

Knowledge, Attitude and Practice Regarding Organ Donation among a selected Adult Population of Kannur District, Kerala

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Abstract

Background: To study a selected adult population of Kannur, Kerala with regard to their knowledge, attitudes and practices towards different aspects of organ donation.

Methods: A Cross-sectional study was done in a population of 225 patients attending the outpatient department of a primary health center in Kannur district of North Kerala to study their knowledge, attitudes and practices towards organ donation. Participants selected by simple random sampling were assessed using a semi-structured interview schedule with a pre-tested questionnaire containing socio—demographic variables and questions directed at different aspects of their knowledge, attitudes and practices towards organ donation. Statistical analysis was done using SPSS v21.

Results: Amid 225 participants 218 had heard of organ donation. Our study found that 69.3 % had positive attitude towards organ donation , amongst which 16.1% had expressed strong motivation to donate irrespective of the circumstances. Most important factors influencing their decision to donate organs were health status and relationship to the recipient. 61% considered abuse and misappropriation of their donated organs to be a possibility. Most respondents 94% would authorize consent of donation of a deceased person's organ to either his/her family or spouse. Regarding mentally unsound people, majority wanted parents or guardian to give consent for organ donation. 92% were in favor for promotion of organ donation. Majority preferred organ recipients to be a family member 52%, younger 57% and physically and mentally sound. Respondents were largely unwilling to donate to an alcoholic or a smoker. Legislations governing donations were considered a must by most 94%.

Conclusion: Though largely aware, the willingness to donate organs among public is low. Socio-demographic characteristics, emotional factors and laws to ensure appropriate use of donated organs influence the public willingness to donate. Educational and behavioral change campaigning is the need of the hour.

Keywords: Organ donation, Knowledge, Attitude, Practice, Kannur

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Introduction

Organ donation is defined as the removal of tissues from the human body, from a living or dead person, for the purpose of transplantation as a treatment modality[1]. Organ transplantation is the most preferred treatment modality for end-stage organ disease and organ failures[2].

Organ transplants save thousands of lives every year. The success rates of transplant surgery have improved remarkably. It offers a better quality of life and also has better long term survival benefits. The supply of cadaver organs is especially crucial for heart, lung and liver recipients, since these patients cannot be maintained for long on mechanical devices, unlike patients with end-stage renal disease (ESRD) who can be maintained on dialysis[3]. Patients in need for transplantation often have to wait long for a donor organ.

There is an increasing discrepancy between the number of patients on the waiting list for organ transplantation and the available number of deceased donor organs[3]. The result: some of these people die while waiting for that "Gift of Life". According to World Health Organization (WHO), with the rise in cases of kidney disease and renal failure, there are at least 200,000 people on waiting lists for kidneys. Different approaches are taken to meet this demand like live donation and cadaveric donation[4].

Statistics from Indian subcontinent reveal, from 2013 to 2018, **49155** transplants were reported in India, including 39000 living-donor organ recipients and 10155 deceased-donor organ recipients.[5] India's Organ Donation Rate (ODR) is a very low 0.34, Which means that per million people in India, only 0.5 people donate their organs[6]. It is very low when compared to other world nations.

Kidney transplants are the most commonly performed. Transplants of the heart, liver and lungs are also regularly carried out. As

medicine advanced, other vital organs (including the pancreas and small bowel) are also being used in transplants. Tissue such as eyes, heart valves, skin and bone can also be donated.[7]

Corneal transplantation or keratoplasty is the most commonly performed and also the most successful allogenic transplant worldwide.[8] Despite being the most commonly performed transplant the knowledge about corneal transplantation among people is very poor. A study conducted among Singaporean youths found that the most common reason for being undecided to donate corneas was participants' insufficient knowledge of corneal donation and transplantation. [9]

According to a study by the U.S. Agency for Healthcare Research and Quality (AHRQ), people often do not have all the information they need to make decisions about donating a family member's organs nor do they have a clear understanding of the donation process[10].

