

## Original Research Article

# Barriers and facilitators of intention to organ donation among general people in state of Puducherry: a cross sectional study

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**Received:** 13 September 2017

**Revised:** 27 October 2017

**Accepted:** 28 October 2017

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## ABSTRACT

**Background:** Organ transplantation is taken into account one among the best advances of contemporary science that has given several patients a revived lease of life. The target of study resolve the barrier and supporter of organ donation among general public, and to spot the factors that influence organ donation assent and rejection in state of Puducherry, India.

**Methods:** A cross-sectional study had below soft on a sample of a hundred and fifty subjects handily. The eligible subjects were administered a structured inquiries to assume barriers and facilitators of organ donation. The collected information's were statistically analyzed.

**Results:** Of the one hundred fifty subjects, the age groups were 58% 20-30 years, 26% 31-40 years, 12% 41 to 50 years and 4% 51-60 years. Male constituted 33.3% and females were 66.7% of the subjects. The mean data score of the themes were  $4.74 \pm 1.45$  (1-8). 80.6% according the intention to gift organ and 19.3% weren't willing to gift organ. The foremost necessary barriers were opposition from family (82.8%) and concern (72.4%). The foremost necessary facilitators were organ donation would save someone's life (95.9%) and it improve the sense of human (95%). Education, occupation, married and financial gain square measure related to intention to gift organ.

**Conclusions:** From the offered scientific proof it's conducted that information of organ donation stay still poor and therefore the indentified barriers and facilitators ought to be taken within the account whereas motivates the overall peoples to present organ to future.

**Keywords:** Organ donation, Barriers, Facilitators, Knowledge, Puducherry

## INTRODUCTION

Worldwide, organ transplantation saves thousands of lives. the problem of organ donation is advanced and multi-factorial, involving medical, legal, ethical, structure, and social factors.<sup>1-4</sup> the sector of organ donation has concerned from the first beginnings of experimental excretory organ transplantation to the present follow of multiple organ transplantation.<sup>5</sup> The advances created are due mostly to the data within the areas of medicine and organ preservation, recipient and

donor choice and management previous post- operative care. The organ transplantation is an effective medical care for end- stage organ failure and is wide practices round the world. In keeping with WHO; excretory organ transplants are administrated in ninety one countries. Around 66,000 urinary organ donations, 21,000 liver donations and 6000 heart donations were transplanted globally in 2005.<sup>6,7</sup> Organ shortages are a worldwide drawback, however Asia lags behind abundant of the remainder of the planet. Organ donation following brain stem death is sporadic in Asian country. The present

organ donation for corpse in Asian country is 0.08 per million whereas Spain superior the list with thirty five per million. There's an enormous shortage of organs in Republic of India, and patients die whereas on the roll as they are doing not get an organ on time. Only 5% of all patients with end-stage nephrosis are made in undergoing excretory organ transplantation. The present demand within the country for excretory organ transplants is 150, 000; liver, 200,000 and heart, 150, 000.<sup>5,8</sup>

Organ donation takes healthy organs and tissues from an individual for transplantation to different, organs you'll donate include internal organs like kidney, heart, pancreas, intestine, lungs, skin, bone and bone marrow and membrane. People of all the age teams and background may be organ donors. transplantable organs and tissues be removed in a very surgical procedure; following a determination supported donor's medical and social history of which are suitable for transplantation. Transplantation is outlined because the transfer of human cells, tissues or organs from a donor to recipient with an aim of restoring operate within the body.<sup>9,10</sup> The donor regardless of age, race or gender will become an organ and tissue donor. Everyday vital varieties of individuals die due to failure of one organ within the body or alternative. One of the lives saving live for quite patient is organ transplantation. One of the lives saving live for his or her quite patient is organ transplantation. The success of human organs transplantation is steady to be improved. Receiving a human organ from a health living donor is often impractical and exposes a healthy person to risk. Therefore receiving healthy organs from a dead person are going to be ideal, because the donor is already dead and many organs may be removed from one donor.<sup>11,12</sup>

In India the rate of organ gift is just 0.16 for every million populaces contrasted with America's 26 and Spain's 35.<sup>13</sup> The deficiency of organ is for all intents and purposes a widespread issue. In spite of the fact that numerous endeavors were attempted by the administration to propel general society towards gift of organs, the rate of organ contributors has not paralleled the developing holding up list and insufficient organ gift in India remains a noteworthy restricting element for transplantation. There are a few components which could encourage and upset the overall population to give an organ. Recognizing these variables could help in arranging compelling methodologies to battle the issue. Subsequently the present examination was led with the plan to investigate the overall population's apparent hindrances and encouraging variables of organ donation.<sup>7,14,15</sup> Training programs have as of late been recommended as another approach in fathoming the organ lack. The all-inclusive community and the understudy populace specifically, should be taught about transplantation and the need to acknowledge the responsibility regarding give organs.<sup>9,16</sup> In the present examination, was to survey the obstructions and

facilitators of aim to organ gift among general individuals in condition of Puducherry, India.

