

Exploring Influencing Factors for the Wrong Decision from Kidney and Liver Failure Patients to Accept Organs Donation from Their Relatives

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Abstract:

This research aims to Recognizing the concept of kidney and liver failure and its diagnosis, the criteria for kidney and liver donation, and the importance of organ donation. Identify the medical, ethical, personal, and emotional dimensions that contribute to patients' refusal to accept organ donation, Explaining the psychological factors of patients and their families affecting the decision to donate, and the role of social workers, psychiatrists, and the health system's roles in the donation process. Where in the realm of organ transplantation, a critical ethical issue emerges when patients diagnosed with kidney or liver failure reject potential donations from their relatives. Therefore, through this study we will explore the underlying reasons behind kidney and liver failure patients' refusal to accept organ donations from their relatives. By delving into the motives and circumstances surrounding this decision, through a cross-sectional study of a sample of respondents, patients who have declined familial organ donations, as well as their family members, healthcare providers, and the general public, Through a cross-sectional study of a sample of 2,348 respondents, patients who have declined familial organ donations, as well as their family members, healthcare providers, and the general public In the Kingdom of Saudi Arabia during the year 2024. Thematic analysis will be employed to identify recurring themes and patterns in participants' narratives, elucidating the motivations, concerns, contextual and factors influencing the decision-making process. Ethical considerations will be rigorously addressed throughout the research, ensuring confidentiality, informed consent, and sensitivity to participants' autonomy. The study will provide useful findings and recommendations to the community, healthcare providers and decision makers.

Keywords: Influencing factors, Wrong Decision, Kidney and Liver Failure Patients, Accept organs Donation, Relatives

1. Introduction:

Kidney and liver failure are among the chronic diseases that are spread in the Kingdom of Saudi Arabia and all countries of the world, and the numbers increase annually, In our beloved Kingdom, and under the patronage of His Royal Highness and His Crown Prince, the Ministry of Health has directed special attention and care to patients with kidney and liver failure through the transfer of experiences, International to the Kingdom by contracting with international companies specialized in the field of dialysis and liver diseases, which care about the patient's health by following up on monthly tests,

which showed a significant improvement in the health of patients with kidney failure and liver patients undergoing hemodialysis and liver treatments.

The Kingdom of Saudi Arabia also paid attention to all the needs of patients with kidney and liver failure, not just the health aspect, It issued priority cards to, patient experience offices in hospitals affiliated with the Ministry of Health, which give them priority in applying in any place or governmental and private entity, and discount and boarding cards issued by comprehensive rehabilitation, which It helps them financially in cooperation with government and private agencies by offering discounts and the possibility of using disabled parking.

As a result of the increasing demand for organs for patients, there was an urgent need for donations from living individuals, as donations from the deceased and brain dead constitute the main source of organs, but the increasing demand calls for donations from the living. Many patients are standing on the waiting list to live a new life, and this requires study and search for an in-depth understanding of the mechanism of organ donation and the dissemination of knowledge about it.

1.1. Study Problem:

The problem of the study lies in exploring the factors influencing the incorrect decision of patients with kidney and liver failure to accept organ donation from their relatives. It also lies in the fact that every individual in this life is vulnerable to contracting an organic disease, regardless of its type, serious or minor, acute or chronic, which results in the emergence of psychological effects. It is important as a result of the patient's physical disability. Organic injury requires psychological care because the latter increases the difficulty of organic disorders and suffering, which inevitably affect the psychological balance and thus the emergence of complications. Once the patient is certain of his injury, this is enough to create special psychological responses in him, which take on several manifestations. These include fear, depression, and anxiety about the future, depending on the individual's personality, readiness, and circumstances.

However, the subject of our study revolves around the factors influencing the incorrect decision of patients with kidney and liver failure to accept organ donation from their relatives.

1.2. Study questions:

Through this study, we will explore the answers to the following questions:

- What is the concept of kidney and liver failure and the criteria for kidney and liver donation?
- What is the importance of organ donation?

- How do the medical, ethical, personal, and emotional dimensions contribute to patients' refusal to accept organ donation?
- What are the psychological factors of patients and their families that influence the decision to donate organs?
- How do the roles of social workers, psychiatrists, and health system roles affect the organ donation process?
- Statement of legal considerations and legislation regarding organ donation

1.3. Objectives of the study:

- 1- Recognizing the concept of kidney and liver failure and the criteria for kidney and liver donation.
- 2- The importance of organ donation.
- 3- Identify the medical, ethical, personal, and emotional dimensions that contribute to patients' refusal to accept organ donation
- 4- Explaining the psychological factors of patients and their families affecting the decision to donate

1.4. Study importance:

The importance of the research lies in exploring the factors influencing the incorrect decision of patients with kidney and liver failure to accept organ donation from their relatives. The importance also lies in enriching the knowledge structure of the social service specialty with regard to patients with kidney failure and liver disease. The importance and value of the research also lies in the fact that it works to feed the scientific research. Given the lack and the paucity of research of research that has dealt with the organ donation process from the recipient's perspective and his decision to accept the donation, whether from relatives or other donors, as most scientific studies have focused on the donor and not on the recipient himself and the factors that influence his decision to refuse the donation.

2. Literature review

Raziyeh, et al (2022). Concerns and Challenges of Living Donors When Making Decisions on Organ Donation: A Qualitative Study.

This study aimed to know and explore the fears and mental problems of living donors during the decision-making process for organ donation. And explain the impact of organ donation on living donors in southeastern Iran. The present study was performed using qualitative content analysis,

and the data were collected through the interviews with 21 participants, The study sample consists of relatives (father, sister, brother, and mother), and nonrelatives humanitarian aids. The study concluded that concerns were divided into individual concerns and barriers (perceived by the donor), interpersonal concerns and barriers (experienced by the family), and socio-organizational barriers and concerns (apparent in the community). Most notably: The decision-making process has been greatly influenced by various concerns such as medical uncertainty, post-donation recovery, family responsibilities, concerns regarding the health of the recipient, and the health of future donors. Asking for the opinions of lay people to confuse the donor. Diversity of opinions raises doubts in decision making, in some cases, the recipient flatly refuses to accept organs for fear of harming the donor and feeling indebted to the donor, Consequences such as shortening life, weakening the body and not returning to daily life after donation until the end of life.

Deepak, et al, (2023). Challenges and Motivators to Organ Donation: A Qualitative Exploratory Study in Gujarat, India: A Qualitative Study.

The study aims to document the motivating factors and obstacles in the decision of families to donate organs in Ahmedabad, Gujarat and their recommendations for enhancing the procedures associated with organ donation, From October 2021 to February 2022, ten family of deceased organ donors participated in an in-depth interview-based qualitative exploratory study. Family members' belief or conviction that it would help save the lives of others, a sense of moral obligation to do so because brain-dead people's bodies can contribute to this noble goal, the fact that there is no use for the body after death, an extension of life, and serving as an example for others were found to be the most significant motivators. The difficulties included mistrusting the organ donation procedure, being afraid of being held accountable for any accidents, and feeling of shock.

Thamer Hadim et al. (2018) Assessment of the level of willingness to donate liver and kidney among the general population in Saudi Arabia.

The study aims to evaluate the level of willingness to donate liver and kidneys and its relationship to various socio-demographic factors among the general population in the Kingdom of Saudi Arabia. This is a cross-sectional study conducted in different regions in the Kingdom of Saudi Arabia during the period from March to May 2022. Data was collected through an online self-administered questionnaire prepared via a Google form. Participants were selected using a convenience non-probability sampling technique. SPSS program was used to conduct data analysis. Results: A total of 983 participants were included in this study. The majority were female.

