



## KNOWLEDGE AND ATTITUDE TOWARD ORGAN DONATION IN ARDABIL CITY

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### ABSTRACT

**Introduction:** The vital organs transplantation such as the heart, kidney, liver and lung is very important in scientific and social circles and has improved the quality of life of patients and increased life expectancy in patients with advanced organ failure. The issue of organ donation in patients at death time is one of the most important and challenging moral issues in societies that in different cultures and religions occurred based on the values and the relevant laws. The aim of this study was to survey the attitude and awareness of Ardabil city people towards organ donation. **Methods:** This was a descriptive cross-sectional study that has been done on 200 Ardabil citizens over the age of 18 which selected randomly from the society. The data collected by a questionnaire and then analyzed using descriptive and analytic statistical methods in SPSS version 16. **Results:** 54% of people were women and the rest were men and 46% of the respondents had graduate and postgraduate degrees. 62% of the people with the average income and the most source of information for people is broadcasting. The highest level of awareness of the subjects was included the difference in brain death from coma with 73% and was the non-contradiction between donation of a member to religion with 69.5%. The highest level of attitude of individuals was the non-contradiction between the organ donation and the normal course of life and death with 70% and the opposite to the financial motivation of individuals for organ donation with 66%. **Conclusion:** The results of this study showed that the level of awareness of people about organ donation was in moderate level so, to encourage more people to donate, providing members for linking the needy and increasing the level of people's awareness and attitudes, programming is essential in the future.

**KEYWORD:** Attitude, awareness, organ donation, Ardebil.

### INTRODUCTION

Organ transplantation defined as a new therapeutic approach to replace the members of a person with brain death and its transplantation to needy person (Khoddami et al., 2010). The transplant of organs around the world has saved thousands of lives and improves the quality of life of patients requiring organ transplantation and change their positive attitude into the future (Schirmer et al., 2008; Safari et al., 2014). According to the European union transplantation organization in 2010, 6469 transplants were performed in Europe (Vlaisavljevic et al., 2014). One of the most important organ transplant concerns is the lack of donor organs. Depending on the type of disease, about 10-25% of the patients need a transplant will die in the waiting list. Low knowledge and wrong attitude about organ donation can be one of the factors affect the organ donation (Annadurai et al., 2012). The number of organ transplants in Iran is much lower than Europe and the United States due to the shortage of donated members. At present the rate of organ donation in Iran is about 2.3 person per one

million people and in Spain 35 person per million and in Europe and the United States there are 10-25 people per million (Amani et al., 2015). In Iran more than 15,000 brain deaths happen every year from accidents and less than 10% of them are members of the donor (Fondevila et al., 2007). The occurrence of behavior or the intention to do so by a person can be influenced by his knowledge and attitude towards that behavior (Iliyasu et al., 2014). The knowledge and attitude of people under the influence of customs, religious beliefs and cultural conditions and also organ donation needs to have a good knowledge and attitude in this field. According to a few studies in this regard, the aim of this study was to determine the level of knowledge and attitude of the people of Ardabil city toward organ donation.

### METHOD

This study was a descriptive cross sectional study that has been conducted on 200 people over 18 years of age which selected randomly from Ardabil citizens in 2017. The data collected by a questionnaire included 28

questions about demographic information such as age, sex, level of education and attitudinal information based on the Likert scale of three degrees including dissemble, agree and disregard and questions of knowledge are yes and no. Data were analyzed using descriptive and analytical methods in SPSS version 16.  $P < 0.05$  was considered significant.

## RESULTS

The average age of the people was  $32.94 \pm 13$  years. 54% were women and the rest were men and 46% of the respondents had graduate and postgraduate degrees. 62% of the people with the average income and the largest source of information for people are broadcasting. 53.7% had average awareness about organ donation. 23.6% of

people had organ donation card and 46.8% tended to receive organ donation card (Table 1). The highest level of knowledge of the subjects respectively including the difference in brain death from coma with 73%, the lack of contradiction between the donation of a member with religion (69.5%) and the lack of the possibility of returning to life in brain death subjects with 61% and all of them were statistically significant (Table 2). The highest level of attitude of individuals was the non-contradiction between the organ donation and the normal course of life and death with 70% and the opposite to the financial motivation of individuals for organ donation with 66% and 61% of people also tended to donate all their organs which was statistically significant (Table 3).

**Table 1: Demographic and general information of people about organ donation.**

Demographic characteristics		N	%
Sex	Female	108	54
	Male	92	46
Education level	Under diploma	18	9
	Diploma and higher diploma	92	46
	BSc and MSc	86	43
	PhD	4	2
Income level	Low	40	19.7
	Moderate	126	62.1
	High	34	16.7
Information resource	Broadcast	84	41.4
	Newspapers	60	29.6
	Friends	48	23.6
	Congress	8	3.9
Rate of known organ donation	Very	47	23.2
	Moderate	109	53.7
	Less	35	17.2
	Without knowledge	9	4.4
Having organ donor card	Yes	48	23.6
	No	152	76.4
Tendency to receive organ donor card in cases hadn't this card previously	Yes	96	63.1
	No	56	36.9
History of organ donation in family	Yes	53	27.6
	No	147	72.4

