

ORIGINAL ARTICLE

Knowledge and Attitude toward Organ Donation among Saudi Population in Hail Region, KSA

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ABSTRACT

Organ transplantation is the most preferred treatment modality for patients with end-stage organ disease. Their attitudes and beliefs can influence the public opinion. This study aims at understanding the awareness and attitudes of Hail region population. A total of 500 adult participated in this study. A specially de-signed online questionnaire was used in assessment. Data were statistically analyzed using SPSS. A total of 500 respondents were surveyed, from which 75.2% were females and 24.8% males. More than half of them (53%) in the age-group 20-30 years and about 78.0% have university education. The vast majority of the respondents 97.2% aware about organ donation and 72.2% about the presence of organ donation centers. Regarding the groups that can donate, 78.4% said alive and deceased, 64.6% did not believe that organ donation is against their religion but 31.8% did not know. In respect to attitudes, 69.2% of respondents were willing to donate their organs or some of their organs, 16.1% of those were willing to donate while they're alive, 38.6% want to donate after death and 45.3% of respondents would donate in both situations. The majority of respondents were highly knowledgeable about organ donation with positive attitudes towards organ donation.

Keywords: organ donation, organ transplantation, brain death

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Introduction

Organ donation (OD) means the donation of biological tissue or an organ of the human body, from a living or a dead person to a living recipient in need of transplantation. Organ transplantation is the preferred mode of replacement therapy and can be the last recourse of lifesaving or for life-improving treatments. It has been documented that the organs from a single donor can save or help up to as many as 50 people [1]. There are three types of organ donors; the living donor, donors after circulatory death (DCDs) [also known as no heart-beating donors (NHBDs)] and donors after brain-death [2]. Organ transplantation has received considerable recognition in recent years as the treatment of choice for patients with end-stage organ disease. The major problem facing transplantation programs world-wide is a shortage of suitable donor organs. The same is noticeable in Saudi Arabia according to figures published by the Saudi Center for Organ Transplantation (SCOT) [3]. In 1982, the first resolution of the Islamic Council in Saudi Arabia about OD and transplantation was issued, which permitted the usage of tissue and organ transplantation from both living and cadaveric donors. This resolution marked a new era in organ transplantation in Saudi Arabia, leading to the establishment of the National Kidney Foundation in 1984, which was renamed Saudi Center of Organ Transplantation (SCOT) in 1993 [1]. According to SCOT 2017 annual report, the various organs that had been transplanted by SCOT inside the kingdom of Saudi Arabia in 2017 included 921 kidneys, 226 livers, 37 hearts, 21 heart valves, 1368 cornea, 72 lungs, 18 pancreas and 2 Intestines. In addition, there have been many tissue donations of bones, bone marrow, bone tissue and skin [1]. There had been a continuous advancement in medical facilities throughout the kingdom which has made the transplantation facilities available in several centers, but the gap between donation and transplantation remains high. According to SCOT 2017 annual report, out of the 637 possible deceased cases in the year 2017, only 124 were consented for organ donation. Organ Recovery was carried out in 89% of the consented cases in which 109 cases were utilized. There is a great need for increasing awareness about organ transplantation and organ donation among the general public. One factor that

might contribute to this limited availability of donor organs is the lack of knowledge about the legal and procedural details of organ donation. The aim of this study is to assess the knowledge and understand the attitudes toward organ donation among Saudi population in Hail region that might help in reducing the gap between organ donation and organ transplantation.

MATERIAL AND METHODS

Study design and sample

A cross-sectional community-based study was carried out from September 2019 to March 2020 to assess the Knowledge and Attitude toward Organ Donation among Saudi Population in Hail Region. The study involved distribution of (500) self-administered online questionnaires to Saudi adult participants from Hail Region.