The most common age group was 18-30 years. The study concluded that, participants' willingness to donate a kidney or liver was 23.6% for unknown patients and 71.1% for close relatives. It was observed that gender, marital status, age, income, and occupation were significantly associated with the desire to donate an organ to unknown patients, close family members, friends, or both. Keywords: donation, liver, kidney, general population, Saudi Arabia.

Valeria, et al, (2023): Organ donation: psychosocial factors of the decision-making process.

This study aimed to aim was thus to examine the psychosocial factors that are involved in organ donation. The study performed a literature search of studies on organ donation and transplantation, focusing on the psychological factors that are involved in the decision-making process. The review showed that: the Brain-dead patients are the main source of organs that can be donated, the sociodemographic factors, knowledge of the organ donation process, religious beliefs, concerns that are related to the choice to donate, and mode of communication are Affect the donation decision process.

DIB, L. A. D. R. et al. (2024). Accepting or refusing a donated organ for transplant: Dr. Jonas's dilemma.

This paper discusses Dr. Johnson's case for making the decision to donate or not as a teaching case. The case proves to be opportune to discuss Judgment and Decision Making (JTD) processes, especially the escape from rationality by simplifying behavioral heuristics and their consequent biases. The case was developed to be used in JTD or management disciplines in Health and Healthcare services in lato or stricto sensu postgraduate programs. Through case discussion, can help develop skills to structure decision-making and avoid common behavioral pitfalls.

Ruck J. M., et al, (2018). Interviews of living kidney donors to assess donation-related concerns and information-gathering practices.

This study aims to provide a qualitative and quantitative analysis of the concerns, misconceptions, and information gathering behaviors of living kidney donors. Semi-structured interviews were conducted with 50 LKDs who donated at our center to assess: concerns about donation that they either had personally before or after donation or heard from family members or friends, information that they had desired before donation, and where they sought information about donation. The authors identified 19 unique concerns as an outcome of the study 80% of participants reported having had pre-donation concerns; 62% reported post-donation concerns. The most common concern pre-donation was future kidney failure (22%), post-donation was the recovery

process (24%), The most commonly consulted educational resources were health care providers (100%) and websites (79% of donors since 2000). 26% of participants had had contact with other donors; an additional 20% desired contact with other LKDs. This study showed that addressing donor concerns before donation and after donation could help motivate the donation process, for the recipient or donor.

Devitt, J., et al. (2017). Difficult conversations: Australian Indigenous patients' views on kidney transplantation.

The Improving Access to Kidney Transplants (IMPAKT) research program investigated barriers to kidney transplantation for Indigenous Australians. An interview study, conducted in 2005–2006, elicited illness experience narratives from 146 Indigenous patients, including views on transplant. The study concluded that: Indigenous ESKD patients demonstrated an intense interest in transplantation preferring the deceased over living kidney donation, and the patients needed to negotiate cultural and social sensitivities around transplantation.

Ralph, A. F., et al. (2017). Donor and Recipient Views on Their Relationship in Living Kidney Donation: Thematic Synthesis of Qualitative Studies.

Thematic synthesis of qualitative studies was conducted by Ralph, A. F., et al., This was done through electronic databases that were searched until October 2015. From 40 studies involving 1,440 participants (889 donors and 551 recipients) from 13 countries, we identified 6 themes. The study showed Burden of obligation described the recipient's perpetual sense of duty to demonstrate gratitude to the donor.

Thys, K., et al. (2015). Psychosocial impact of pediatric living-donor kidney and liver transplantation on recipients, donors, and the family: a systematic review.

The authors systematically reviewed quantitative and qualitative studies addressing the psychosocial impact of pediatric living-donor kidney and liver transplantation in recipients, donors, and the family, the authors identified 23 studies that satisfied our inclusion criteria. Recipients had improved coping skills and satisfactory peer relationships, but also reported anxiety and depressive symptoms, worried about the future, and had a negative body image. With respect to family impact, transplantation generated a special bond between the donor and the recipient, characterized by gratitude and admiration, but also raised new expectations concerning the recipient's lifestyle, as psychological problems in recipients were sometimes induced by feelings of guilt and indebtedness toward the donor, treating this debt can provide an incentive for the recipient to accept donations from his relatives.

Waterman, A. D., et al. (2006). Living donation decision making: recipients' concerns and educational needs.

This study aimed to understand the psychological barriers and educational needs of potential kidney recipients regarding living donation, where the evidence indicates that some potential recipients with living donors have psychological concerns that prevent them from pursuing living donation. Addressing these concerns through education may increase the rates of living donation. Through this Qualitative focus group study of kidney transplant recipients, donors, and family members, the study showed that Kidney recipients reported that they might not pursue living donation because they felt guilty and indebted to the donor, did not want to harm or inconvenience the donor, did not want to accept a kidney that a family member might need later, and did not want to disappoint the donor if the kidney failed. Both donors and recipients thought that training on how to make the donation request and education about living donors' motivations for donation and transplant experience could help more renal patients pursue living donation.

Waterman, A. D., et al. (2008). Optimal transplant education for recipients to increase pursuit of living donation.

This study aimed to learn about recipients' decision making about living donation and preferred transplant education resources. A retrospective, cross-sectional survey was conducted for 304 kidney recipients. The results of the study showed that at least 75% wanted education discussing the evaluation, surgery, and medical tests required of recipients and donors, as well as common transplant-related fears. Recipients who received living donor transplants were more interested in information about donors' evaluation, surgery, medical tests, donation concerns, than were other recipients. Recipients who had living donors evaluated were more comfortable accepting family members or friends who volunteered rather than asking potential donors because of concerns about pressuring donors, harming their health, or causing them pain or inconvenience. Education that addresses recipients' concerns about the transplant process, explains living donor donation experiences, and teaches patients how to proceed with living donation may increase recipients' pursuit of living donation.

Previous studies have shown that there is a problem in decision-making for the donation process involving the recipient, donor, family members, medical staff, and social, cultural, professional, material, and religious factors.

Since in this study we focus on the recipient's decisions regarding the extent to which he accepts donations from his relatives, the influencing factors can be divided into factors before the donation and factors after the donation.

Factors before donation are knowledge and understanding of medical procedures, transplantation and surgery, and factors after donation are debt to the donor and a sense of responsibility for the donor's future, his long-term health condition, his professional future, health insurance for future complications, the impact of the donation on the donor's professional life and his family, and the recipient's continuing education. Reducing psychological pressure contributes to motivating decision-making.

3. Theoretical framework:

3.1. Definition of kidney and liver failure and diagnosed

The primary function of the kidney is to remove wastes, salts, and excess fluids from the blood, and return pure blood to the body. Every minute, the heart pumps one liter of blood to the kidneys, which is equivalent to one-fifth of what the heart pumps. The blood enters the kidneys through the renal artery, and when wastes are removed, pure blood is returned to the body through the renal vein, there are two types of kidney failure: chronic kidney failure, which is a gradual decrease in kidney function over the years, while acute kidney failure occurs over a short period ranging from hours to days. In the case of acute kidney failure, the kidneys may often regain their functions after treating the cause. (Alessa MY, et al, 2023)

Hepatitis is an inflammation of the liver, it can cause liver damage, affecting its vital functions. They are often caused by various forms of hepatitis viruses; the most common in the United States are hepatitis A and B, and people can also develop hepatitis from excessive alcohol intake, toxins, certain medications, and certain medical conditions, such as diabetes and obesity. (Al-hassan, 2021)

3.1.1. Statistics on kidney and liver failure in KSA

Chronic kidney disease (CKD) is a significant health concern in the Kingdom of Saudi Arabia (KSA). Currently, over 20,000 patients in KSA are on dialysis, and 9,810 patients are under follow-up after kidney transplantation. The combined prevalence of renal replacement therapy in Saudi Arabia is estimated to be 294.3 per million population, In Saudi Arabia, the age-standardized prevalence of CKD (stages 1–2, stage 3, stage 4, and stage 5, excluding renal replacement therapy) is estimated at 9,892 per 100,000, which is higher than the estimates for Western Europe (5,446

per 100,000) and North America (7,919 per 100,000). According to the National Health and Nutrition Examination Survey (NHANES), the prevalence of CKD among adults in the United States is 11.7%. A single study on the prevalence of CKD among the young Saudi population (mean age of 37.4 ± 11.3 years) estimated the CKD prevalence in this group at 5.7% using the Modification of Diet in Renal Disease (MDRD)-3 equation and 5.3% using the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation. (Khaled. et al, 2019)

The Saudi Ministry of Health also classified viral hepatitis as the second most common viral disease after chickenpox, with nearly 9,000 new cases diagnosed (52% hepatitis B virus, 32% hepatitis C virus, and 16% hepatitis C virus). Epidemiological), as progress in mapping the epidemiological pattern of viral hepatitis in the Kingdom of Saudi Arabia has accelerated significantly over the past two decades.

