

Assessment of Willingness for Organ Donation: A cross-sectional descriptive study

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Abstract—Organ donation is very important action by which a life can be saved, so it is advisable to determine fill the formalities for organ donation at least at the time of death. But due to lack of awareness along with myths and misconceptions add to the low percentage of organ donation in India. So this descriptive study was carried out on 815 more than 18 year aged participants with the aim to assess the willingness for organ donation in participants with reasons for willingness as well as for unwillingness. It was found willingness for donate their organ were only in 50.4% of participants whereas 20.9% did not want to donate and 28.7% did not decide. The most common reason found for willingness in this study was 'I could save many life from donating my body' i.e. in 80.8% followed by 'After death I will be alive' response (51.5%), 'It's saintly work' response (50.6%), 'Society will be benefited' response in 42.2% and 'On being motivated by media and people ' response in 35.8% of participants. And when reasons for not willing to donate their organ was discovered in this study, it was found that majority (55.9%) could not explain any reason for that while 17.1% were feared that family and doctors will not save them, 14% said that family members will sell their organ (14.0%) and few (12.9%) said that it's against my religion. It can be observed that a quantifiable (35.8%) of participants were motivated for willingness for organ donation through media and people are having myths regarding organ donation. So to promote organ donation, awareness for organ donation and its related issues should be encouraged through various medias.

Keywords: Organ Donation, Willingness.

I. INTRODUCTION

Organ donation is the donation of biological tissue or an organ of the human body from a dead or living person to a living recipient in order to save the life of the recipient. A living person can donate organ at any time or even after natural death or after brain death. After natural death only few tissues only can be donated like cornea, bone, skin, blood vessels, whereas after brain death almost 37 different body organs can be donated including critical organs.¹

There is a poor Organ Donation Rate i.e. 0.26 per million in India than compared to some of the better performing countries such as America's, Spain's, and Croatia's Organ Donation Rate i.e. which is 26, 35.3 and 36.5 per million respectively. With a 1 per million-donation rate, India would have 1,100 organ donors or 2200 kidneys, 1000 hearts, 1100 livers, 1100 pancreas and 2200 eyes. This should take care of almost all current demands for organs. At a 2 per million-donation rate there would be 2200 organ donors and the above figures would double. Then there would be no necessity to undertake living kidney donations. And there is a need of roughly 200000 kidneys, 50000 hearts and 50000 livers for transplantation each year.²

This shortage is primarily attributed to a limited number of organ donations in our country.³ A study from India, done in the last decade has shown that less than 50% were willing to consider organ donation.⁴

Human organ donation was legalized in India since 1994 through 'The transplantation of Human Organs Act, 1994.'⁵ and was amendment in 2013. Unfortunately, many people never indicate their wish to donate because of their false belief that their age or medical condition would not allow them to donate. If one wants to save and enhance life through donation, the most important action one can take is to share their donation decision; if donation is not medically feasible, that determination will be made by experts at the time of death.

Lack of awareness along with myths and misconceptions add to the low percentage of organ donation.⁶ Horton and Horton's (1991) model of factors related to organ donation indicates that the strongest predictors of organ donation willingness are knowledge and attitudes, with personal values playing a much weaker role.⁷

So this study was planned with the aim to find out willingness of organ donation in citizen of a metropolitan city.

II. METHODOLOGY

A cross sectional descriptive study was carried out on 815 participants in year 2016 at Jaipur Rajasthan. Study participants were more than 18 years aged attendees for minor illness during study period at Medical OPD, SMS Medical College, Jaipur. Out of these attendees those who are having any major or chronic illness or having mental disturbance were excluded from this study.

Sample size was to be calculated 790 subjects at 95% confidence limit and 10% absolute allowable error assuming 33.6% willingness donate any organ after death. Total 815 eligible participants were included in this study, who came during the study period from 1st May 16 to 30th June 17.

After approval from Institutional Ethical committee this study was started under Preventive and Social Medicine Department, SMS Medical College, Jaipur (Rajasthan) India.

After taking written informed consent from each of eligible participant desired information was collected as per pre-tested predesigned semi structured proforma was developed. This proforma includes questions regarding willingness for organ donation along with personal information of participants.

Data thus collected were entered in MS Excel worksheet 2007 as master chart. Qualitative data were expressed in proportions and percentage and quantitative data were expressed in mean $\pm$ SD.

