

# Knowledge and Attitude Towards Organ Donation Among Medical Students

NAJMA SHOAB<sup>1</sup>, NIDA YOUSAF<sup>2</sup>, ROMAN AKRAM<sup>3</sup>, ASMA INAM<sup>4</sup>, SABOOHI SAEED<sup>5</sup>

<sup>1</sup>Associate Professor, Head Department of Forensic Medicine, Azra Naheed Medical College, Superior University, Lahore

<sup>2</sup>Post graduate Resident of Forensic Medicine, Post Graduate Medical Institute, Lahore

<sup>3</sup>Post graduate Resident of Anesthesia, Sharif Medical City Hospital, Lahore

<sup>4</sup>Associate Professor, Department of Pharmacology, Azra Naheed Medical College, Superior University, Lahore

<sup>5</sup>Professor, Head of Department of physiology Azra Naheed Medical College, Superior University Lahore.

Correspondence to: Najma Shoaib, Email: [najma.shoaib60@gmail.com](mailto:najma.shoaib60@gmail.com), Cell: 0307-4432809

## ABSTRACT

**Objective:** To analyze the knowledge and attitude among medical students regarding organ donation.

**Study design:** A cross sectional study

**Placement and Duration:** The study was conducted during the period of six months from September 2019 to March 2020 at Azra Naheed Medical College Lahore.

**Materials and Methods:** Sample size was 150 a predesigned close ended questionnaire was used to collect data, out of which 8 incomplete questionnaires were excluded. SPSS version 21 was used to analyze the data.

**Results:** Overall, 130 respondents were aware of the term organ donation out of which 74 wish to donate their organs. The main barriers related to organ donation during life and after death include mainly religious beliefs, fear of surgical procedures, misconception that they cannot donate because of some medical illness, having a cultural belief that the body should be kept intact after death or having a fear that their body will be disfigured after donating an organ. 90.8% respondents believe that there is a need to promote organ donation. Greater load of information come from social media.

**Conclusion:** It can be concluded that there is a need to promote organ donation. Identified barriers should be taken in the account while motivating the population to donate in future.

**Key words:** Organ donation, Attitude, Barriers

## INTRODUCTION

Organ donation is the donation of biological tissue or an organ of the human body from a living or dead person to a living recipient in need of a transplantation. Organs can be donated from living persons or from deceased. Common organs donated are kidney, heart, lungs, liver, pancreas and intestine. Tissues like cornea, skin, bone and bone marrow can also be donated.

In case of donations from cadavers, cause of the death, medical history and speed with which organs can be harvested, are the factors affecting the suitability of organs for transplantation. Viability time of organs within which they can be used for transplantation is different for different organs like nervous tissue remain viable for few minutes, muscular tissue can be harvested within 6 hours and skin in 12 hours. Whereas, in living donors that remaining organ continues to function properly, so donors make a conscious decision to donate an organ, such as a kidney. Organ donation saves thousands of lives worldwide. In South Asia and Pakistan however living donors form the major bulk of organ donation<sup>1</sup>. Pakistan is an underdeveloped Muslim country of more than 190 million population. Transplantation is now considered as an ideal treatment plan for end organ damage. Last treatment option for a patient with renal failure is replacement, otherwise he will die or will be dependent on dialysis for rest of his life<sup>2</sup>. Exact figure for Pakistan is not accessible but past assays showed that more than 50,000 people die every year due to end organ damage. This figure includes 15000 people with renal failure, 10000 with hepatic failure and 6500 with cardiac failure. Major amplitude of these patients can be saved if they get their desired organs in time<sup>3</sup>.

Organ donation has become an important mythical affair for study discussion in Pakistan. Main areas of concerns are the flourishing trends of transplantation, poor legislation and abuse of basic human rights. These causes led to the implementation of an ordinance in 2007, "transplantation of human organs and tissue ordinance 2007", to control and regulate the transplantation of human organs and tissues<sup>4</sup>. Regarding donation of organs or tissues by a living person, this ordinance mentions that anyone who is more than 18 years can donate his organs. No restriction of age for stem cell transplant among siblings. According to law, corpses' organs can also be used for transplantation in Pakistan. When natural respiratory and cardiac functions ceased and attempts to restore them failed, patient is declared as dead according to this law. At this time organs can be harvested if the patient is a registered donor or the relatives gave the permission to do so.