3.2. Overview of Organ Donation and Importance of organ donation

3.2.1. Organ Donation

Organ donation is a charitable act that contributes to changing the lives of many patients who are waiting or searching for someone to donate to them. Some may be afraid to take this step for fear of thinking about death, even though the idea of donating organs is not an easy one.

Organ donation is when the donor allows others to benefit from one of his organs during his life, or all of his organs and tissues after his death, without compensation, and this donation is supervised by a licensed medical team. (Khaled. et al, 2019)

Organ transplantation is the transfer of a healthy organ from the body of a donor (donor) and its attachment to the receiving body (recipient) to take the place of the sick organ in performing its functions. It is called a donation as a way out of what might happen from the sale of organs that is forbidden by Islamic law, in order to preserve a person's dignity and block the paths that lead to the waste of his soul. The basic principle here is that Giving and donating through organ donation, so that human organs are not a commodity to be sold and thus their dignity is wasted. (Warejko JK, et al, 2018)

3.2.2. Importance of organ donation

Organ donation provides a second chance at life for people of all ages who suffer from life-threatening diseases or injuries to their vital organs. Other donated organs, such as kidneys and liver, can enhance life by helping to restore movement and other bodily functions.

3.2.3. Criteria for kidney and liver donation

There are different criteria depending on the type of donation, living donation or donation from a deceased person, and it is not possible to donate a kidney or liver without the donor meeting the conditions for kidney donation, which include the following: (Khaleghim, 2021):

Health Status and Health evaluation, and mental health, follow a healthy lifestyle, Conduct donor evaluation tests, Psychological Evaluation, Informed Consent, Normal kidney and liver function tests. The Criteria vary from one health center to another, which are explained in precise detail and made clear to the donor, the recipient, and the community, and the general standards are mentioned.

3.3. The medical, moral, personal, and emotional dimensions contributing to patients' refusal to accept donations.

Health care centers and donation and organ transplant centers suffer from the problem of recipients refusing to accept donations from relatives, Where the patient is refusal to accept donations stands out as one of the many and most complex issues that face many dimensions. It is not only a medical decision, but rather involves many interconnections and interactions in the medical, moral, personal, and even emotional aspects, as medical fears center on the failure of these surgery or the development of their symptoms. Side effects, which also raise this complexity are personal and emotional factors, as the patient may be influenced by the sayings and opinions of society and then the family and relatives. (Goldaracena, et al, 2015)

Raising the idea of donation to the patient generates psychological pressure, anxiety, and fear of the future for the donor, which makes the decision-making process for the recipient difficult and awkward and requires psychological and educational intervention, emotional support, family support, and in-depth explanation by health care providers, gradually without coercion or pressure. We will examine the recipient's psychological, emotional, and personal factors that influence his or her decision-making process. Through the ANP analysis done by Lo, C. L., et al, (2022), it was found that when family members made organ donation decisions, the weights of the four domains are as follows: psychology—47.6%, externality—20.3%, spirituality—19.7%, and physiology—12.3%. Therefore, psychological intervention plays the biggest factor in the decision-making process.

3.3.1. Psychological factors of patients and families affecting the decision to donate.

The psychological factors of the recipient and the family are the largest factor in the decision to donate. Many psychological factors interact with the recipient and the family.

We will mention it together as follows:

- Anxiety and depression: The process of donating from a relative to a recipient goes through pre-donation and post-donation factors, and discussing the idea of donation generates psychological feelings for the recipient related to the donor and fear for his future, suggest Uehara et al. (2011) tested the State-Trait Anxiety Inventory (STAI), the Beck Depression Inventory (BDI), the Medical Outcome Study 36-Item Short-Form Health Survey, and the 20-item Toronto Alexithymia Scale (TAS-20). It helps in understanding the psychological state of the patient.

- Guilt: Some recipients may feel guilty about the donor and the complications that may result, and these are among the factors after donation, such as fear of failure of the surgical procedure, fear of the future health condition of the donor, the professional status of the donor, and here requires educational intervention by the health care team and spreading a spirit of reassurance in particular. With post-donation care and health and professional insurance services for the donor, according (Siminoff et al., 2017) indicates that feelings of guilt and moral responsibility can deter individuals from agreeing to donate organs from their relatives.

- Social Support: Emotional and social support from family, friends, colleagues, and health care providers gives a positive impression on the patient and improves his motivation to accept donation decisions, which encourages him to continue his life, provided that the social support is natural and available spontaneously.

- Health understanding and knowledge: The educational and cultural role of health care providers for the recipient removes and alleviates the psychological factors of fear of the future and fear for the life of the donor through the mechanism of performing surgical operations and the future life of the donor. This gives a positive and motivational character to the patient to accept the donation from his relatives when he has full knowledge of medical matters and high confidence in the system. Health, A study by Alvaro, Siegel, and Jones (2011) highlights out the importance of health literacy and education in facilitating informed decision-making regarding organ donation.

From a family perspective, psychological factors have an impact on decision-making. The most prominent of these factors are:

- Emotional disturbance: The emotional turmoil and sadness of the patient's condition generates a state of mental imbalance in informed decision-making, according Sque, Walker, Long-Sutehall, Morgan, and Randhawa (2018) indicates that high levels of grief can hinder families' ability to process information about donation, making it challenging to consent.

- Status of family cohesion: Some families suffer from family fragmentation, weak patterns of communication, support, and distraction in making decisions, and this is a psychological factor that affects the recipient. Siminoff, Burant, and Youngner (2004) found that family which have a clear decision-maker positively influences the likelihood of agreeing to organ donation. Zuchowski et al. (2021) highlight that the presence of written letters between the donor and recipient may enhance satisfaction in accepting the donation. and according Moran J, et al. (2021) the need to assess the donor-recipient relationship pre- and post-donation and provide appropriate support, and study the expected relationship changes after donation.

We find from the above that psychological factors constitute the main influence on the recipient's decision to accept a donation from his relatives. They are classified into pre-donation and post-donation, and the psychological factors generated after donation constitute the most influential criterion. Sharing the successful experiences of kidney and liver transplants and the donors' life experiences after donation. Long periods of time may generate confidence in consent for decision making.

3.3.2. Personal and Moral factors of patients and families affecting the decision to donate

The patient's level of knowledge reflects the level of awareness and information he possesses about the great benefits of organ donation and the importance of performing the surgery, which in turn has the greatest influence on the patient's decision. The lack of this knowledge and information about the importance of organ donation leads to hesitation or rejection, and personal feelings also affect his decision. Such as the fear of failure or death. (Salomon, et al. 2015)

We will mention the most important personal factors affecting the recipient to agree to accept the donation:

- Indebtedness: Some patients believe that agreeing to accept a donation from one of their relatives exposes them to indebtedness to the donor for life. When the donation process is depicted under the principle of altruism and moral duty, it gives comfort and a higher rate of acceptance of the donation. A Research by Siminoff, Gordon, Hewlett, and Arnold (2001) indicates that patients who perceive organ donation as a moral duty are more likely to consent to donation, driven by the desire to contribute to the greater good and save lives.