III. RESULTS

Out of these 815 participants interviewed, 75.34% male and 24.66% female population having M:F ratio 3.06. Mean age of participants was 36 ± 4.2 years with age range 18-60 years. On asking their place of residence majority belonged to urban area i.e. 53.74% followed by 46.26% of rural. (Table 1)

The majority of people (88.71%) were Hindu, followed by Muslims (9.2%) and others (2.1%). On asking their caste, majority (37.18 %) were from OBC followed by general categories (32.52 %), schedule tribe (19.02%) and schedule caste (11.30%). Majorities (52.52%) of participants were married

followed by 45.15% single then 2.3% are others (divorced, broken families, separated, widow/widower etc). (Table 1)

Table 1
Bio-socio-demographic distribution of study population (N= 815)

S. No.	Variables	No	%
1	Age Group (years)	18-27	55.46
		28-37	28.83
		38-47	10.55
		48 & above	5.15
2	Sex	Male	75.34
		Female	24.66
3	Place of Residence	Rural	46.26
		Urban	53.74
4	Religion	Hindu	88.71
		Muslim	9.2
		Other	2.1
5	Caste	General	32.52
		OBC	37.18
		ST	19.02
		SC	11.3
6	Marital status	Married Living with Spouse	52.52
		Single	45.15
		Others	2.3
7	Education Qualification	Up to Primary	10.3
		Up to secondary	25.3
		Graduated and above	64.4
8	Occupation	Govt.jobs	17.55
		Private Job	20.74
		Own Business	10.43
		Not earning	23.44
		Others	27.85
9	Type of Skills in Occupation	Unskilled	12.27
		Semi-skilled	34.85
		Skilled	40.61
		Professional	10.92
		Managerial	1.35
10	Type of family	Joint	54.11
		Nuclear	42.7
		Single	3.19
11	Socioeconomic status	Class I	35.09
		Class II	32.14
		Class III	16.93
		Class IV	12.02
		Class V	3.85

The education level of respondent reveals that only 64.4% respondents were graduated and above while 25.3 % were higher secondary passed and followed by 10.5% up to the primary level. On asking their

occupation 23.44% were unemployment, 20.74% private jobs, 17.55% government jobs, and 10.43% own business. About skills they have in their occupation, 40.61% were skilled followed by 34.85 % semi-skilled worker, 12.27% unskilled, 10.92% professional and 1.35% managerial. (Table 1)

About 54.11 % belonged to the joint family and 42.70 % were from nuclear family followed by 3.9% single (divorced, broken families, separated, widow/widower etc) (Table 1)

On assessing about their socioeconomic status class I, 35.09% followed by class II 32.14%, class III 16.93%, and class IV 12.02%, and class V. (Table 1)

On asking the willingness for donate their organ; only 411 (50.4 %) responds 'Yes' while 170 (20.9%) did not want to donate their organ and 234 (28.7%) did not decide. Among those who responded 'Yes', female were more (55.2%) as compared to men (44.8%). (Figure 1 & 2)

Figure 1

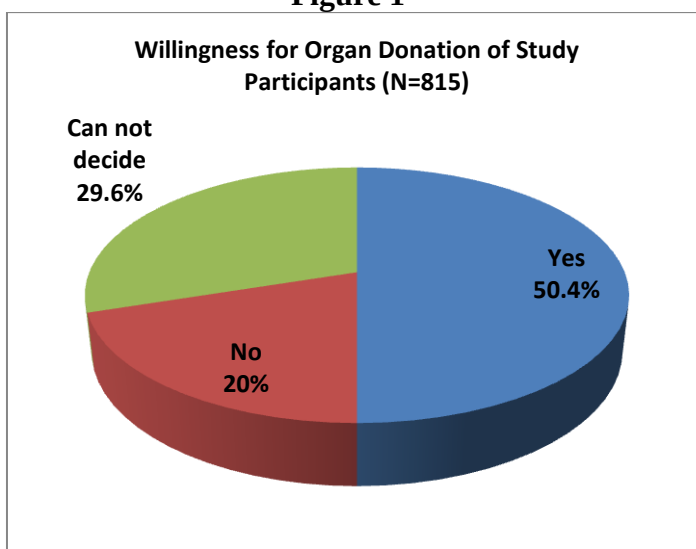
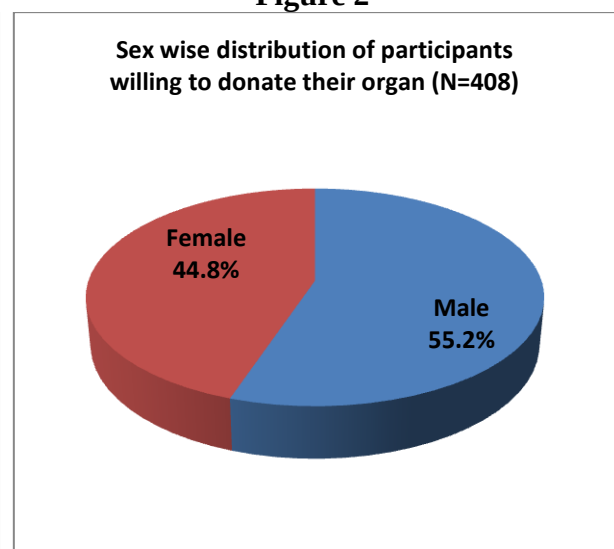


