

Attitude towards Organ Donation in North Cyprus

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ABSTRACT

Organ transplant has been the subject of much attention; unfortunately, relatively little has been published regarding the issue. Organ transplantation is a successful treatment method against irreversible vital organ failures. According to the U.S government on information regarding organ donation and transplant, more than 119,000 people are on the national waiting list and the number keeps growing. This study aims to determine the level of knowledge and attitude towards organ donation and transplant. A cross-sectional study with self-administered questionnaires were distributed in North Cyprus which comprise of 5 districts; Nicosia, Gazimagusa, Girne, Guzelyurt and Iskele. 384 participants were reached using proportional stratified random sampling. Among 337 respondents, 83.1% stated they were in favor of organ donation and the rate of respondents who were willing to donate was 78.9%. Willingness to donate showed a significant relationship with younger age ($p=0.034$) and male gender ($p=0.025$) but not with other variables. Of the respondents, 74.5% stated that they will agree to organ donation after their death, while only 48.7% stated they could be donors whilst alive. 89% of participants were in favor of the public becoming better informed about organ donation and transplant. Educating and motivating the public and increasing awareness of organ donation is important to increase the community's knowledge.

Keywords: Organ donation, organ transplant, attitudes, knowledge, North Cyprus

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INTRODUCTION

One of the most important health problems in the world is organ failure. Organ donation is when a person allows an organ of theirs to be removed, legally, either by consent while the donor is alive or after death with the assent of the next of kin. Organ transplant is a successful method against irreversible vital organ failure and also a second life chance for the patients with organ failure [1].

Organ donation is a highly worthy and responsible thing to do that potentially save lives. At the same time, though, it is a serious decision that can have big implications [1].

One organ donor can save up to eight lives. The same donor can also save or improve the lives of up to 50 people by donating tissues and eyes. More than 123,000 people in the U.S. are waiting for an organ. One person is added to the national waiting list every 12 minutes. Each of these people are in desperate need of a kidney, liver, heart, or other organs. More than 6,500 people a year, about 21 a day, die before that organ ever becomes available [2]. Organ donors are always in short supply because there are far more people in need of a transplant than there are people willing to donate an organ [3].

Most of the organs available come from deceased donors with a smaller number coming from healthy people. More than 6,000 transplants are performed each year from living donors [3].

The decision to donate is an essential process prior to transplant. It is conditioned by personal or familial opinions that are strongly influenced by various factors within the psychosocial environment. Demographic, socioeconomic, and cultural characteristics have been related to the varying willingness for organ donation among populations [4].

Since the law legalizing organ donation was passed 24th October 2014 in North Cyprus, there is not much information regarding the topic. This is the first official research in North Cyprus regarding organ donation. Therefore, in order to increase the frequency of organ donation, awareness and knowledge should be spread in this context among the community, negative attitudes of the society should be eliminated, and obstacles against organ donation should be overcome leading to the community having sufficient knowledge and perception.

The aim of this study is to determine the knowledge level and attitudes about organ donation and transplant among the residents of North Cyprus. Through this population-based study, we assessed the prevalence of willingness to donate organs. We also evaluated demographic, socioeconomic, and religious

factors associated with an individual's willingness to donate organs.

MATERIALS AND METHODS

Participants

According to the KKTC census carried out in 2011, North Cyprus has a population size of 286,257 in its five districts. Originally, the calculated sample size was supposed to be 400 with the plan of dividing the sample size in accordance with the total number of populations in each district. Unfortunately, Guzelyurt district could not be covered, thus the sample size was reduced to 358. 133, 98, 97, 42 and 32 participants from Nicosia, Gazimagusa, Girne, Guzelyurt and Iskele were reached respectively.

Each district has sub-districts and according to the population size in each sub-district, the numbers of participants were chosen randomly. Hence, with Nicosia having two sub-districts; 116 participants were chosen from Merkez and 17 from Digerlimek. In Gazimagusa, with three sub-districts; 71 participants were chosen from Gazimagusa, 18 from Akdogan, and 9 from Gectakle. Girne, having two sub-districts; 91 were chosen from Merkez, and 6 from Camlibel. And lastly for Iskele, with three sub-districts; 11 were chosen from Merkez, 9 from Mehmecek, and 12 from Yeni ErenKoy.

Subsequently, each sub-district was further divided into different towns; the numbers of participants were chosen according to each town's population size. Lastly, for the streets in each town, one or two streets were chosen with a relatively larger population size and the other two with relatively smaller population number. With the assessment of the number of houses in each street, the number of people from which data would be collected was decided. The houses were chosen randomly. If there were no responses from any of the chosen houses, then the next immediate house in the same street was chosen.