## METHODS

The present study intends to assess the barriers and facilitators of intention to donate organs among the general public. The main study was conducted between 16.07.2017 to 21.07.2017. The study involved samples (n=150) who fulfilled the inclusion criteria. Eighty-seven (58%) were between the age group of 20–30 years. A male and female age aggregate falls between 20-60 years of overall population. Fifty (33.3%) samples were male and hundred (66.7%) were females. The testing methods were chosen at healing facilities, schools, transport stand, bank and houses at Puducherry. One of the first steps in clinical study is choosing an appropriate setting to conduct the study from hospital and population-based. The observations in a study may or may not be generalizable, depending on how closely the sample represents the population at large. If the sample was classified to a particular age group, sex, socioeconomic background or stage of the barrier and facilitators of organ donation. The results would be applicable to that particular group only. Hence, it is important to decide how you select your sample. After choosing an appropriate setting, attention must be turned to the inclusion and exclusion criteria.

The random sampling method has been used within the choice of limitations and facilitators of purpose to donate organs among the general public have been taken via the descriptive analysis for the prevailing examine. Using random technique, out of a hundred and fifty well-known humans, the facilitators of 121 humans of intention to donate organ and final 29 peoples of boundaries of intention to donate organs among the majority were decided on for the present examine. The present examination was resolved the barrier and facilitator of organ gift among overall population, and to recognize the elements that impact organ gift consent and dismissal in Province of Puducherry, India. Research strategy depicts investigate configuration setting populace test. Inspecting methods, test measure, consideration criteria for an example choice, advancement and portrayal of the information accumulation instrument technique for information gathering and plan for information investigation. An explorative and clear outline was received to evaluate the obstructions and facilitators in organ gift among chose open. Helpful inspecting systems were utilized to choose the specimen for the investigation. The examination was directed in the wake of acquiring assent from the members. The statistic information was gathered and survey was directed to the members and the learning, facilitators and barrier with respect to organ donation was evaluated. The results were expressed as means  $\pm$ SD. The data were analyzed by analysis of variance (ANOVA) and descriptive analysis. ANOVA test were applied to determine the variance of barriers and facilitators of intention to donate organ. A

probability level (p-value) of less than 0.001 was considered statistically significant.

## RESULTS

The present study was done to assess the barriers and facilitators of intention to donate organs among the general public. The main study was conducted between 16.07.2017 to 21.07.2017. The study involved samples (n=150) who fulfilled the inclusion criteria. Eighty-seven (58%) were between the age group of 20–30 years. Fifty (33.3%) samples were male and hundred (66.7%) were females. Fifty-five (36.7%) were had the residence in urban. The mean knowledge score of the subjects were  $4.74 \pm 1.45(1-8)$ . 80.6% reported the intention to donate organ and 19.3% were not willing to donate organ. The most important barriers were opposition from family

(82.8%) and fear (72.4%). The most important facilitators were organ donation would save someone's life (95.9%) and it improve the sense of human (95%). Education, occupation, marital and income are associated with intention to donate organ. Among the 150 samples eighty (53.3%) were having education above graduate. Regarding the occupational status seventy-eight (52%) was employed. The marital status of the samples were sixty-seven (44.7%) were single and eighty-three (55.3%) were married. One hundred and nine (86%) were Hindu. The type of family were forty-three (28.7) in having joint type and one hundred and seven (71.3%) were that of nuclear family. The association of demographic variables, source of information and knowledge with intention to donate organ are presented in Tables 1-3. Statistical analysis was performed using SPSS software program, version 11.5.

**Table 1: Associations of demographic variables with intention to donate organ (n=150).**

S. No.	Variables	Intention to donate organ		P value
		Yes	No	
1.	Age in year			0.089 (NS)
	(a) 20-30	76	11	
	(b) 21-40	29	10	
	(c) 41-50	12	6	
	(d) 51-60	4	2	
2.	Gender			0.144 (NS)
	(a) Male	37	13	
	(b) Female	84	16	
3.	Residence			0.301 (NS)
	(a) Urban	43	6	
	(b) Rural	42	13	
	(c) Semi-urban	36	10	
4.	Education			0.001 (S)
	(a) Illiterate	6	4	
	(b) Up to primary	6	1	
	(c) Elementary	19	12	
	(d) Up to higher secondary	16	6	
	(e) Graduate and above	74	6	
5.	Occupation			0.001 (S)
	(a) Employed	61	17	
	(b) Unemployed	19	11	
	(c) Student	41	1	
6.	Marital status			0.004 (S)
	(a) Single	61	6	
	(b) Married	60	23	
	(c) Divorce	-	-	
	(d) Single	-	-	
7.	Religion			0.765 (S)
	(a) Muslim	1	-	
	(b) Christian	17	3	
	(c) Hindu	103	23	
	(d) Other (specify)	-	-	
8.	Type of family			0.754 (S)
	(a) Joint	34	9	
	(b) Nuclear	84	20	

S. No.	Variables	Yes	No	P value
9.	<b>Monthly family income</b>			
	(a) Less than Rs.5000	32	17	0.009 (S)
	(b) Rs.5001–Rs.10,000	54	9	
	(c) Rs.10,001–Rs.15,000	21	2	
	(d) Above Rs.15,000	14	1	

p<0.001 level of significant, NS- Non significant (p>0.001).