- Religious and moral beliefs: Personal religious beliefs play an important personal factor in the recipient's decision to accept a donation from his or her relatives, according to a study conducted by Al-Sejari, Maha. (2018). for a sample of respondents in Kuwait, it showed that "if it is approved by religious rules and principles" was the main factors that encourage participants to accept

donating their organs reported by (54.3%). in other studies (Birtan et al., 2017; Leblebici, 2021). These studies thus suggested Encouraging organ donation among religious leaders and sharing these experiences could be an important tool.

- Fear of the future: Among the personal factors among the recipients from their relatives, fear of the future and the life of the donor (Reduced quality of life, Higher levels of fatigue, Relationship changes, professional life), fear of the success of the surgery, trust in the health system, and the health, psychological, material and terminal effects of the donor in the distant future. These fears must be addressed through education and intervention from health care providers and relevant insurance institutions. It may help stimulate consent in decision-making, especially if there is develop a post donation support plan.

- Trust in the health system: the trust in the health system and health care providers is an important personal factor for the recipient and the family. Successful experiences give an incentive to agree to donation decisions. On the contrary, medical errors and their percentage give a negative impact to the recipient and his or her relatives. Health care providers must share successful experiences and indicate the percentage of medical errors they have. Fears of the results generated by the recipient from the success and complication of the surgery provide an important indicator for the consent decision. According to a study by Rodrigue, Cornell, Howard, Kaplan, and Lin (2008), patients who had positive prior healthcare experiences were more likely to be open to organ donation.

From the above, we find that there are psychological, moral, personal, religious, and health system factors, which are overlapping factors with varying influence that affect the recipient's decision to accept a donation from his relatives, and these factors are treated according to specific psychological tests, health tests, examination of family dynamics, family relationships, social-emotional support, and future insurance guarantees. Long-term results give a positive impact on the decision to accept the donation.

4. Study methodology

The descriptive approach, will used in this study using Questionnaire to studying and analyzing the most important topics related to exploring the factors influencing the incorrect decision of patients with kidney and liver failure to accept organ donation from their relatives.

4.1. Study population: The patients who have declined familial organ donations, as well as their family members, healthcare providers, and the general public In the Kingdom of Saudi Arabia.

4.2. Study Sample: A random sample of 2,347 was selected.

4.3. Study Tool: The study will use a Questionnaire consisting of 26 questions. The questions were formulated to explore the factors influencing wrong decisions according to the opinions of the study sample.

5. Results and discussion:

5.1. Descriptive analysis of the study sample:

Table 1: Distribution of selected sample according to demographic Characteristics (n=2347)

Gander	Frequency	Percent
Male	1250	53%
Female	1097	47%
Total	2347	98.37%
Age	Frequency	Percent
18-30	280	12%
31-40	703	30%
41-50	438	19%
51-60	590	25%
61-70	310	13%
71 - 80	26	1%
Total	2347	100%
Educational level	Frequency	Percent
Secondary	327	14%
Diploma	274	12%
University degree	695	30%
Postgraduate	296	12%
PHD degree	741	32%
Total	2347	100%

Source: This table was built based on the analysis of questionnaires taken from a sample

From Table (1) it is clear that the percentage of males is 53%, and this gives the impression that the response of males is slightly greater than that of females, and this may be attributed to exposure to more knowledge and information about the culture of donation.

The percentage of females reached 47%, which is a response rate similar to that of males, and there are no significant differences in response, although females tend to Donation is more likely due to the emotional characteristics and social roles that support care and giving. However, most previous studies indicate that gender does not have an impact on organ donation decisions.

Regarding age, the highest response was for the age group 31-40 years with a rate of: 30%, the age group 51-60 ranked second with a rate of 25%, and the age group 41-50 in third place with a rate of 19%, and this gives the impression that this age group has increased awareness about the benefits of donation. With organs and a sense of solidarity with others, the age group 18-30 came in fourth place with a percentage of 12%. This gives an indication of the lack of awareness and knowledge about the concept of organ donation and its mechanism. In the last two places came the age group 61-70 with a percentage of 13% and the age group 71-80 with a percentage. 1%. This is a small response rate that may be attributed to fear of the effect of donation on the quality of life in old age, and fear of surgical operations.

Regarding the level of education, the highest percentage was 32% PHD degree, and this indicates the high level of awareness for this group and the high Extensive knowledge of medical operations, the donation mechanism and its benefits. As the higher the educational level and scientific stock of the individual, the greater his awareness of the concept of organ donation, its benefits, and its mechanism.

University degree comes in second place at 30%, and this indicates that educational attainment plays a major role in shaping individuals' attitudes toward organ donation. The higher the level of education, the greater the knowledge and awareness of the importance of organ donation, which reduces the rate of rejection.

The rest of the educational levels had a lower response rate, and this calls for organizing appropriate and effective awareness campaigns in schools and vocational centers, targeting these levels with awareness and planning awareness campaigns, so that all educational levels in society are covered.

5.2. Qualitative analysis of the study questions:

The first, second and third questions in the questionnaire included the characteristics of the study sample in terms of gender, age, and the level of education, which constitutes the demographic characteristics of the study sample. Next, the rest of the qualitative questions will be analyzed to provide a deep understanding of the experiences and opinions of individuals, and research problem

and come up with results and recommendations that may assist decision makers and work to help patients get a new chance in life, which included 23 questions as follows:

Q4: From your point of view, what are the reasons that prompted a patient with kidney failure or a patient with liver failure to refuse to donate a kidney or part of the liver from one of his relatives? N= 2348.

The response results were as shown in Figure 1.

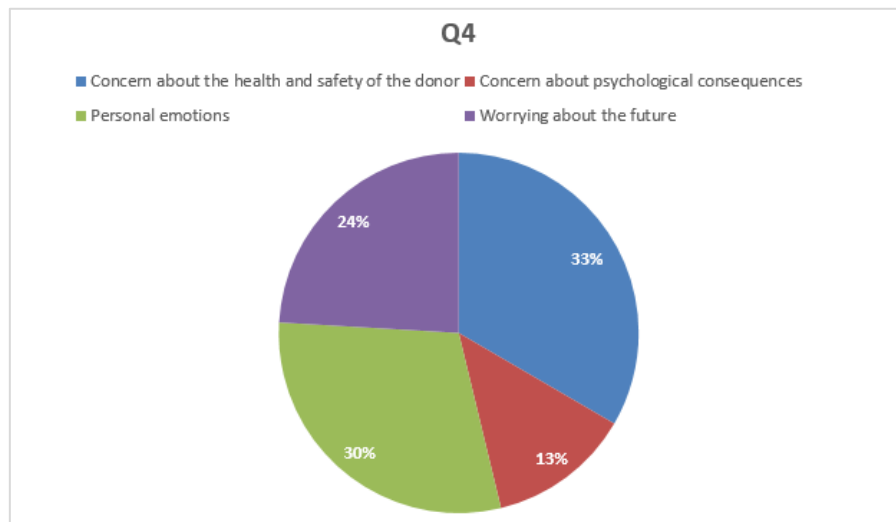


Fig. 1: The study sample's response to the question No. 4

From the previous figure, the phrase "Concern about the health and safety of the donor" came with the highest percentage of 33%, and this answer is consistent with what was stated in previous studies that patients fear for the health status of the donor and the extent of the success of the surgical operation, as well as the future of the donor and his professional life, and this calls for addressing these fears. The phrase "Personal emotions" came in second place at 30%. Personal emotions may be represented by feelings of guilt in the future or indebtedness to the donor. The phrase "Worrying about the future" came in third place with a rate of 24%, and this was confirmed by previous studies about the patient's fear of the future and the health and professional complications of the donor. Fears can be addressed here by presenting a post-donation plan that includes the donor's life and future and future health and professional insurance in case There were complications or effects on the donor, and the phrase "Concern about psychological consequences" came in fourth place with a rate of 13%, which is a small percentage indicating that the psychological consequences do not affect the decision, and this gives the impression of the existence of a family bond and cohesive understanding between the families of the sample.