In this context the present study was conducted to evaluate the knowledge, attitudes and practices about organ donation among the general population attending the outpatient department of a Community Health Center in northern part of Kerala.

Materials and Methods

A Cross-sectional study was done in a population of 225 patients attending the outpatient department of a primary health center in Kannur district of North Kerala to study their knowledge, attitudes and practices towards organ donation. Study was held from 1st January 2020 to 31st January 2020. Participants were selected by simple random sampling technique. Knowledge, attitude and practice regarding organ donation was assessed using a semi-structured interview schedule with a pre-tested questionnaire containing sociodemographic variables and questions directed at different aspects of their knowledge, attitudes and practices towards

organ donation. Informed written consent was obtained from each subject following a detailed explanation of the objectives and protocol of the study. Statistical analysis was done using SPSS v21.

Results

Among 225 people who participated in study 126 (56%) were males and 99 (44%) were females.

People with different occupations were included in the study. Majority were non-government employees. Majority of the

study participants were literate but the level of education varied. Also 100% of the study population had house, gas supply, accessibility to clean portable water, three square meals a day, electricity and good sanitation facilities.

42.2% of the study population belonged to the Hindu community, 38.7 % belonged to the Christian community followed by 16% Muslim and 3.1% were atheist.

46.7% of the study population was married, 44.4% of the study population was single, 8% was engaged and 0.9% was divorced

Table 1: Socio Demographic Profile

Socio-demographics		Male	Female	Total
Age (Years) n=225	<25	35 (27.8)	24 (24.2)	59 (26.2)
	26 - 35	34 (27)	25 (25.3)	59 (26.2)
	36 - 45	16 (12.7)	24 (24.2)	40 (17.8)
	46 – 55	15 (11.9)	17 (17.2)	32 (14.2)
	56-65	20 (15.9)	06 (6.1)	26 (11.6)
	>65	06 (4.8)	03 (3)	09 (4)
	Total	126 (56)	99 (44)	225 (100)
Religion n=225	Hindu	50 (39.7)	45 (45.5)	95 (42.2)
	Muslim	11 (8.7)	25 (25.3)	36 (16)
	Christian	61 (48.4)	26 (26.3)	87 (38.7)
	Ethicist	04 (3.2)	03 (3)	07 (3.1)
Marital Status n=225	Single	59 (46.8)	41 (41.4)	100 (44.4)
	Engaged	08 (6.3)	10 (10.1)	18 (8)
	Married	58 (46)	47 (4.5)	105 (46.7)
	Divorced	01 (0.8)	01 (1)	02 (0.9)
Education n=255	No formal	0 (0)	02 (2)	02 (0.9)
	Primary	51(40.5)	20 (20.2)	71 (31.6)
	High school	70 (55.6)	67 (67.7)	137 (60.9)
	Higher secondary	02 (1.6)	03 (3)	05 (2.2)
	Post graduation	03 (2.4)	07 (.1)	10 (4.4)
Occupation n=225	Student	30 (23.8)	11 (11.1)	41 (18.2)
	Housewife	0 (0)	47 (47.5)	47 (20.2)
	Self employee	32 (25.4)	09 (9.1)	41 (18.3)
	Government staff	23 (18.3)	11 (11.1)	34 (15.1)
	Private employee	18 (14.3)	10 (10.1)	28 (12.4)
	Retired	16 (12.7)	0 (0)	16 (7.1)
	Volunteer	0 (0)	04 (4)	04 (1.8)
	Unemployed	07 (5.6)	07 (7.1)	14 (6.9)

The study found that 96.8% of people who participated in study had heard of organ donation whereas 3.2% has not heard of organ donation.