Data collection

A self-administered questionnaire was designed with both multiple choice and fill-in-the-blank format questions. It consisted of 18 questions which were guided by the study objectives. The questionnaire included 2 sections: the first section comprises demographic information about the participants: age, gender and level of education. The second section includes assessment of knowledge and attitude of community about organ donation and donation centres and possible organs that can be donated, the susceptibility of individuals and their relatives for organ donation, the aim/fears behind their decision, motivations that lead individuals to donate, organs they approve to donate, affection of donation on participant's life and organ donation relation with brain death. These questionnaires were sent out to relatives, friends, university students, and employees. A verbal consent was obtained from each of the participants before answering the questionnaire.

Data analysis

Data entered and analyzed using the Statistical Package for Social Sciences (SPSS). Results of the percentage of respondents willing to donate, percentage of respondents that have donated an organ before, percentage of guardians willing to allow their relatives to donate their organs, association of organ donation approval with level of education, association of approval of donation with time of donation, association of approval of donation with relative relation, and comparison of the percentage of people willing to donate their kidney and the percentage of people willing to donate a part of their liver were tabulated.

RESULTS

A total of 500 respondents were surveyed, from which 75.2% were females and 24.8% males. Regarding age, 28 respondents (5.6%) were less than 20 years, 265 (53%) in the age-group 20-30 years, 115 (23%) in the age-group 31-40 years and 92 (18.4%) in the age-group 41 years or above. The level of education of respondents as follows 0.4% primary school education, 1.4% intermediate school education, 16.4% secondary school education, 78.0% university education and 3.8% postgraduates. The vast majority of the respondents 97.2% had heard about organ donation and 2.8% didn't. When they were asked about the presence of organ donation centers about 72.2 know they were existed and 27.8 didn't know about the centers. Regarding the groups that can donate, 78.4% said alive and deceased, 9.4% said alive only, 4.8% said deceased only and the rest (4.8) answered they don't know. In respect to permissibility of organ donation in Islamic religion, 64.6% said it's permissible, 4% said it's impermissible and the rest (31.4%) did not know. When asked about the aim or purpose of organ donation, the majority answered that it's to save life and benevolence, and 1.8% answered that it's for financial gain. (Figure1). About 30.8% of respondents opposed the idea of donating their organs, and the reasons behind that were as follows: it will affect their lifestyle, it might carry harms and risks due to the surgery, they were not sure about the Islamic provisions or their guardians would not approve the donation. On the other hand, 69.2% of respondents were willing to donate their organs or some of their organs, 16.1% of those were willing to donate while they're alive, 38.6% want to donate after death and 45.3% of respondents would donate in both situations. (Figure2) Those who answered yes were also asked if they will donate all or some of their body organs, 30.4% stated yes for all organs and 69.6% stated yes for some organs. Regarding the persons they would donate for, 41.4% answered for first degree relative, 4.8% answered for any relative regardless of the degree and 46.6% answered that they would donate to anyone in need for organ donations shown in (Figure3). The next question was targeted toward guardians, if they would allow their wards or family members to donate their organs, 63.8% answered yes and 36.2% refused. Regarding brain death, we asked the respondents if they would approve donating their brain-dead relative organ's, 54.8% said yes and 45.2% said no. when asked why, people who refused the donation said that it might violate the deceased sanctity, some said that they don't trust in the medical team or

donation laws, others said there's no point in donating organs of the deceased person, but the majority stated that they can't take a decision on behalf of someone else.