**Table 2: Study the knowledge rate of people about organ donation.**

Knowledge Questions	True		False		p-value
	n	%	n	%	
Different brain death from coma	146	73	54	27	0.002
Can be donated to all organs	66	33	134	67	0.004
The possibility of returning to life in people with brain death	76	38.9	124	61.1	0.01
The need for parental consent for organ donation	102	51	98	49	0.003
The donation is in contradiction with religion.	59	30.5	141	69.5	0.002
Organ donation in case of normal death	78	39.9	122	60.1	0.00
The possible transplantation of members between different races	100	50	100	50	0.003

**Table 3: Study the attitudes rate of people toward organ donation.**

Attitudes Questions	Agree		Disagree		p-value
	n	%	n	%	
Financial need is an important motive for organ donation	68	34	132	66	0.001
I donate all my body parts	123	61.5	77	38.5	0.002
The donation is effective in reducing the sadness of the deceased's loss	97	48.5	103	51.5	0.00
Organ donation contradicts the natural course of life and death	60	30	140	70	0.00
The donor's morale affects the recipient of the member	92	46	108	54	0.001
Due to interest in organs, donation is refused.	48	24	152	76	0.001
I want to stay intact after my death.	42	21	158	79	0.001
I encourage other members to donate	88	44	112	56	0.00
Talk to my friends about donating a member.	98	49	102	51	0.001
My family encourages me to donate	59	29.5	141	70.5	0.002
If I need to get a member, I can get a member	119	59.5	81	40.5	0.008
The interest of the recipient member in the donation is an important motive	80	40	120	60	0.001
Donation is a godly work	87	43.5	113	56.5	0.005

## DISCUSSION

Results of this study indicated that 43.5% of people pointed organ donation as a almighty work. In the study of Amani et al 68.8% of the people considered their most important motive as altruism and 90% of donated members as godly and moral. Hagihara et al pointed the agreement of people with organ donations, Martinez and Lopez pointed to religious, cultural and altruistic beliefs, Korszand Charf and et al to kindness, Bethes et al pointed to social and psychosocial factors as a reason for organ donation in their studies (Hagihara et al., 1997; Febrero et al., 2014; Kurz et al., 2007; Sadat et al., 2013; Amani et al., 2015). In this study, 41.4% of the participants reported their source of information broadcasting and in the study of Zohoor et al, 73.8% of the information source of television was higher than the current study (Zohoor et al., 2002). Research has shown that increasing the level of knowledge of people about organ transplantation leads to a change in their attitude and an increase in the rate of organ donors. In the United Kingdom during a major educational program in 1985 the percentage of organ donors increased by 16% from 1986 to 1988 and the results of a study on medical students showed that 78% of the first year medical students agreed with their organ donation in case of brain death while this figure was up to 98% in the last year's medical students (Lewis et al., 1986; Shrivastava et al., 1998). In the present study, more than half of the people had knowledge about organ donation and the average level of knowledge was 61.6% which was significant. The results showed that education in people who were opposed to organ donation caused changes in their attitude, knowledge and religious beliefs and in most of them the decision has changed for organ donation. In the present study, 61.5% of the participants were willing to donate all of their organs (Callender et al., 2001). In this study, half of the people believed in the transplantation of members of different races (Zohoor et al., 2002). Deciding on organ donation in the case of brain death by an alternative person and in western countries the alternate decision a person who was most familiar with his personal desires, values and beliefs and it can be a

partner and relatives of a patient or a friend or even a doctor and nurse. In this study, 51% individuals deemed essential parenting consent for donation organ and 29.5% of families considered donations from organs (Kleinman et al., 1997). In this study, 46.8% were willing to receive organ donated card (Yousefinejad et al., 2006). Confirm of diagnosis of brain death in medical science by indicators such as the elimination of all brain stem reflexes, lack of motor responses during stimulation the absence of reversible conditions such as hypothermia and muscle relaxation and coma is irreversible and detection requires a review period (Lazar et al., 2001; Wijdicks, 2001; Newberg et al., 2002). In this study, 73% believed that brain death was different from coma and 61.1% stated that there is no chance of returning to life in brain death individuals. Religious scholars do not consider donation of organs in the brain as contrary to religion but many people are not acquaintance with religious beliefs in this topic. A study in the UK showed that less culture and religion play a deterrent role in organ donation and in fact the religious order is important for many Asian people especially Muslims. In the present study, 69.5% of the respondents did not consider organ donation as contradictory to religion (Amani et al., 2015; Sadat et al., 2013). Studies have shown that there is a significant relationship between education level and receiving organ donation card and also in this study there was a significant relationship between education level and getting an organ donation card (Ghadipasha et al., 2008; Vahidi et al., 2003; Merez, 2000). The results of this study showed that most of people with an average income disagree with financially motivated of organ donate. In a study on the donation of Tehran citizens, 64% opposed the sale of their own members in brain death which was similar to our study results (Zohoor et al., 2002).

## CONCLUSION

The results of this study showed that various factors such as knowledge and attitude, culture and religious beliefs are involved in the process of organ donation. The subject of organ donation in patients at brain death is one

of the most important and challenging moral subject and in societies with different cultures and religions are based on the values and rules applicable. The altruistic and religious beliefs of the people of the community provide a strong backing for the lives of patients and appropriate strategies and planning taking into account the cultural, religious and social characteristics of people in society.

**Conflict of interest:** None-declared.

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