Sources of knowledge

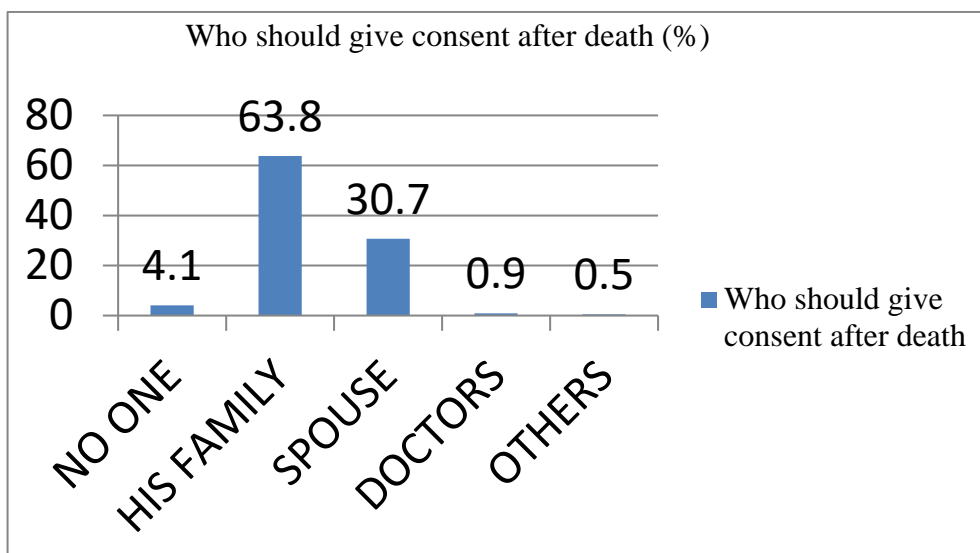
Sources of information regarding organ donation

	Frequency	Percentage
Heard from a doctor/hospital	41	18.8
Internet/online source	67	30.7
Television	180	82.5
News paper	195	89.4
Radio	32	14.6
Friends/ colleagues	71	32.5

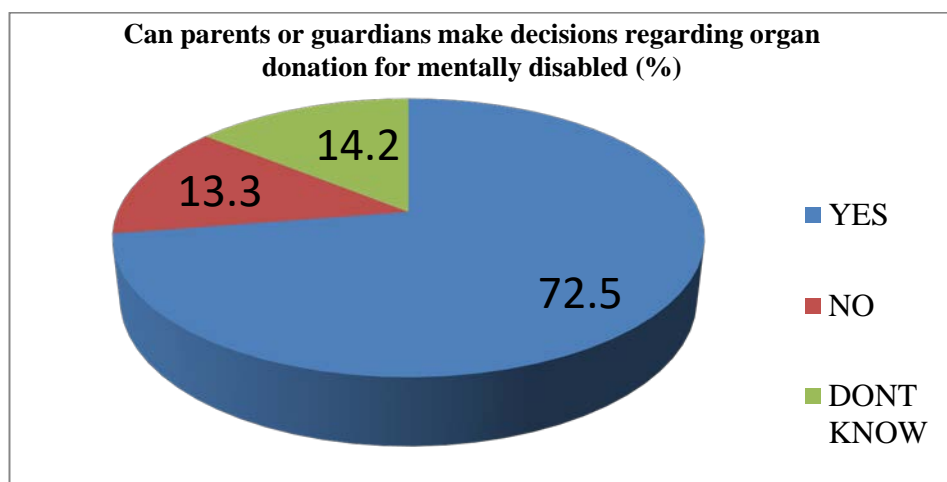
The attitude towards organ donation is varied among the study population. 69.3% had a positive attitude towards organ donation of which 16.1% was strongly motivated to donate organs irrespective of the circumstances. 26.6% would donate organs only in special circumstances. The

special circumstances cited were family member or friend or relative in need of organ.

