THE KNOWLEDGE, ATTITUDE, AND BEHAVIORS REGARDING ORGAN DONATION AMONG INDIVIDUALS AGED OVER 60

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ABSTRACT

Introduction: Organ transplantation is the most important treatment method to increase the survival and life quality of people suffering from organ failure. The elderly people constitute an important group who may donate their organs particularly in developed countries, due to their increased proportion in population. In this study, we aimed to determine the knowledge, attitude, and behaviors of individuals aged over 60 about organ donation.

Materials and methods: This study was conducted in Kahramanmaras, a province in the southern Turkey. A total of 124 individuals aged over 60, applying to polyclinics of Kahramanmaras Sutcu Imam University Faculty of Medicine between 01.10.2014-31.12.2014, were enrolled in the study. A survey on sociodemographic characteristics, and the knowledge, attitude and behaviors about organ donation was performed to all participants.

Results: Ninety three (75%) of the participants were male, while 31 (25%) were female. The mean age was 69.42±6.11 (min=60, max=87). Thirty patients (24.2%) stated that they were sufficiently knowledgeable about organ donation and transplantation. Fourteen patients (11.3%) noted they knew where to apply for organ donation while 110 patients (88.7%) noted they did not. Only 1 (0.8%) patient had applied for organ donation and had an organ donor card while 123 patients (99.2%) did not. Thirty seven (29.8%) participants remarked that they desired to donate their organs.

Conclusions: We revealed that individuals over age of 60 lacked information regarding organ donation. Furthermore, it was observed that the willing to donate organs or to apply for this purpose was low among participants.

Key words: Organ donation, knowledge, elderly.
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Introduction

Organ transplantation is the most important treatment method to increase the survival and life quality of people suffering from organ failure. Although there have been many medical and technical developments in organ transplantation in the last 20 years, the number of patients requiring organs increases day by day[1].

In developed countries, 20% of transplantations are performed with organs taken from living donors, and 80% are performed with organs taken from cadavers[2]. However, the situation is exactly opposite in our country, and 88.9% of organs are obtained from living bodies and 11.1% are obtained from cadavers[3]. In records of Turkish Health of Ministry, it was stated that 25.382 patients waited for organ transplantation and 4.264 of them underwent organ transplantation in 2014. Also, it was reported that 22.4% of families of people whose brain death occurred in intensive care units permitted for organ donation in 2014[4].

The most important step for organ transplantation is providing the organ. The fact that some organs may only be obtained from cadavers indicates the importance of cadaveric transplantation. The opinion of individuals regarding organ donation and transplantation is affected by many factors
such as age, education, socioeconomic status, and cultural and religious factors\(^{4-6}\). The elderly people constitute an important group who may donate their organs particularly in developed countries, due to their increased proportion in population.

The proportion of people aged 60 years or over in population increases worldwide. It is estimated that the number of people aged 60 or over will reach to 1.2 billion in 2025, and 1.9 billion in 2050\(^7\). In Turkey, the proportion of people aged over 65 in general population is known to be 7.7% in 2013, and estimated to reach to 20.8% by the year 2050\(^8\).

In this study, we aimed to determine the knowledge, attitude, and behaviors of individuals aged over 60 about organ donation.

**Materials and methods**

This study was conducted in Kahramanmaras, a province with an approximate population of 1 million in the southern Turkey. Two hundred patients aged over 60, applying to policlinics of Kahramanmaras Sutcu Imam University Faculty of Medicine for any reason between 01.10.2014-31.12.2014, were invited to participate in the study. Patients were informed about the study and 124 (62.0%) patients approving to participate in the study were included. A survey on sociodemographic characteristics, and the knowledge, attitude and manner about organ donation, which was prepared from the literature information, was performed to all participants by face-to-face technique. Sociodemographic characteristics were questioned in first part of the survey. The second part included questions about the attitude and manner about organ donation. The last part constituted of questions about the knowledge level of patients regarding organ donation. Individuals that were not capable to fill in the survey (history of cerebrovascular disease, not sufficient cognitive condition, sight disorders, emergency cases) were not included.

