father	34	10.0
	Mother	10	2.9
	Both	281	82.9
	Any one of the family	14	4.1
Where to register for organ donation?	Hospital	296	87.3
	Online	28	8.3
	Don't know	5	1.5
	Hospital, online	10	2.9
Where to approach for organ donation?	Hospital	296	87.3
	Online	28	8.3
	Don't know	5	1.5
	Hospital, online	10	2.9
Whom to approach for organ donation?	Health care provider	333	98.2
	Sarpanch/ local authority	5	1.5
	Don't know	1	0.3
Within how many hours of death organ can be donated?	Within 2-4 hours	140	41.3
	4-6 hours	93	27.4
	8-12 hours	27	8.0
	Any time before funeral	60	17.7
	Don't know	19	5.6
Do you think organ donation	Yes	48	14.2

Variables	Response	Frequency	Percentage
disfigure the body?	No	291	85.8
Will organ donation affect the lifespan of donor?	Yes	35	10.3
	No	304	89.7

Table 2: Attitude towards organ donation among participants (frequency and percentage).

Variables	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I can donate organ to any individual	95(28.02)	165(49.96)	37(10.91)	35(10.32)	8(2.35)
After organ donation regular funeral service will not be affected	81(23.89)	159(46.90)	46(13.56)	38(11.20)	16(4.71)
Organ donation allows for something positive to come out of a person's death	123(36.28)	166(48.96)	38(11.20)	11(3.24)	2(0.5)
Organ donation saves several lives	171(34.51)	152(44.83)	14(4.12)	2(0.5)	1(0.29)
I support organ donation	141(41.59)	172(50.73)	15(4.42)	10(2.94)	2(0.5)
I am willing to register for organ donation	64(16.40)	141(41.59)	77(22.71)	46(13.56)	11(3.24)
I need to tell my family that I did like to be a donor because its already in my will	77(22.71)	161(47.49)	62(18.28)	33(9.73)	6(1.78)
My family member will allow for organ donation	44(12.96)	111(32.74)	117(34.51)	51(15.04)	16(4.71)
My religion is not a barrier for organ donation	93(27.43)	135(39.02)	52(15.33)	44(12.96)	15(4.42)
It is not necessary for a person's body to have all of its parts when buried	96(28.31)	138(40.70)	47(13.86)	42(12.38)	16(4.71)
Organ donation causes unnecessary expenditure	43(12.68)	47(13.86)	62(18.28)	121(35.69)	66(19.46)
There is chance for misuse of donated organs	59(17.40)	82(24.18)	70(20.64)	90(26.54)	38(11.20)
People who donate organ in this life would take birth with the missing organ	15(4.42)	38(11.20)	35(10.32)	123(36.28)	128(37.75)
Any relative of the brain dead can give consent for organ donation	33(9.73)	108(31.85)	81(23.89)	86(25.36)	31(9.14)
If I am in accident and the hospital knows that I am designated as a donor, the doctor will not try to save my life.	27(7.96)	50(14.74)	100(29.49)	95(28.02)	67(19.76)
I have a history of medical illness, no one could benefit from my donation	28(8.25)	78(23.00)	90(26.59)	100(29.49)	43(12.68)
After organ donation I will be weak and unable to work live earlier	40(11.79)	91(26.84)	73(21.53)	98(28.90)	37(10.91)
Organ donation is more-risky for females	25(7.37)	63(18.58)	76(22.41)	119(35.10)	56(16.51)
Rich and famous people getorgan easily than common people	95(28.02)	98(28.90)	47(13.86)	67(19.76)	32(9.43)
Identification of the donor should be declared publicly	133(39.23)	97(28.61)	54(15.92)	38(11.20)	17(5.01)

Table 3: Overall attitude regarding organ donation.

N	Mean	Standard deviation
339	69.40	8.943

Table 4: Association between demographic variables attitude among participants.

Variables	Groups	Attitude		df	Chi-square	P-value
		Desirable	Undesirable			
Gender	Male	188	25	2	0.83	0.65
	female	114	11			
	others	1	0			
Age	<40	235	30	1	0.57	0.44
	>40	67	6			
Education	Primary	19	4	3	15.17	.002
	Secondary	63	17			
	Higher secondary	128	9			
	Graduateand above	93	6			
Marital status	Married	117	24	2	1.06	0.58
	Unmarried	124	12			
	Widow/separated	2	0			
Religion	Hindu	177	24	2	182.24	0.01
	Muslim	124	12			
	Christian	2	0			
	Others	2	0			
Income	<Rs.1050	41	5	4	3.55	0.46
	Rs.1051-2101	37	7			
	Rs.2102-3503	46	8			
	Rs.3504-7007	72	7			
	>7008	107	9			
Habitat	Rural	166	25	2	-.071	0.05
	Urban	124	9			
	Semi-urban	13	2			
State	Odisha	279	32	1	0.43	0.51
	Others	24	4			
Family history	Yes	279	32	1	236.25	0.01
	No	24	4			

In the current study, 87% of participants were aware that hospitals are locations where organ donations can be made. Vijayalakshmi et al., (2019) also discovered a similar finding, namely that 83.4% of participants believe that organ donation does not disfigure the body [8]. Nearly 85.8% of participants believe that organ donation does not disfigure the body. The majority of participants in our poll (92.3%) said they were in favor of organ donation. In line with our findings, 94.4% of participants in Vijayalakshmi et al.'s 2019 study agreed to endorse organ donation. According to the current study, 60.4% of participants are eager to register as organ donors. According to Vijayalakshmi et al., (2019), 79.4% of the participants were willing to sign an organ donation card, which is a similar finding to this one. According to the same survey, 72% of respondents believed that transplantable organs might be bought and sold in India, which could provide a significant obstacle to organ donation [8]. Furthermore, 41.6% of study participants believed that donated organs might be misused. While 57.6% of participants in Sarveswaran et al.'s (2019) study had a good attitude towards organ donation, our study indicated that 89.4% of the general population had an overall desired attitude towards organ donation [12]. Like earlier research, ours demonstrates a strong correlation between attitude and demographic factors. It was discovered that, compared to men (88.2%), women (91.2%) had a more favorable attitude on organ donation. On the other hand, males (62.5%) were shown to be more ready to give their organs than women (37.5%) by Vijayalakshmi et al., (2019) [8].

Godara et al., 2024

Additionally, our research shows that those with greater socioeconomic class and levels of education have more favorable attitudes and awareness regarding organ donation.

5. Limitations

This study has limitations of a cross sectional design, convenience sampling, small sample restricted to one tertiary center that made difficult to generalizing the finding.

6. Recommendations

- The study may be carried out in larger samples.
- The attitude and perception regarding organ donation may be investigated by adopting qualitative methodology.
- Targeted education program may be initiated to change the perception of general population.

7. Nursing Implications

- Nurses play important role in importing knowledge and in calculating the desired behavior in clinical and community set up.
- This finding may facilitate to initiate awareness program regarding organ donation.
- Nurses can provide information to the people regarding the procedure of organ donation.

- Nurses can guide to the people who are willing to donate organs to the nearest health facility.

8. Conclusions

The goals were met by conducting a descriptive-research. The study patients consisted of adults who were seeking medical attention at tertiary care hospitals, who were chosen using convenient selection. The participants' awareness and attitude regarding organ donation were assessed through the use of a Likert scale and a semi-structured questionnaire.

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