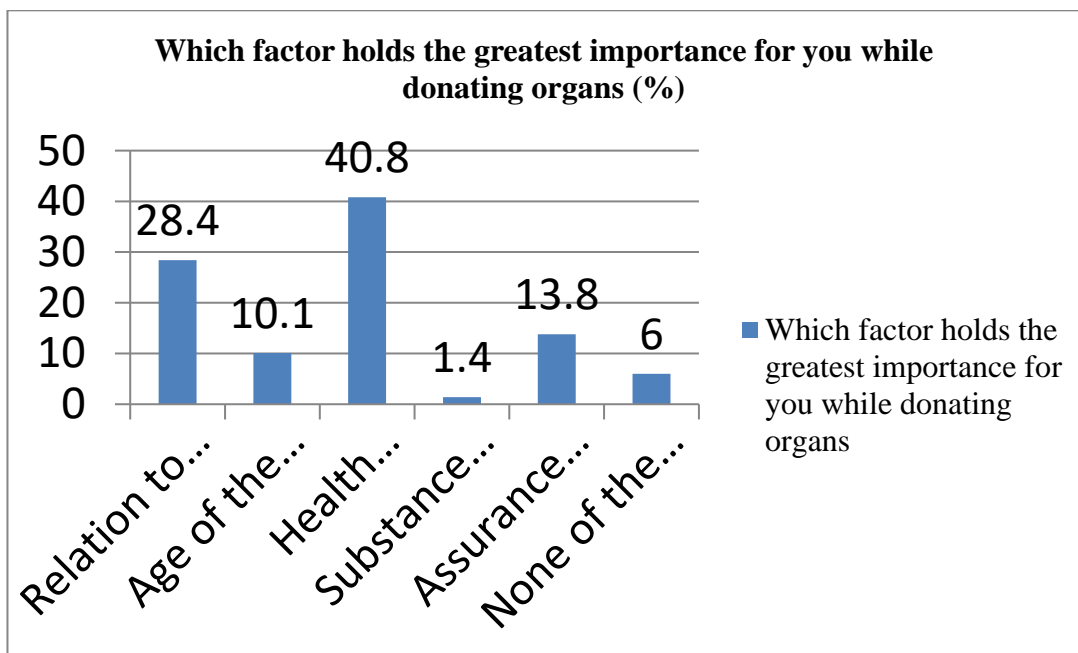
Regarding who should give consent for organ donation after death 63.8% think family members should be giving consent for organ donation.



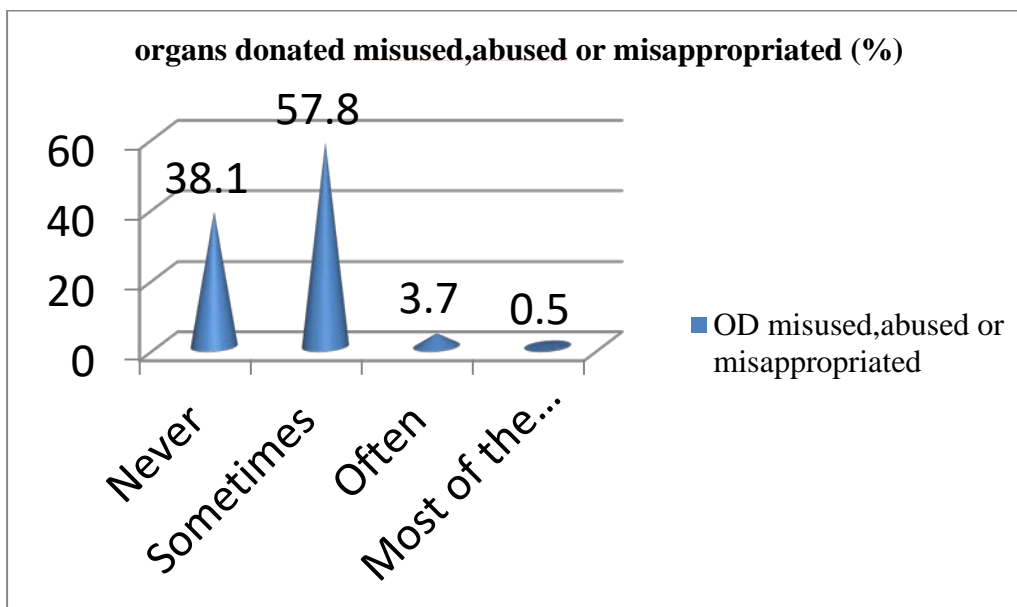
Our study found 72.5% of people think parents can make decision regarding organ donation in case of mentally disabled people.