Figure 2



There are varieties of factors that influence people to become an organ donor. When a reason for willing to donate organs was asked among various responses, multiple responses were obtained from each willing participant. The most commonly response pertaining to willingness was 'I could save many life from donating my body' i.e. in 80.8% followed by 'After death I will be alive' response (51.5%), 'It's saintly work' response (50.6%), 'Society will be benefited' response in 42.2% and 'On being motivated by media and people ' response in 35.8% of participants. (Table 2)

Table 2
Reasons for organ donation wise distribution of Participants (N=411)

S. No.	Reasons	Number*	%
1	It's kind of saintly work	208	50.6
2	After death I will be alive	211	51.3
3	I could save many people's life	332	80.8
4	On being motivated by media and people	147	35.8
5	Society will be benefited	174	42.3

*Multiple Response

On further being asked to whom they want to donate their organ mostly respondents reported that 'Needy person' (64.5%), followed by family members (18%) and relatives (12 %). (Table 3)

Table 3
Type of person to whom willing to donate organ (N=411)

S. No.	Type of person to whom willing to donate organ	Number*	%
1	Family	74	18
2	Relatives	49	11.9
3	Needy person	265	64.5
4	None of these	23	5.6

*Multiple Response

On other hand those respondents that they did not want to donate their organ, many of them reported that; 'No special reason' (55.9%), whereas 17.1% were feared that family and doctors will not save them, 14% said that family members will sell their organ (14.0%) and few (12.9%) said that it's against my religion. (Table 4)

Table 4
Reasons for not willing for organ donation (N=170)

S. No.	Reasons for not willing for organ donation	Number	%
1	Feared that family and doctors will not try to save him/her	29	17.1
2	Family members will sell their organs	24	14.1
3	It's against my religion	22	12.9
4	None specific reasons	95	55.9

IV. DISCUSSION

In the present study willingness for donate their organ were only in 50.4% of participants whereas 20.9% did not want to donate and 28.7% did not decide. Almost similar observations were made by Prassana Mithra et al (2013)⁸ and Ravindra Ahlawat et al. (2013)⁹ who reported willingness for organ donation in 59.6% and 55% of the participants respectively. Although Annadurai et al. (2012)¹⁰ observed that majority of them (43%) said they will think about donation their organs. 16.8% said they won't consider donation of their organ. Ravindra Ahlawat et al. (2013)²⁰ also reported that 27% were undecided.

In present study females were in more willing to donate their organs than males (55.2% v/s 44.8%). Mithra (2013)⁸ also reported preponderance of females in willingness to donate organ i.e. 64.1% females and 35.9% in males participants.

The most common reason found for willingness in this study was 'I could save many life from donating my body' i.e. in 80.8% followed by 'After death I will be alive' response (51.5%), 'It's saintly work' response (50.6%), 'Society will be benefited' response in 42.2% and 'On being motivated by media and people ' response in 35.8% of participants. It can be observed that a quantifiable (35.8%) of participants were motivated through media. So to promote organ donation, awareness for organ donation should be encouraged by various medias.

It was also observed in this study that majority of respondents reported that they want to donate their organ to 'Needy person' (64.5%), followed by family members (18%) and relatives (12 %). This also depict that in those who are willing to donate their organ social awareness is there to willing to donate their organs to needy person not only for their relatives.

When reasons for not willing to donate their organ was discovered in this study, it was found that

majority (55.9%) could not explain any reason for that while 17.1% were feared that family and doctors will not save them, 14% said that family members will sell their organ (14.0%) and few (12.9%) said that it's against my religion. Mithra (2013) ⁸ reported that 40% participants had perceived risks associated with organ donation that's why they are not willing for organ donation. So there is a need for awareness programme for breaking the myths regarding organ donation.

V. CONCLUSION

It can be concluded that from present study that willingness for donate their organ were only in 50.4% of participants whereas 20.9% did not want to donate and 28.7% did not decide. The most common reason found for willingness in this study was 'I could save many life from donating my body' followed by 'After death I will be alive' response, 'It's saintly work' response, 'Society will be benefited' response and 'On being motivated by media and people ' response of participants. And when reasons for not willing to donate their organ was discovered in this study, it was found that majority (55.9%) could not explain any reason for that while 17.1% were feared that family and doctors will not save them, 14% said that family members will sell their organ and few said that it's against my religion. It can be observed that a quantifiable (35.8%) of participants were motivated for willingness for organ donation through media and people are having myths regarding organ donation. So to promote organ donation, awareness for organ donation and its related issues should be encouraged through various medias.

CONFLICT OF INTEREST

None declared till now.

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