

A Study on Public Intention to Donate Organ: Perceived Barriers and Facilitators

Josephine R Little Flower and Balamurugan E

Abstract

Aim: Organ donation rate in India is very poor. The factors contributing to donating and not donating an organ is not well known. Hence, the present study was conducted to identify the perceived barrier and facilitator of organ donation among general public of Puducherry, India.

Method: A cross sectional explorative study was undertaken with a sample of 400 eligible subjects from the general public of puducherry. Each participant underwent a face to face interview with the help of a structured questionnaire; data collected was analyzed using appropriate descriptive and inferential statistics in SPSS.

Result: Of the 400 subjects interviewed, the most common perceived barriers identified were opposition from family (82.8%) and fear (72.4%). The most common perceived facilitators were thought that organ donation would save someone's life (95.9%) and sense of improved humanity (95%). While associating the public intention to donate organ with select variables only educational status was found to be positively associated ($p = 0.001$).

Conclusion: From the available scientific evidence it is concluded that the knowledge of organ donation remain still poor and the identified barriers and facilitators should be taken in the account while motivating the general public to donate organ in future.

Keywords: Organ Donation, Barriers, Facilitators, Intention.

Introduction

Organ transplantation is an effective therapy for end-stage organ failure and is widely practiced around the world. According to World Health Organization (WHO), kidney transplants are carried out in 91 countries. Around 66,000 kidney donations, 21,000 liver donations and 6000 heart transplants were performed globally in 2005.¹ In India the rate of organ donation is only 0.16 per million populations, compared to America's 26 and Spain's 35.² The shortage of organ is virtually a universal problem. Though many efforts were undertaken by the government to motivate the public towards donation of organs, the rate of organ donors has not paralleled the growing waiting list^{3,4,5} and inadequate organ donation in India remains a major limiting factor for transplantation. There are several factors which could facilitate and hinder the general public to donate a organ. Identifying these factors could help in planning effective strategies to combat the problem. Hence the present study was conducted with the aim to explore the general publics perceived barriers and facilitating factors of organ donation.

Materials and methods

The present study was a cross sectional, exploratory survey conducted among the general public of Puducherry U.T, India. 400 eligible subjects who fulfilled the following criteria were included a) Subjects aged 18 and above, and b) who understand either the local language Tamil or English. Subjects with intellectual, psychiatric and emotional disturbances that could affect the reliability of their responses were excluded from the study. The population registry in the primary health centers of the selected community area was used as a sample frame to

select subjects randomly. Every eligible subject was explained about the purpose of the study and signed a written consent form. Formal ethical clearance was obtained from the institute ethics committee before actual data collection procedure.

Preparation of the questionnaire

An extensive literature review was carried out to understand the possible barriers and facilitators reported in the past. Reported barrier and facilitating factors in the literature were included in constructing the questionnaire, including specific cultural and religious oriented items specific to Indians. Subject's intention to donate the organ was assessed using a single dichotomous question (yes or no). For assessing the barriers and facilitators related to organ donation a questionnaire with a total of 18 items (9 items each) was prepared in the form of closed ended question i.e. yes or no. Along with closed ended questions, an open ended question i.e. any other? was also included for obtaining an extended response apart from the framed questions. As knowledge is an important factor which could serve both as a barrier and facilitator for organ donation, 8 items related to knowledge were also included as a part of the questionnaire. Knowledge items of the questionnaire were evaluated by assigning a score of 1 for each correct response with a maximum possible score of 8. Interpretation of the knowledge component was also done by categorizing the knowledge as follows - Below 50% of the total score - Inadequate knowledge, 51 – 75% - Moderately adequate knowledge, above 75% - Adequate knowledge, for ease of understanding. The draft tool was validated for its content by 10 experts from the field of surgery, medicine, nursing, anthropology and psychology for its appropriateness. After

appropriate modification the content validity index for the tool was calculated and it was found to be highly valid (0.98). The reliability of the tool was estimated by a test re-test reliability method among 10 subjects with an interval of 2 weeks from the first and second time of administration of the questionnaire. It was found to be highly reliable with reliability coefficient of 0.91. A face to face interview method was used to collect data from each subject. Collected data was analyzed using SPSS for windows version 14 (SPSS Inc., Chicago, IL, USA) with appropriate descriptive and inferential statistics. A probability value of < 0.05 was set as the level of significance

Results

Basic Demographic details

Of the total 400 subjects enrolled the majority were male (56%), between the age group of 31-40 years (48%), and followed Hinduism (68%) at the time of interview. Most of the subjects were literate (70%) with education up to high school and resided in a rural area (53%).

Figure 1: Distribution of source of information regarding organ donation among the subjects.

Source of Information about organ donation

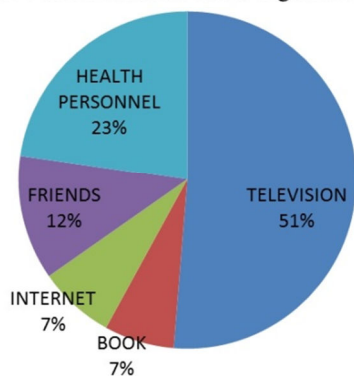


Table 1: Item wise distribution of different aspects of knowledge regarding organ donation (n=400)