The study found that the health status of the recipients holds greatest importance while donating organs.



57.8% of the study population thinks organs donated are sometimes being misused abused or misinterpreted.



94% of the study population is of the opinion that strict laws should be there to govern organ donation. 92.2% of study population believes organ donation should be promoted.

Discussion

Our aim was to study knowledge, attitude and practices regarding organ donation in a selected population of north Kerala. Our study showed that the awareness of organ

donation was 96.8% among study population. The awareness is high when compared to those found in other studies. In a community based study conducted in urban Puducherry the awareness of organ donation was found to be only 56.7%. [11] This may be attributed to high literacy rate and higher socio economic status of Kerala. The literacy rate in Kerala is 96.2 %

according to 2021 census.[12] All our study participants were also literate.

Regarding the source of information on organ donation 89.4% of the study population cited news paper 82.5% cited television 18.8% cited doctors, 30.7% cited internet, 14.6% from radio 32.5% from friends and colleagues. This is in accordance in a study conducted in Lanja rural India which found television was the source for 55.2%, newspaper 45.8%, internet 22.4%, radio 14.9% and family 13.9%, schools 3.5%, doctors /medical care professionals 3%. This means major sources of information was mainly through printed and electronic media and only minority gained knowledge through health functionaries.[13]

Our study found that 69.3 % had positive attitude towards organ donation, amongst which only 16% had expressed motivation to donate irrespective of circumstances. A similar finding was observed in another study conducted in Kerala where only 47.8% showed willingness to donate organs. [14] This findings is almost similar to studies done in south Kerala ¹⁵ and Pune. [16]

Schauenburg H and Hildebrant A found that only 17.3% of participants were seriously thinking, 54.5% were somewhat thinking to donate organs.[17]

Our study found the most important factors influencing the decision to donate where health status and relationship to the recipient. Majority preferred organ recipient to be family members 52% younger age group 57% and physically and mentally sound. Study conducted by Irvin et al also found that many participants were willing to donate organs to a family member or friend even If they would not consent to deceased organ donation nor provide a living donation to somebody they do not know.[18]

A study conducted in north India found that the most important factor that one would consider before donating an organ among

males was relation with the recipient 43%.[19]

Our study also found that majority was unwilling to donate to smokers and alcoholics. In a study conducted in Puducherry it was found majority of the participants said that they would like to donate their organs to non-smoker (86.9%) and non-alcoholic (90%) respectively.[11]

61% of our study population fear about the possibility of misuse or misappropriation of donated organs.A study conducted in US found that most common reasons for not wanting to donate organs were mistrust (of doctors/hospitals, and organ allocation system), belief in black market for organs in US and deservingness issue.[20] The study also found that people were unwilling to donate organs to someone who brought on his or her own illness, or who could be a bad person.[20]

94% of our study population thinks there is need for having effective laws to govern the process of organ donation. In a study conducted among medical students of India it was found that 83% of the students felt that there is a need for effective laws to regulate the process of organ donation.[21] Another study conducted in India found that Sixty-seven percent of the participants felt a need to have effective laws to govern organ donation.[22]

92.2% of our study population felt organ donation should be promoted. Another study conducted in India it was found that 87.5% of the participants felt that organ donation needs to be actively promoted among the population.[22] A study conducted by Deepthi et al in India found that 95.9% of participants thought that there is need to create awareness in the public to promote organ donation.[22]

Conclusion

Though largely aware, the willingness to donate organs among public is low. Socio-demographic characteristics, emotional factors and laws to ensure appropriate use

of donated organs influence the public willingness to donate. Educational and behavioral change campaigning is the need of the hour.

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