**Table 2: Associations of source of information regarding organ donation with the intention to donate.**

S. No.	Variables	Intention to donate organ		P value
		Yes	No	
1.	<b>Source of information</b>			
	(a) Television	58	19	0.204 (NS)
	(b) Book	9	1	
	(c) Internet	10	1	
	(d) Friends	13	5	
	(e) Health personnel	31	3	

NS- Non significant.

**Table 3: Association of knowledge with the intention to donate organ (n=150).**

S. No.	Intention to donate organ	Knowledge score	P value
1	Yes	4.89±1.432	0.763
	No	4.10±1.37	(NS)

NS- Non significant.

## DISCUSSION

The present examination was directed with the intend to investigate the overall population's aim towards organ gift and to distinguish the apparent boundaries and facilitators. The present investigation uncovered that 80.6% of the subjects have an expectation to give their organs either amid their life. The dominant parts (80.6%) of members in our investigation knew about organ gift and these discoveries are like those of past studies.<sup>5,17,18</sup>

The examination populace said positive reaction for their own particular organ to be given. This finding was more obvious and it was considerably higher than the discoveries from a study, where 19.3% respondents showed them not willing to be living organ contributors.<sup>19</sup> It watched that TVs were the significant wellsprings of data on organ gift. 31% of the members got data through human services providers.<sup>5,20,21</sup> 19.3% were not willing to give organ. The most critical boundaries were restriction from family (82.8%) and fear (72.4%). The most critical facilitators were organ gift would spare somebody's life (95.9%) and it enhances the feeling of human (95%). Instructions, occupation, conjugal and pay are related with goal to give organ. The statistic factors like age, sex, home, religion and kind of family as a rule open uncover that there is no relationship with the goal of give organ. All things considered, certain statistic factors like training demonstrates the "p" esteem are 0.001, occupation is 0.001, conjugal status is 0.004 and wage of family is 0.009. Larger part of the general population that is, twenty-four (82.8%) don't give organ due to contradict

from the family. One hundred and sixteen (95.9%) wishes to give organ since it spares life of the general population. In this investigation demonstrated that the critical relationship between eagerness to give and sexual orientation. These outcomes were clashing to findings.<sup>22,23</sup> Females will probably be living donors than males. Table 2 appears there is a relationship of wellspring of data in regards to organ gift with the goal to give organ.

The slight elements of various parts of learning in regards to organ gift of the subjects can be discovered Table 3. At the point when subjects were gotten some information about the wellspring of data with respect to organ gift, 58% of the subjects announced that they picked up learning through TV, 31% from wellbeing work force, and 13% from companions and 9% through books and web. Like the past investigations the present examination additionally affirmed a positive relationship between open expectations to give their organ with their instructive status.<sup>7</sup> In spite of the fact that many examinations in the past announced demeanors, of open towards organ gift, the present investigation was the first of its kind to dissect particularly the hindrances and facilitators of organ gift among the overall population, this adds quality to this examination. The most well-known boundary revealed in the present examination was restriction shape family in giving their organs; these discoveries were like a past study.<sup>24-26</sup> Illicit organ gift and abuse of organ is a noteworthy issue in India for the low organ gift rate among open, this reality was reflected

even in the present investigation as 19.3% of the subjects announced abuse of an organ as obstruction to organ donation.<sup>27</sup> The most critical encouraging variables of organ gift detailed in the present investigation was thought of sparing somebody's life (95.9%), feeling of enhanced feeling of mankind (95%), to spare the life of a nearby relative (92.9%), these findings were great concurrence with the comparative study.<sup>7,28</sup>

## CONCLUSION

The majority of people 50.66% have moderate knowledge. Twenty-four (82.8%) don't give organ in view of restrict from the family and the minimum people fourteen (48.3%) stick on to the religious conviction and a similar rate says that it affronts human rights and conviction. Lion's share of the general population one hundred and sixteen (95.9%) says that organ gift spares somebody's life and the minimum thirty-three (27.3%) give organ for monetary advantage. There is importance in certain statistic factors like training that demonstrates the "P" value is 0.001, occupation is 0.001, marital status is 0.004 and income of family is 0.009. The commitment of different wellsprings of data in furnishing respondents with learning about organ gift was negligible. For the most part, contemplates had demonstrated the significance of visual media in expanding the familiarity with general society about organ donation.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

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**Cite this article as:** Arunachalam D, Chandrabose GS. Barriers and facilitators of intention to organ donation among general people in state of Puducherry: a cross sectional study. *Int J Community Med Public Health* 2018;5:134-9.