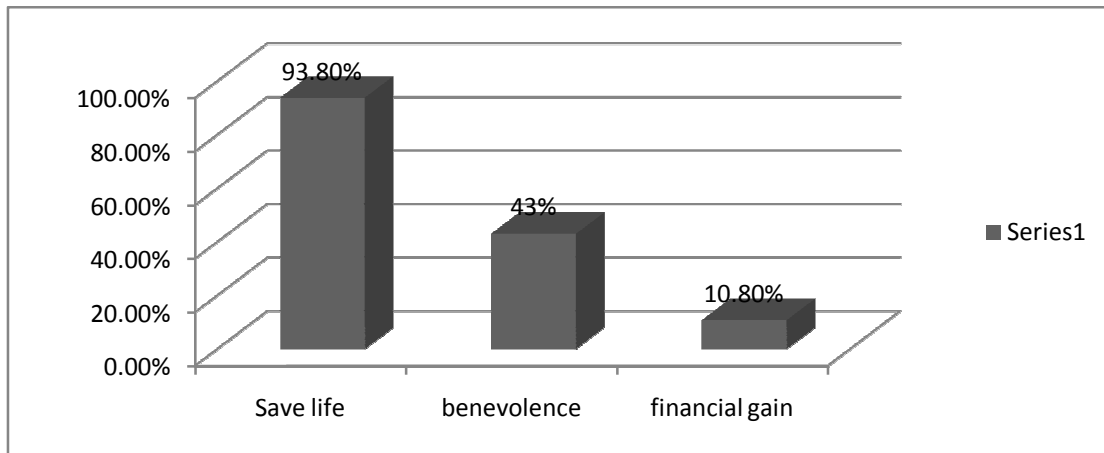


figure1: Shows reasons of organ donation among respondents

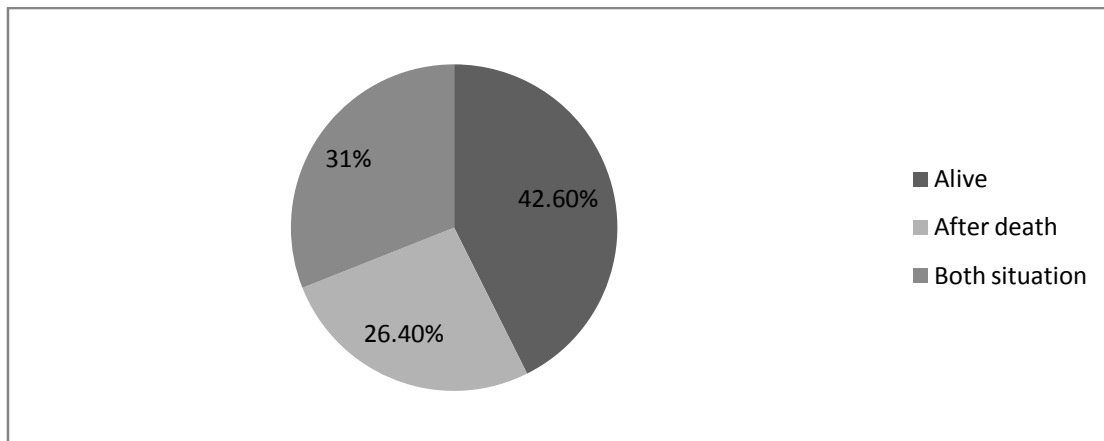


Figure2: Shows time of organ donation among respondents

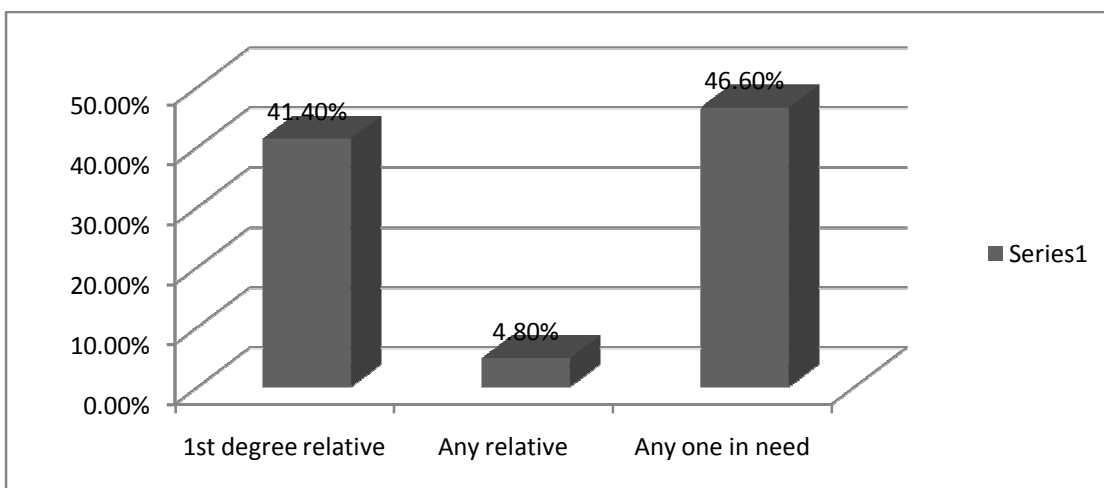


Figure3: Shows relatives and persons they willing to donate for among respondents

DISCUSSION

This study showed that the majority of the respondents had heard about organ donation, but about 31.4% of respondents did not know about the permissibility of organ donation in Islamic religion, and 4% think that it's impermissible. A similar result was found in a research conducted in Riyadh, they found that "31% of responders were not certain whether Islam supports organ donation, and 2% thought donation to be against Islamic teaching. 20% thought that organ donation disfigures the body" [7]. About 30.8% of respondents opposed the idea of donating their organs, 22.2% of them refused for Islamic provision. Similar results were found in a study conducted in Saudi Arabia, they found that "When asked about possible reasons for organ donation refusal, (27.5%) cited religious reasons and (23.1%) did not want to have their bodies dissected after death." [8]. On the other hand, we found that 69.2% were willing to donate their organs or some of their organs. In comparison to a study conducted in India, slightly higher percentage was found among participants, "Another encouraging finding is that 72% of the participants were willing to donate their organs and were ready to sign the donor card." [9]. This comes in contrast to another study conducted in Al-Kharj, where they found that "<25% were willing for organ donation among those supporting the promotion of organ donation." (10) Regarding the persons they would donate for, 41.4% answered for first degree relative, 4.8% answered for any relative regardless of the degree and 46.6% answered that they would donate to anyone in need for organ donation. This reflects more positive attitude among Hail population when compared with Riyadh population as seen in a research conducted there, "respondents preferred that recipients would be either of the same religion (48.7%), relatives (33.9%), or anyone in need (30.7%)" [8]. In respect to the timing of donation, in our study we found that 16.1% of those