This population-based cross-sectional study included individuals 18 years of age and older living in North Cyprus. The target population was chosen through proportional stratified random sampling. Data collection was carried out using printed validated Turkish questionnaires used in a previously published article [5]. Permission to use the questionnaire was received from the author.

Procedure and Evaluation

Questionnaire distribution and data collection took place in the months of February and March 2017 during the weekends. The participants were

informed about the study prior to the completion or participation in the questionnaires or interviews respectively, where if they accepted, written consent of the responder was taken. Participants were informed about anonymity and confidentiality of their data as well as the right to not answer the questionnaire. In addition to this, the questionnaires were assessed to ensure no misleading or vague question/s were included.

Statistical Analysis

The data collection tools include information, attitudes and beliefs of the people regarding organ donation and transplant. SPSS 21.0 software package was used to perform analysis of the data. Statistical significance was obtained by using chi-square tests. Comparisons between groups were analyzed: Mann-Whitney U-test, Kruskal-Wallis H-test and Pearson chi-square test was used for categorical variables. P values of less than 0.05 were used to assess significant results.

RESULTS

From 4 different regions in the study, the total number of participants was 337. Vast majority of the participants were younger than 45 years old. There were 217 (64%) males and 120 (36%) females. More than half of participants were married 188 (55.8%) with 149 (44.2%) being single. 34% of the participants were university graduates, 33.8% were High school graduates, 7.7% went to Graduate school and 2.2% were Illiterates. Out of 337 participants, 9.5% were from Iskele, 28.7% from Girne, 27.8% from GaziMagusa, and 33.8% from Lefkosa.

Among 337 respondents, 280 (83.1%) stated they were in favor of organ donation, 30 (8.9%) were not and 27 (8%) were uncertain. The rate of respondents who were willing to donate was 78.9%, 8.6% stated they definitely don't want to become donors and 12.5% were uncertain. Willingness to donate showed a significant relationship with age ($p=0.034$) and gender ($p=0.025$) but not with other variables.

Of the respondents, 251 (74.5%) stated that they will agree to donation their organs after their deaths, while only 164 (48.7%) said they could be donors while alive.

265 (78.6%) of the respondents stated they don't have a problem accepting and/or donating from/to people from different racial groups. The majority of the respondents (80%) said they would donate an organ to a person they have blood ties with, and this percentage decreases to (76%) when it comes to a person they have no blood ties with. Majority of

participants (80.1) had no problem with accepting/donating organ from/to people from different religious groups. When asked about organ donation in terms of religious objections, (75.6%) participants who had no religious objections against organ donation agreed on organ donation ($p=0.001$). 87.5% of the participants agreed that organ donation is a gift of life to another person.

Overall, (89%) of participants were in favor of the public becoming better informed about organ donation and transplant. The percentage of people thinking that famous or rich people can receive organs before normal people with more need were (62.9%). About half of participants (44.5%) agreed with the opinion that patients' chance of surviving a transplant operation was more than 10 years. Only (18.7%) stated that after an organ transplant an individual's health was not sufficient to return to work or school.

DISCUSSION

Our aim in this study is to detect the different thoughts and beliefs regarding organ donation among general population in North Cyprus.

In our study, 78.9% participants were willing to donate and this percentage was higher when compared to other similar researches. According to a study done in Ankara, Turkey (2008) the percentage of people who were willing to donate was only 47% [5]. Another study conducted in Bursa, Turkey (1990) on public attitudes toward organ donation in a Turkish adult community, 57% were found willing to donate [6]. As mentioned earlier, willingness to donate in this study was found to be higher when compared to other similar research, and this is believed to be due to some factors which are, first; the population size was larger and second; the population size entailed younger and more educated male participants. These two factors might have played a significant contribution to the results. Another reason to this high percentage might be that the people who were more willing to donate their organs were the ones who participated in this study.

According to our research, willingness to donate an organ showed a significant relationship between younger age and being male. A study conducted in Ankara, Turkey (2008), showed that willingness to donate showed a significant relationship with younger age ($p=0.005$) but not gender, educational status or other variables [5].

Our research also showed that people were willing to donate regardless of their religious beliefs. However, an international review of literature states that individuals who are younger, female, having higher education levels and having fewer religious beliefs are

more likely to have positive attitudes toward donation and thus are more willing to donate their organs [7]. A comparison was made to see if there is any significant relationship between religious beliefs and willingness to donate but it was found to be insignificant.