**Statistical analysis**

The analysis of the data was performed using Statistical Package for the Social Sciences (SPSS) 20.0 statistical (IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.) program. Mean, frequency and standard deviation were calculated. \(p<0.05\) was considered statistically significant.

The ethics committee approval of the study was obtained from Kahramanmaras Sütçü Imam University Faculty of Medicine Ethics Committee in accordance with Helsinki Declaration (Seoul, 2008).

**Results**

Ninety three (75%) of the participants were male, while 31 (25%) were female. The mean age was 69.42±6.11 (min=60, max=87). One hundred and nine (87.9%) patients were married and 15 (12.1%) were single. One hundred and four (83.9%) patients had educational levels of primary school or below, and 20 (16.1%) were secondary school graduates or more educated. All of participants noted they were Muslims. Eighty five (68.2%) patients told they had chronic diseases that were diagnosed before. Furthermore, 19 (15.3%) patients remarked that they used maraş powder, 15 (12.1%) stated they smoked, and one (0.8%) patient stated he used alcohol (table 1).

**Table 1:** Sociodemographic characteristics of participants.

Thirty patients (24.2%) stated that they were sufficiently knowledgeable about organ donation and transplantation. All of patients told they had not been given a specific training about this issue. One hundred and five patients (84.7%) stated they got knowledge from television programs, 25 patients (20.2%) told they were informed by entourage, 6 patients (4.8%) told they were informed by family members, 5 patients told they got information from healthcare providers, and 2 patients (1.6%) suggested getting information from newspapers.

Fourteen patients (11.3%) noted they knew where to apply for organ donation while 110
patients (88.7%) noted they did not. One hundred and seventeen patients (94.4%) remarked that organ donation is important to keep someone alive. Answers of questions regarding organ donation were given in table 2.

Table 2: Answers of participants to knowledge questions about organ donation.

One hundred and three patients (83.1%) told that kidney was among organs that can be transplanted, 88 participants (71.0%) stated liver could be transplanted, and 72 patients (58.1%) remarked that heart was among organs that can be transplanted. Answers regarding organs that can be transplanted were given in table 3.

Table 3: Answers of participants to the question ‘which organ/tissue can be transplanted?’

Only one (0.8%) patient had applied for organ donation and had an organ donor card while 123 patients (99.2%) did not. Thirty seven (29.8%) participants remarked that they desired to donate their organs, 29 patients (33.4%) told they did not have an opinion about this issue, and 58 patients (46.8%) stated they did not desire to donate their organs. Sixty one (49.2%) patients told they considered that organ donation was improper in Islam, 8 patients (6.5%) told it was proper, and 55 patients (44.4%) proposed no idea. The attitude and manner of patients regarding organ donation were presented in table 4.

Table 4: The attitude and behaviors of participants regarding organ donation.

Sixty one (49.2%) patients indicated that positive fatwa of the reverend would be effective to increase organ donation, 53 patients (42.7%) told that activities of health professionals would be helpful, and 22 patients (17.7%) stated media support would be beneficial.

Discussion

While the demand for organ transplantation increases day by day, the appeal for organ donation is insufficient[1]. It is clear that the population aged 60 or over may provide great contribution to meet the deficit.
All of participants stated they did not get a specific training about organ donation while 24.2% told they had adequate information about the issue. It was detected that participants got information most commonly from television programs, and then entourage.

In a study from Turkey; 26.7% of the reverend were found to have sufficient information about organ donation. According to population-based studies, it was shown that the society got information from media organs, foremost television in Niger, Greece, and Turkey. In a similar way with our study, it was seen that the information level of the society regarding organ donation is inadequate according to literature. It is clear that the media has a great role in presenting information about organ donation. Considering the role of the media for organ donation, the effort of Ministry of Health to provide information via media is of great significance for the future of organ donation and transplantation.