were willing to donate while they're alive, 38.6% want to donate after death and 45.3% of respondents would donate in both situations. Which carries a much positive attitude than what was found in study conducted in Riyadh; they found that "The vast majority of respondents in the rural and urban areas were willing to donate after their death only (51.8% and 58.0%, respectively). However, a higher percentage (34.8%) of respondents in the rural areas was willing to donate during life time than respondents in urban areas (26.2%). The percentage of the respondents who were willing to donate at any time (either during life or after death) was similar in the rural and urban areas (13.4% and 15.7% respectively)." [11]. Regarding the groups who can donate, in our survey, 78.4% said alive and deceased, 9.4% said alive only, 4.8% said deceased only and the rest (4.8%) answered they don't know. In comparison to a study conducted in Pakistan, they found that only (23%) knew that organs can come from both living and cadaver bodies [12]. Regarding the aim or purpose of organ donation, the majority answered that it's to save a life, this result was exactly identical to the research in Riyadh by KSU, "(91.1%) respondents knew the benefits behind organ donation, i.e., it could save lives of other people [8]. When the respondents asked if they would agree donating their brain-dead relative organs, 54.8% said yes and 45.2% said no. And the reasons behind that came various, but the majority stated that they can't take a decision on behalf of someone else. This is a much lower percent of people when compared to a result found in a study conducted in Australia, where they found high percentage of people were willing to donate their children organs, "(79.6%) will agree to donate their children organs after death [13]."

CONCLUSION

Our study found that majority of the respondents were aware of organ donation and its importance in saving life of patients with last stage organs. Also they have high knowledge about the organs that can be donated with. They showed highly positive attitudes towards organ donation through willing to donate in both situation during their life or after death for any person in need in addition to their all relatives

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