Playing with the poverty of poor by trading their organs does not match with the virtue and culture of the society. Any attempt to label a monetary value to human body is against human dignity. But as 40% of our population lives below the poverty line, unfortunately paid donation has become the trend in our setup. According to an assay paid donation shares 50% of all transplantation in Pakistan<sup>5</sup>. Paid donation is illegal according to the ordinance. Public's level of understanding regarding this ordinance is important for its implication. Currently we are facing two important issues; one is the lack of organ donors. Though organ donation can save millions of lives, many people give up their lives while waiting on a list. Almost 70% patients are added to an organ waiting list every day and 18 people die every day waiting for an

organ<sup>3</sup>. Second problem is the frightening aspect of organ trafficking in developing countries of organ tourism. Pakistan is one of the preferred spots across the world for organ trafficking<sup>6</sup>.

The pervasiveness of knowledge regarding organ donation ranges from 60-89% with different knowledge variables<sup>7</sup> and the results vary with the social standing of the country. Unfortunately a major load of the research data in this context mainly obtained from prospered countries. Knowledge and awareness regarding organ donation is highly associated with motivation<sup>8</sup>. To motivate the public, the president of Pakistan on 17 march 2010 donated his organs after signing a land mark bill to legalize the transplantation in the country<sup>9</sup>.

There is a scarcity of information in this discipline in Pakistan. Very few studies have been conducted to overcome apprehension regarding organ donation .Therefore aim of this study was to spread knowledge regarding organ donation in Pakistan. This information will help in organizing more awareness programs in future.

**MATERIAL AND METHODS**

A cross sectional study was conducted at Azra Naheed Medical College, Lahore .All the respondents were medical students. Sample size was 150. A pre designed close ended questionnaire was used to collect data from the students participating in the study. All participants were explained for the purpose and process of the study. Eight incompletely filled questionnaires were excluded from the study. The data was analyzed using SPSS 21 version for windows.

**RESULTS**

Of the total 142 respondents, 130 have heard about the term organ donation while 12 have not. Regarding the query 'wish to donate his/her organs ever in life or after death' 74 respondents wish to donate while 68 do not want to donate their organs neither in life nor after death.

Table 1: Socio demographic characteristics of study group.

Variables	Frequency	%age
Gender:		
Male	74	52.1
Females	68	47.9
Age:		
18-22 years	112	78.9
22-25 years	26	18.3
More than 25 years	4	2.8
Education:		
Medical	142	100
Non-medical	0	0.0
Religion:		
Muslims	142	100
Christians	0	0.0
Any other	0	0.0

The barriers perceived by the subjects related to organ donation were as follows; respondents do not want to donate because of religious beliefs (46.5%), 45% have a fear of surgical procedures, 26% have a misconception that they cannot donate because they are suffering from some medical illness, 52.9 % have a cultural belief that body

should be kept intact after death while 28.8% have a fear that their body will be disfigured after donating an organ.

64% respondents want to donate their organs to family member while 21 percent want to donate to someone they don't know.

In response to query that whether organ donation should be promoted or not , 90.8 % respondents believe that organ donation should be promoted , those who are not in favor of promotion of organ donation have constraints mainly including fear of wastage of organ (35.2%) , religious beliefs(12.7%) , violation of human rights and organ trafficking (21.8%).

The major source of information came out to be the social media (54%).