In several studies from Turkey, it was determined that 40-64.3% of individuals did not know where to apply for organ donation. In our study, we detected that 88.7% of participants did not know where to apply for this purpose. This result indicates that introductory activities and campaigns regarding organ donation are insufficient.

In our study, 94.4% of participants stated that donating organs were important to make someone alive. In several studies, it was depicted that 95.2-87.3% of individuals considered organ donation to be a life-saving action. It is amazing that the wish for organ donation is low despite the common consideration that organ donation is life-saving.

In the literature, studies on different societies and occupation groups reveal that the most commonly recognized organ to be transplanted is the kidney, followed by liver and the heart. In our study, 83.1% of participants stated that the kidney may be transplanted, while 71.0% stated that the liver may be transplanted and 58.1% stated that the heart and cornea may be transplanted. It is clear that the most commonly recognized organ among organs that may be transplanted is the kidney. We consider that it stems from the fact that renal transplantation is the most common transplant operation and that renal transplantation may be performed in several centers.

We found that 0.8% of participants had applied for organ donation and had organ donor cards, and 29.8% desired to donate their organs. According to the literature, the rate of having organ donation card is 3.7% in public, 5.3% among university students, 5.2% among healthcare providers, and 23.1% among physicians. In population-based studies, the rate of desire for organ donation was found to be 62.3% in Pakistan, 79.1% in Niger, 96% in America, and 60.1% in the Europe. In our study, it was observed that the desire for organ donation was lower in our country. We consider that sociodemographic characteristics, cultural and religious features, development level of the country, and health policies are efficient in this result.

In our study, 49.2% of participants stated that organ donation is proper in Islam. In a study by Keten et al., 78.6% of imams were found to consider that organ donation is proper in Islam. According to results of our study, it is clear that knowledge level of participants in terms of convenience of organ donation in Islam is lower than that of the reverend. In Turkey, High Council of Religious Affairs Administration declared that organ and tissue transplantation is proper in Islam. This situation indicates that individuals aged 60 years or above lack information about organ donation, and indicates that policies regarding elucidating are insufficient.

In their population-based study, Güngörüm et al. depicted that 48.6% of participants desired to donate their organs, while 33.0% did not wish to donate their organs because of religious apprehensions. In another population-based study, 43.6% of participants remarked they wanted to donate their organs to save one’s life. Furthermore, it was revealed that the reason for not donating organs was religious apprehensions in 22.4% of participants. In our study, 30.6% of participants indicated that they did not desire to donate their organs due to their chronic diseases, while 9.7% asserted their religious apprehensions. Twenty-nine percent of participants stated they wanted to donate their organs to save someone’s life. Our results are similar with the literature. An important section of our participants stated that they did not want to donate their organs due to having chronic diseases. Although some patients with chronic diseases are known to harbour some risks for organ and tissue donation and transplantation, generally they are considered to be convenient for alive or cadaver donors. Moreover, another situation to cause drawback from organ donation is religious apprehensions. Organ donation is assumed to be a good
virtue in Islam. The elucidating of individuals of this age group in terms of religious aspect would be collimator for organ donation and transplantation.

In our study, 49.2% of participants indicated that positive fatwa of the reverend would be effective to increase organ donation, 42.7% told that activities of health professionals would be helpful, and 17.7% stated that media support would be beneficial. In similar studies, it was indicated that activities of the reverend, healthcare providers and the media would be effective for increasing organ donation. This was an amazing finding that the reasons for this unwillingness were chronic diseases and pants. It was an amazing finding that the reasons for this unwillingness were chronic diseases and religious apprehensions. The coordinated work of the media, health professionals and religious officials would provide substantial benefit to increase organ donation.

Conclusion

We revealed that individuals over age of 60 lacked information regarding organ donation. This situation may stem from the fact that they were not provided with sufficient information. Furthermore, it was observed that the willing to donate organs or to apply for this purpose was low among participants. It was an amazing finding that the reasons for this unwillingness were chronic diseases and religious apprehensions. The coordinated work of the media, health professionals and religious officials would provide substantial benefit to increase organ donation.

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