However, it showed that the more people hold a religious belief, the more they were willing to donate. Though this may have resulted from having a higher number of participants who hold religious beliefs.

Table 1. Attitudes and Beliefs of participants towards organ donation

Attitudes and beliefs of participants N=337	Do not agree %	Not sure %	Agree %
<i>I believe in afterlife</i>	21.7	11.0	67.4
<i>I have religious objections to organ donation</i>	67.1	14.2	18.7
<i>I agree on organ donation in case of my death</i>	12.2	13.4	74.5
<i>I have to discuss to be/not to be an organ donor with my family</i>	35.6	20.5	43.9
<i>Organ donation is a safe, effective practice</i>	11.0	17.8	71.2
<i>I do not want my body to be spoiled</i>	63.5	18.4	18.1
<i>I do not want my family to think about donating while they mourning after my death</i>	44.8	22.3	32.9
<i>I can request an organ from my friends and family</i>	57.6	23.7	62.6
<i>Organ donation is a gift of life to another</i>	6.2	6.2	87.5
<i>Organ donation is also appropriate for religion</i>	10.4	32.0	57.6
<i>If I donate my organ after death, it could be that a part of me will live on</i>	18.4	11.3	70.3
<i>I will do a favor for somebody if I donate my organ after death</i>	7.4	8.3	84.3
<i>My family's grief will be somehow lessened if I donate my organ after death</i>	18.1	31.2	50.7
<i>I want to make an organ donation with my free will</i>	8.6	12.5	78.9
<i>I'm ready to donate my organs if somebody needs them</i>	10.7	22.6	66.8
<i>If a family member dies, I will donate her/his organs if somebody needs transplantation</i>	11.6	19.6	68.8
<i>I can donate my organs for a person with whom I have a blood tie</i>	9.2	11.3	79.5
<i>I can donate my organs for a person whom I do not have a blood tie</i>	9.2	14.8	76.0
<i>I can be a donor while I'm alive</i>	19.0	32.3	48.7
<i>I can accept an organ donation from a person of different religion</i>	11.0	8.9	80.1
<i>I can donate my organs to a person of a different race and get an organ from people with a different race than myself</i>	8.3	13.1	78.6
<i>If I donate my organ when alive, my lifetime will get shortened</i>	46.3	36.2	17.5
<i>Organ donation saves lives</i>	4.2	7.1	88.7
<i>A donor feels no pain when organs are removed</i>	19.9	46.0	34.1
<i>Organ transplantation is an acceptable form of medical treatment</i>	8.0	15.7	76.3
<i>I would agree to an organ transplantation, if my live were not in danger</i>	43.3	28.5	28.2
<i>I can accept organ donation from other races when it is a necessity</i>	9.5	11.0	79.5
<i>Organ transplantation is not an appropriate issue according to my beliefs</i>	68.8	14.8	16.3
<i>Organ donation can give harm to the body</i>	46.9	32.0	21.1
<i>I generally support organ transplantation</i>	8.9	8.0	83.1
<i>Organ transplantation is consistent with my values and beliefs</i>	14.8	18.4	66.8
<i>Transplantation is a too expensive form of treatment</i>	17.8	37.4	44.8
<i>I can accept organ donation from a person of another religion when my life is in danger</i>	11.3	12.2	76.6
<i>People would not need transplants if they took better care of their health</i>	24.6	24.9	50.4
<i>Transplant recipients can live more than 10 years after a transplantation operation</i>	9.2	46.3	44.5
<i>Some cancers can be cured with transplants</i>	9.2	36.2	54.6
<i>After organ transplantation individual's health is not sufficient enough to return back to their work, school</i>	33.8	47.5	18.7
<i>Some legislation should be done</i>	10.4	18.7	70.9
<i>People can sell their organs for money</i>	51.0	11.9	37.1
<i>People should be more conscientious about organ transplantation and organ donation</i>	3.9	7.1	89.0
<i>Organ trade is possible in Turkey and in the world</i>	11.0	17.5	71.5
<i>Rich or famous people can receive organs before the people with the most need</i>	25.5	11.6	62.9

The limitation of this study was the inability to cover one district, Guzelyurt due to insufficient time.

CONCLUSION

This study concludes that percentage of people who are willing to donate is high among people in North Cyprus, though it had only been two years since the law on organ donation was passed, we believe that more awareness should be increased among the residents of North Cyprus. This is in order to get most of the benefits and to save as much lives as possible. Also, not to forget that “becoming a donor means recycling yourself”.

ETHICS

Ethics Committee Approval: KKTC Ministry of Interior. Informed Consent: participants were informed about the study and their written informed consents were collected prior to protocols.

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