S. No	Aspects of Knowledge	Correct response	Incorrect response
1.	Definition of organ donation	24%	76%
2.	Knowledge regarding Commonly donated organ	71.3%	28.7%
3.	Knowledge regarding Consent procedure for living donor	76%	24%
4.	Knowledge regarding Consent procedure after death	84.7%	15.3%
5.	Knowledge regarding Consent for mentally retarded person	41.3%	58.7%
6.	Knowledge regarding Consent for unclaimed dead bodies	35.3%	64.7%
7.	Knowledge regarding Organ matching procedure	85.3%	14.7%
8.	Knowledge regarding legal consideration for organ donation	56%	44%

Table 2: Perceived Barriers towards organ donation (n=121)

S. No	Barrier factors	Percentage
1.	Oppose from the family	82.8%
2.	Fear	72.4%
3.	Procedures are complicated	69%
4.	Affects physical appearance	65.5%
5.	Affects the future	58.6%
6.	Create psychological problem	58.6%
7.	Organs could be misused	55.2%
8.	Against religious belief	48.3%
9.	Insults human rights and dignity	48.3%

Table 3: Perceived Facilitators towards organ donation (n=279)

S. No	Facilitating factors	Percentage
1.	Save someone's life	95.9%
2.	Improve the sense of humanity	95%
3.	Save the life of a close relative	92.6%
4.	Wishes organ to be alive after death	92.6%
5.	To become a role model	77.7%
6.	Empathy for others	53.7%
7.	Rewarding experience	51.2%
8.	Due to family pressure	29.8%
9.	For economic benefit	27.3%

Knowledge regarding organ donation

The mean knowledge score of the subjects regarding organ donation was 4.74 1.45 score which ranged from a minimum score of 1 to a maximum score of 8. Most subjects responded correctly to questions related to organ matching (85.3%) and consent procedure (84.7%). Details of different aspects of knowledge regarding organ donation of the subjects can be found in Table 1. When subjects were asked about the source of information regarding organ donation, 51.3% of the subjects reported that they gained knowledge through television, 23% from health personnel, and 12% from friends and 7% through books and internet (Figure1). While categorizing knowledge scores the majority of the subjects (38.6%) had inadequate knowledge, 50.6% had moderate knowledge and only 10.6% had adequate knowledge regarding organ donation.

Intention to donate organs: Barriers and Facilitators

Of the total 400 subjects interviewed 69.75% of the subjects reported that they wish to donate their organs, whereas the remaining 30.25% reported that they will not donate their organs either during their life or after their death. Subsequently the factors for barriers and facilitators were also analyzed using the pretested questionnaire. The most common barriers perceived by the subjects related to organ donation were as follows, 'family opposition' (82.8%), 'complicated organ donation procedure' (69%), 'fear that donation affects their future' (58.36%), and 'misuse of organs' (55.2%). More

information about barriers is detailed in Table 2. The most important facilitating factors of organ donation as reported by the subjects were 'thought of saving someone's life' (95.9%), 'feeling of improved sense of humanity' (95%), 'to save the life of a close relative', 'thought that their organ live after their death (92.6%) and 'being a role model for others' (77.7%). More details of facilitating factor can be seen in Table 3

While associating the subject's intention to donate organs with demographic variables like age, gender, residence, education, religion, marital status, type of family and knowledge; only educational level had a significant association with the subject's intention to donate organ. Specifically graduate people are more likely to report intention to donate organ their organs than others ($p < 0.001$).

Discussion

The current study was conducted with the aim to explore the general public's intention towards organ donation and to identify the perceived barriers and facilitators. The present study revealed that 69.7% of the subjects have an intention to donate their organs either during their life or after their death, which is similar to the finding of Chung et al⁶ and Shahbazian H et al⁷. Similar to the previous studies⁸ the current study also confirmed a positive association between public intentions to donate their organ with their educational status. Though many studies in the past reported attitudes^{9,10} of public towards organ donation, the present study was the first of its kind to analyze specifically the barriers and facilitators of organ donation among the general public, this adds strength to this study. The most common barrier reported in the present study was 'opposition from family in donating their organs'; these findings were similar to a previous study.⁶ Illegal organ donation and misuse of organ is a major problem in India for the low organ donation rate among public¹¹, this fact was reflected even in the current study as 55.2% of the subjects reported misuse of an organ as barrier to organ donation. The most important facilitating factors of organ donation reported in the present study was 'thought of saving someone's life' (95.9%), 'feeling of improved sense of humanity' (95%), 'to save the life of a close relative' (92.9%), these findings were similar to the findings of Neelam et al conducted in India¹². The majority of the respondents in this study reported "lack of information" about organ donation and transplantation. These findings are comparable with those reported from previous studies, which all indicate the importance of public education about the importance of organ donation^{13,14,15,16}. Our study identified that the principle respondents' source of information about organ donation was the television (TV). The contribution of other sources of information in providing respondents with knowledge about organ donation was minimal. Generally, studies had shown the importance of visual media in increasing the awareness of the public about organ donation.^{17,18}

Conclusion

Better knowledge may ultimately translate into the act of donation. Effective measures should be taken to educate people with relevant information with the involvement of media, doctors and religious scholars.

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Competing Interests

None declared

Author Details

G. JOSEPHINE R LITTLE FLOWER, M.Sc(N), M.A (Psy), M.Phil(Soc), BGL, MBA, PhD, Nursing Advisor to the Government of India, Nirman Bhavan, New Delhi, India. BALAMURUGAN E, R.N, R.M, M.Sc(N), Staff Nurse, Government General Hospital, Kamaraj Salai, Karaikal, Puducherry, India
CORRESPONDENCE: Balamurugan E, Staff Nurse, Government General Hospital, Kamaraj Salai, Karaikal, Puducherry.U.T, India.
Email: bmbalanursing@gmail.com

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