Q5: Do you think that the chances of a successful donation from a relative have been discussed with the relevant doctors?

The response results were as shown in Figure 2.

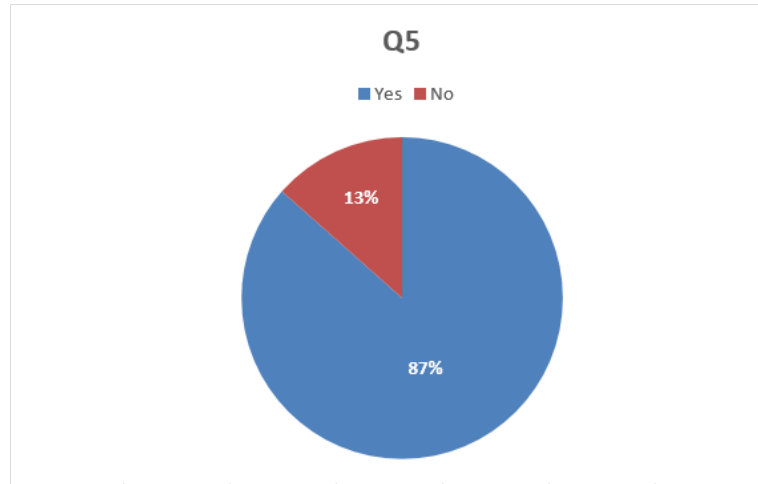


Fig. 2: The study sample's response to the question No. 5

From the figure. 2, The percentage of participants who answered yes was 87%, and no was 13%, and this gives an impression of the participants' confidence in the health system and doctors specializing in the donation process, as informed knowledge about ensuring that the donor is in good health and that the donation will not pose a major risk to His health, and examining the compatibility between the donor and the recipient in terms of blood types and tissues to reduce the chances of the body rejecting the transplanted organ. The process of discussing the success of the donation process between doctors, health care providers, the patient and the family is important for accepting the donation decision.

Q6: Do you think there are potential risks for the donor?

The response results were as shown in Figure 3.

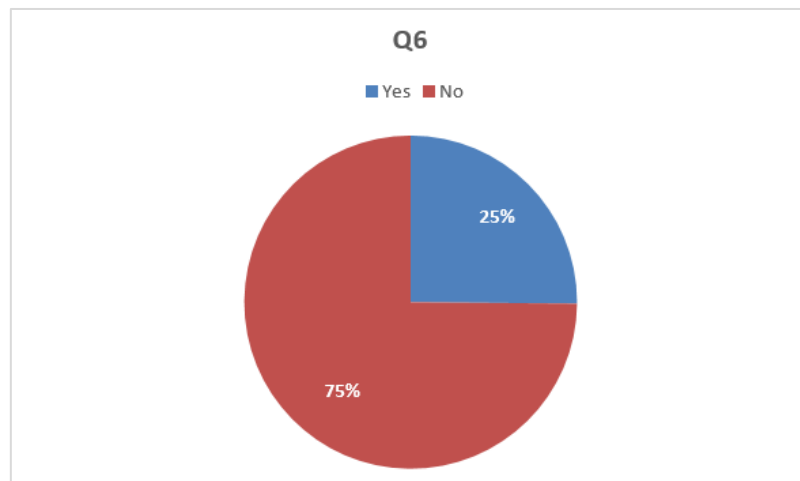


Fig. 3: The study sample's response to the question No. 6

From the figure. 3, The percentage of participants who answered yes was 25%, and no was 75%, The results of the answer to this question indicate a complete lack of awareness of the potential risks, which calls for the need for comprehensive awareness and education by doctors and specialists to ensure that informed and considered decisions are made. The reasons for the lack of complete awareness of the risks may be the desire to sacrifice, lack of information or guidance, and when the donor is very close to the donor. For the recipient, emotions may override the logical analysis of risks. The desire to help their loved one may make them ignore personal risks, but participants' answers give high confidence in the health care system.

Q7: Do you think that the patient suffers from psychological problems that may affect his decision?

The response results were as shown in Figure 4.

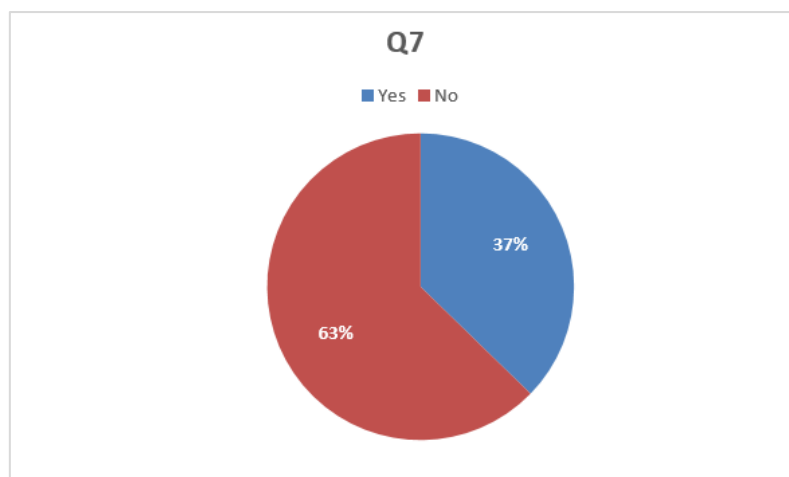


Fig. 4: The study sample's response to the question No. 7

From the figure. 4, The percentage of participants who answered yes was 37%, and no was 63%, The participants did not consider that the psychological problems suffered by the patient with kidney failure or liver failure might affect his decision, and the percentage was more than 63%. This answer comes to clarify that the psychological problems suffered by the patient with kidney failure and liver failure were not an obstacle in making the decision to donate from relatives. This gives the impression that the patient receives emotional support and a strong family connection, hope for recovery, which gives a strong motivation that outweighs the negative psychological effects, providing support from doctors and psychological counselors to relieve anxiety and stress, and learning about the successful experiences of other people who have donated may enhance confidence and reduce these psychological fears. Factors contribute to overcoming the psychological obstacles that relatives or the patient may face when making the decision to donate.

Q8: Do you think that the patient suffers from emotional problems that may affect his decision?
The response results were as shown in Figure 5.