Table 2: Knowledge variables regarding organ donation

Variables	Freq.	%age
Are you familiar with the term organ donation? 1.Yes 2.No	130 12	91.5 8.5
Are you familiar with the term organ transplantation? 1.Yes 2.No	135 7	95.0 5.0
Do you know anyone who has donated an organ? 1.Yes 2.No	98 44	69.0 31.0
Do you ever think of donating your organs in life or after death? 1.Yes 2.no	74 68	52.1 47.9
I am not fully aware of the term organ donation? 1.Yes 2.No	78 64	54.9 45.1

Table 3: Attitude variables regarding organ donation

Variables	Strongly Agree		Agree		Strongly Disagree		Disagree	
	n	%	n	%	n	%	n	%
General attitude towards organ donation	4	31	88	62	2	1.4	8	5.6
My religion does not agree with organ donation	1	9.9	52	36.6	17	12	59	41.5
I have a cultural belief that my body should be kept intact after death	1	8.5	63	44.4	11	7.7	56	39.4
I have fear of surgical procedures	1	7.7	53	37.3	20	14.1	58	40.8
I have some medical issues that's why I cannot donate my organs	8	5.6	29	20.4	28	19.7	77	54.2
I have a fear that my body will be disfigured after donation.	6	4.2	35	24.6	16	11.3	85	59.9

## DISCUSSION

Organ donation is a community service, which saves lives, improves quality of life and has caused benefit to society. The current study was aimed to explore the intentions among medical professionals towards organ donation.

In our study 91% respondents were aware of the term organ donation which is higher when compared to an earlier study conducted by Ashraf O et al. (2005) in Pakistan which shows the same variable at 65.5%, reason could be the medical students selected as study group which include only the medical students and being related to medical profession they have a better knowledge regarding organ donation, second reason could be the different knowledge variables used in our study<sup>3</sup>. The second aim was to explore the attitude towards organ donation, in our study 52% participants want to donate their organs out of which 64% wish to donate to their family member; these results are comparable to data obtained from the neighboring countries like China. In a study conducted in China by Zhang L et al. (2007) , 49.8 % individuals indicated that they would be willing to donate their organs and out of which 62% designated their close relatives as their most probable recipients. 10 Furthermore a study from Qatar conducted by El Shoubaki H et al. (2005) reported that the majority of the subjects gave preference donating their organs to their close relatives and friends.<sup>11</sup> Consequently we can explain our findings on the basis of the fact that joint family system has strong roots in Pakistan.. Furthermore donation of the organ to a family member might be considered as absolute necessity or it might arise from a feeling of love and affection for the family member. Likewise the donor has firm belief and trust that the recipient is the most deserving patient whom he knows personally that particular recipient has a certain end organ disease.

In our study 54.6% participants were of the view that religion does not prohibit organ donation that's why they showed their consent to donate their organs in future if needed. In contrast to them rest of the respondents expressed disagreement over organ donation because they think their religion puts restrains over organ donation. Our study results are comparable to a previous study conducted in Faisalabad by Khan N et al. (2011) which shows a slightly large proportion of respondents agreeing with the idea of organ donation having belief that religion does not stop anybody for donating.<sup>12</sup> Comparing with another similar study by Carlisle D (1995) showed that the cause behind reluctance to donate organs was lack of knowledge and awareness of population, regarding religious proclamation about organ donation .<sup>13</sup>

Ninety percent of respondents favored promotion of organ donation .This data is comparable with a study in Brazil conducted by Coelho JC et al. (2007) which reported 87.6% of participants were in favor of organ donation .<sup>14</sup> Our current study results are similar with results of previous study by Saleem T et al. ((2009) in Pakistan, where the greater load of information came from the social media. <sup>15</sup> It can be derived from previous studies that visual media help in enhancing the understanding on public level..

## CONCLUSION

It is concluded from our results that the awareness level regarding organ donation is fairly high among medical students but still there is discrepancy between knowledge and attitude. Many students do not wish to donate despite having enough knowledge. Negative attitude towards organ donation is basically due to religious beliefs and perceived risks to the donor. Mass awareness campaigns should be promoted to improve the social acceptance and reduce misconception regarding organ donation. This subject should be dealt emphatically to treat ethical, social and religious issues as negotiable prospects.

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