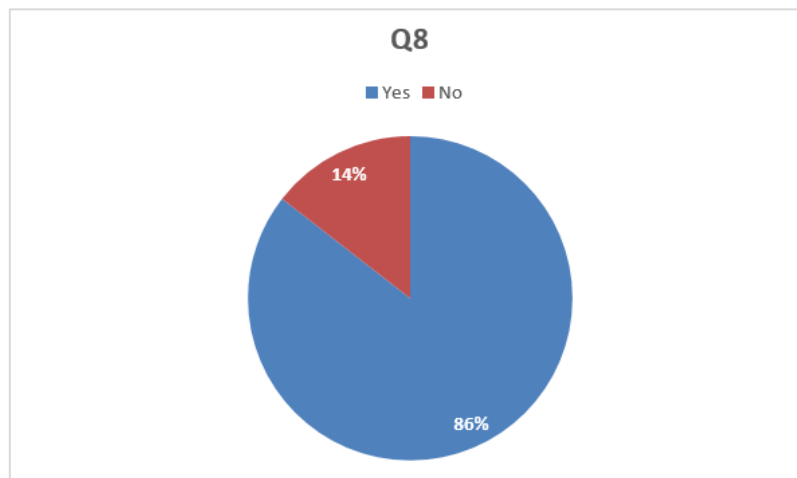


Fig. 5: The study sample's response to the question No. 8

From the figure. 5, The percentage of participants who answered yes was 86%, and no was 14%, The participants did not consider that the emotional problems suffered by the kidney failure or liver failure patient might affect his decision, and the percentage was more than 86%. This answer comes to clarify that the emotional problems suffered by the patient were not an obstacle in making the decision to donate From Relatives due to strong family support, A close relationship between the patient and donors (usually relatives) creates an environment of trust and mutual support, which facilitates the decision-making process, and the patients realize that donating reduces the emotional and physical burden on their families, which prompts them to make the decision to accept the donation.

Q9: Do you think that there are religious factors that may have an influence on the patient's decision?, The response results were as shown in Figure 6.

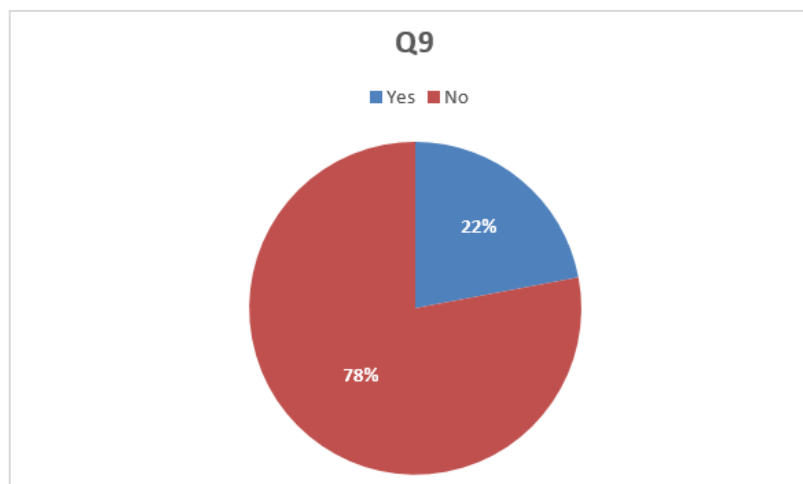


Fig. 6: The study sample's response to the question No. 9

From the figure. 6, The percentage of participants who answered yes was 22%, and no was 78%, More than 78% of the participants confirmed that there is no connection between the religious factors that may affect the patient's decision to agree to donate from his relatives, and these are due to religious compatibility with donation, as in Islam organ donation is considered a charitable act and help to save a life. others, personal understanding of religion and support received from clergy. As a result of these factors, patients may find that donation from relatives is consistent with or at least not significantly inconsistent with their religious beliefs, reducing the influence of religious factors on their decision, this was as confirmed by the sample response.

Q10: Is open dialogue important for a kidney failure patient or a liver failure patient who refuses to have his family members donate to him if the medical team and the family are present at the same time?

The response results were as shown in Figure 7.

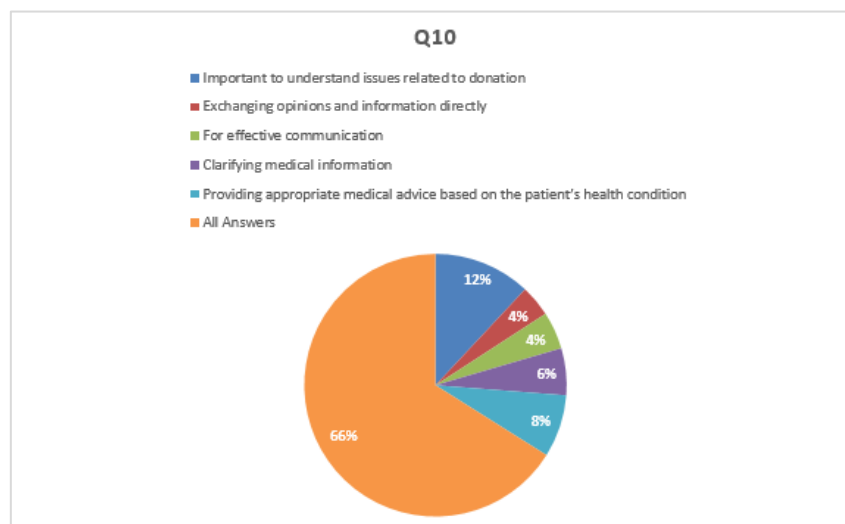


Fig. 7: The study sample's response to the question No. 10

From the figure. 7, The phrase "Important to understand issues related to donation" came with a higher rate of 12%, which confirms the necessity of open dialogue between the patient and the family and in light of the presence of the medical team to understand the issues, exchange opinions and visions, and eliminate differences in opinions, the phrase "Providing appropriate medical advice based on the patient's health condition" came. " By 8%, and the phrase "Clarifying medical information" by 6%. This indicates the necessity of the presence of the medical team in open dialogues between the patient and his family to clarify health and medical matters related to the donation process. The phrase "Exchanging opinions and information directly" and "For effective communication" came in by 4%.

This is consistent with what previous studies indicated that communication through written letters between the patient, his family, and the donor gives a positive impression, removes fears, and encourages the decision to accept, and open dialogues show their importance in the presence of the medical obligation.

Q11: Do you think that there are cultural factors that may have an impact on the patient's decision?

The response results were as shown in Figure 8.

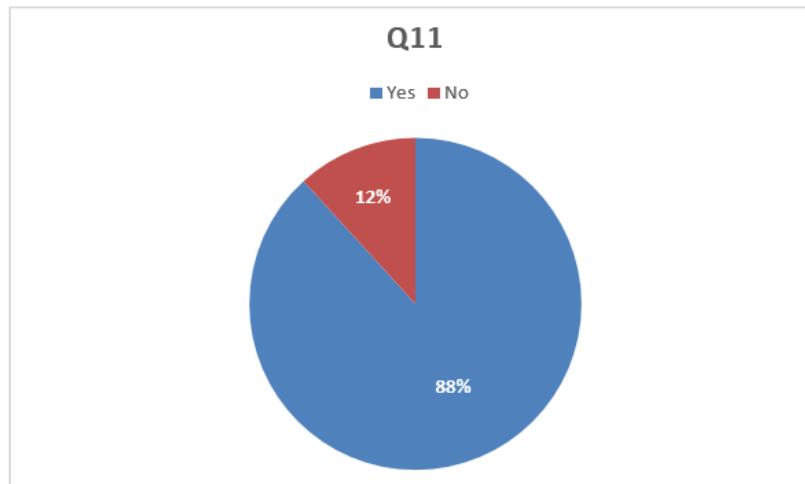


Fig. 8: The study sample's response to the question No. 11

From the figure. 8, More than 88% of participants in this question confirmed that cultural factors had an impact on the decision of a patient with kidney failure or liver failure to donate from his relatives. This may be due to strong expectations on individuals to help their relatives in times of need, a strong sense of duty and responsibility towards family members, fear of social stigma associated with not providing assistance to family members in need, and the presence of local success stories and positive examples of organ donation that can positively influence organ donation. The decision of the patient and his relatives. These cultural factors play an important role in shaping individuals' attitudes toward organ donation, which makes them influential in patients' decisions and their acceptance of donation from their relatives, as confirmed by the high percentage of participants' responses about the potential significant impact of cultural factors toward accepting donation.

Q12: Do you think that psychiatrists were consulted to help the patient understand and accept his decision better?

The response results were as shown in Figure 9.

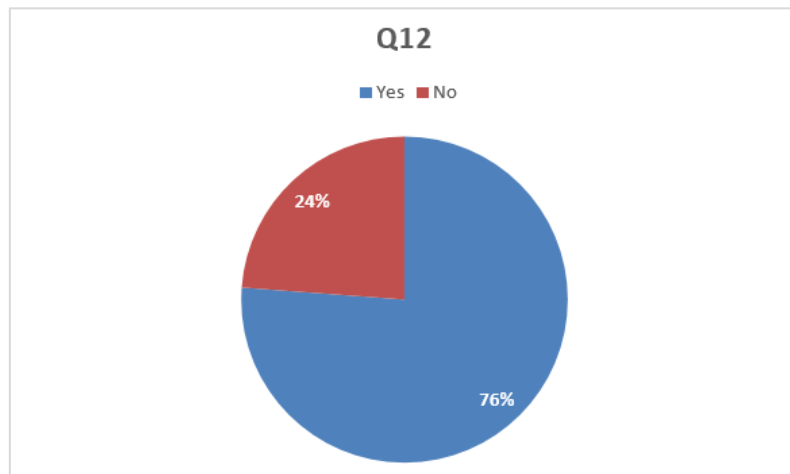


Fig. 9: The study sample's response to the question No. 12

From the figure. 9, More than 76% of the participants in this question confirmed that psychological medical consultations have a great impact in helping the patient understand and accept his decision regarding organ donation. This effect is manifested in several aspects: Psychological consultations provide the patient with accurate information about the surgical procedure and give a state of confidence and reassurance, as well as an indication of the presence of a supportive environment and a psychological counselor who provides continuous support. Therefore, psychological counseling plays a pivotal role in helping the patient deal with the psychological and emotional aspects of the decision to accept a donation from his relatives, which increases the chances of making an informed decision.

Q13: Do you think that social workers were consulted to help the patient better understand and accept his decision?

The response results were as shown in Figure 10.

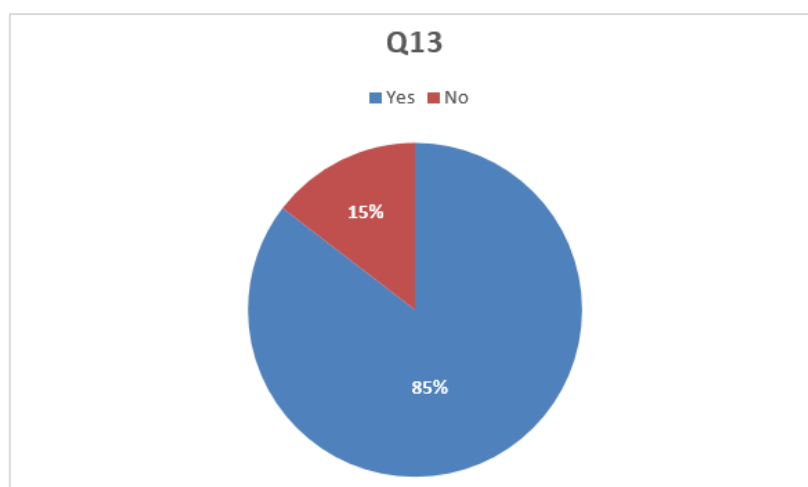


Fig. 10: The study sample's response to the question No. 13

From the figure. 10, The percentage of participants who answered yes was 85%, and no was 15%, This confirms that consultations were provided by Social Worker to patients, and gives an impression of the availability of social counselors among health care providers. It also emphasizes the importance of having a social counselor to provide consultation and advice to the patient by helping to reduce anxiety and stress through listening and empathy, and correcting misconceptions. Negative beliefs about organ donation and facilitating and organizing dialogue sessions between the patient, his family, and the medical team. The presence of social guides in the stages of the donation process is necessary and important, and this was confirmed by the participants' answers, and what health care providers should be aware of.

Q14: Do you think that there are other alternatives for treating kidney failure or liver failure that have been discussed with the patient?

The response results were as shown in Figure 11.

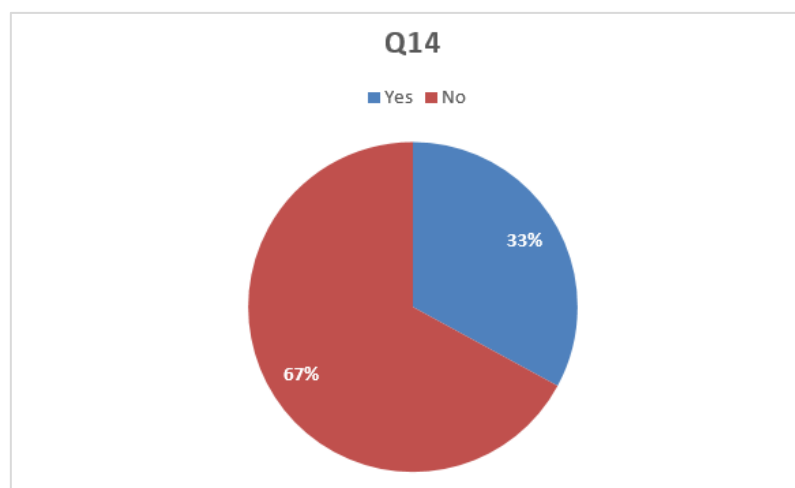


Fig. 11: The study sample's response to the question No. 14

From the figure. 11, The percentage of participants who answered yes was 33%, and no was 67%, The large percentage of participants (67%) who responded that alternatives were not discussed indicates that there is a lack of communication between doctors and patients, which is may due to work pressure or insufficient training in communication skills among doctors. Or the level of patients' knowledge about different medical alternatives is low, or this may be due to the economic factors associated with alternative treatments such as long-term dialysis. The option of kidney transplantation may be the most appropriate option for health care providers to receive new cases. These factors do not prevent patients' participation about alternative treatments and education. Educational information to make an informed decision to accept a donation.

Q15: From your point of view, how can we ensure family support for a patient with kidney failure or a patient with liver failure who refuses to have a family member donate to them?

The response results were as shown in Figure 12.

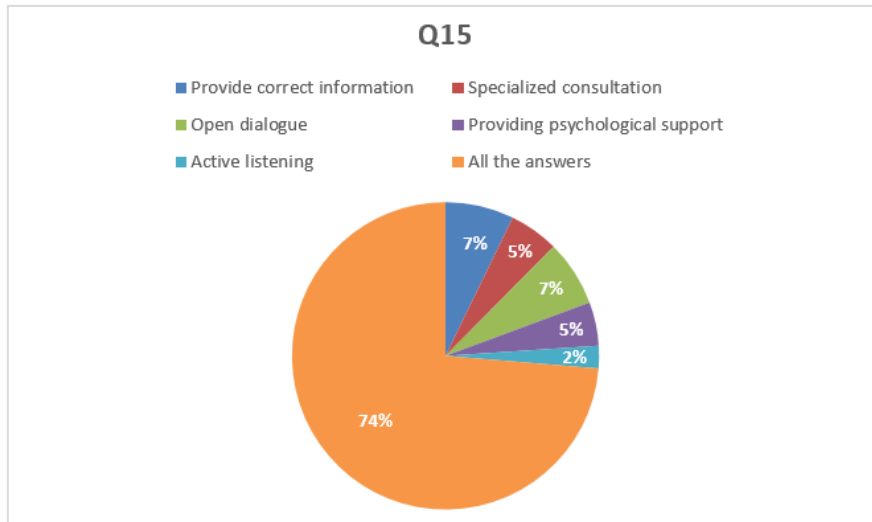


Fig. 12: The study sample's response to the question No. 15

From the figure. 12, The phrase “Provide correct information” and the phrase “Open dialogue” came at 7% to ensure family support for a kidney failure patient or a liver failure patient who refuses to have a family member donate to him, and the phrase “Providing psychological support” and the phrase “Specialized consultation” came at 5% and finally Active listening by 2%, while the participants responded that all statements were useful by 74%, as ensuring family support for a patient with kidney failure or a patient with liver failure who refuses to have a family member donate to him occurs through several factors, the most important of which are: encouraging open and honest dialogue and communication, and enhancing family solidarity. By establishing joint activities between the patient and the family, and by celebrating and motivating the technical staff and health care providers for any efforts made to support the patient by the family.

Q16: Do you think that the patient was given sufficient information about the impact of his rejection on his life and future health?

The response results were as shown in Figure 13.

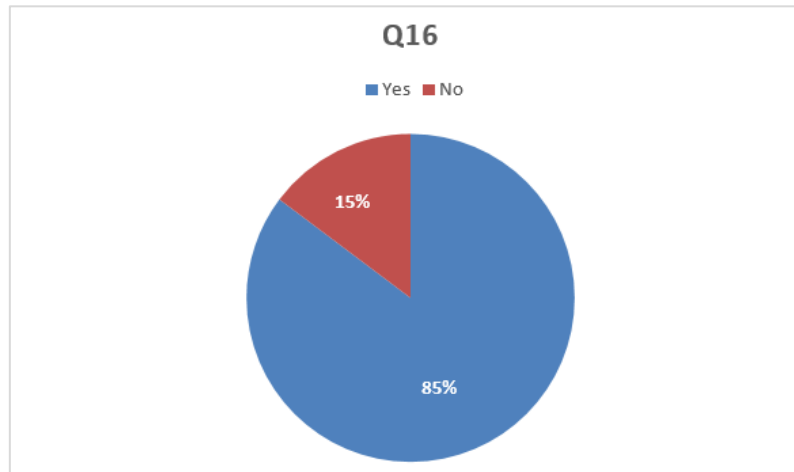


Fig. 13: The study sample's response to the question No. 16

From the figure. 13, The percentage of participants who answered yes was 85%, and no was 15%, The higher answer is that the effects of rejection have been informed to the patient, which gives an indication of the effective efforts of doctors and health counselors in providing comprehensive and detailed information about the patient's life and future health. Previous studies indicate the benefit of individual and group educational sessions, and educational visual materials such as videos and graphs, some patients may suffer from difficulty understanding medical matters or are under the influence of psychological and emotional pressures, which affects their understanding of the risks resulting from their rejection of the decision to donate, and this is what the percentage was 15%.

Q17: Do you think the patient is concerned about the consequences of kidney transplant surgery or liver transplant surgery and the potential risks?

The response results were as shown in Figure 14.

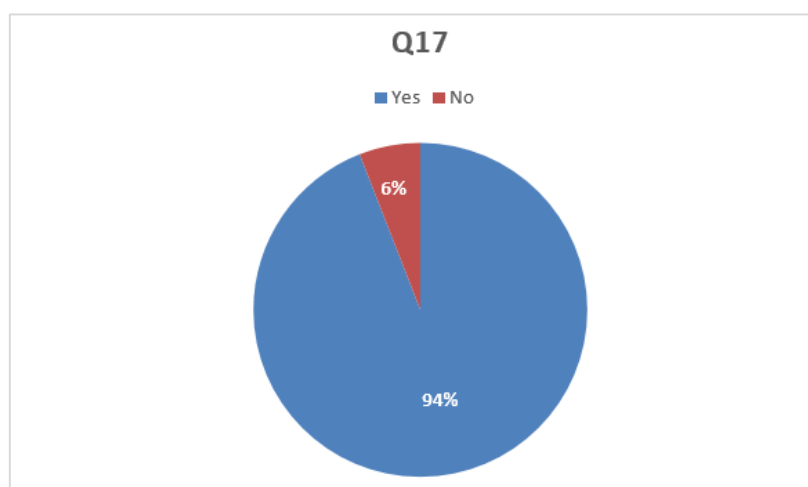


Fig. 14: The study sample's response to the question No. 17

From the figure. 14, 94% of participants confirmed that the patient feels concerned about the consequences of kidney transplant surgery or liver transplant surgery and the potential risks. This is normal, as this factor constitutes one of the main factors in patients' rejection of the decision to donate, and it needs to be addressed from several factors. Factors before donating are By raising awareness, educating, and teaching about medical matters, sharing successful experiences and the percentage of medical errors recorded by health care providers over previous years and cases, enhancing confidence in the health system, and factors during the donation process, in terms of biological compatibility between the donor and the patient, education about the process, and transparency in medical examinations, as some Patients or donors are afraid of anesthesia or surgical operations, which requires discovering and addressing these fears, if any, and the factors after donation, in terms of presenting long-term post-donation plans, addressing the health and professional concerns of the donor and the patient himself, the physical effects that may occur to the donor, and providing insurance plans. The health and professional life of the donor after the donation, as the donation process may affect the professional life of the donor for those who work in hard jobs that require physical effort and address these concerns with the patient and the donor.

Q18: Do you think that there may be family disputes that have an impact on the patient's decision to accept organ donation from his relatives?

The response results were as shown in Figure 15.

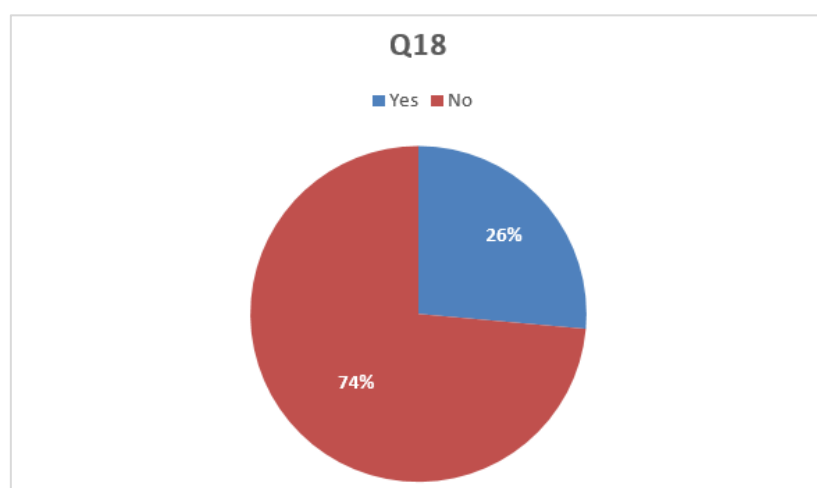


Fig. 15: The study sample's response to the question No. 18

From the figure. 15, 26% of participants believe that there is an influence. This result indicates awareness that family disputes can influence patients' decisions, and this is a possible possibility, although the highest percentage, 74%, believes that this influences, and this gives an impression

of the ability of individuals to make independent health decisions without the influence of disagreements of Family members. In our study, the focus was on donation from the family. The patient's independent health decisions are weak. Strengthening family cohesion and cooperation is important. As mentioned previously, this can be done through social counselors, organizing group activities for family members, and motivating and welcoming any effort made by a family member towards the patient. Although families in Saudi society and Arab culture are characterized by mutual support, altruism, and providing assistance to family members in need of assistance, and the strong family bond that exists from Islamic religious teachings, the presence of some families that suffer from disintegration and problems constitutes a small percentage in society, and this may be the reason why most participants answered that Family disputes have no influence on the patient's decision.

Q19: Do you think that there may be personal differences that have an impact on the patient's decision to accept organ donation from his relatives?

The response results were as shown in Figure 16.

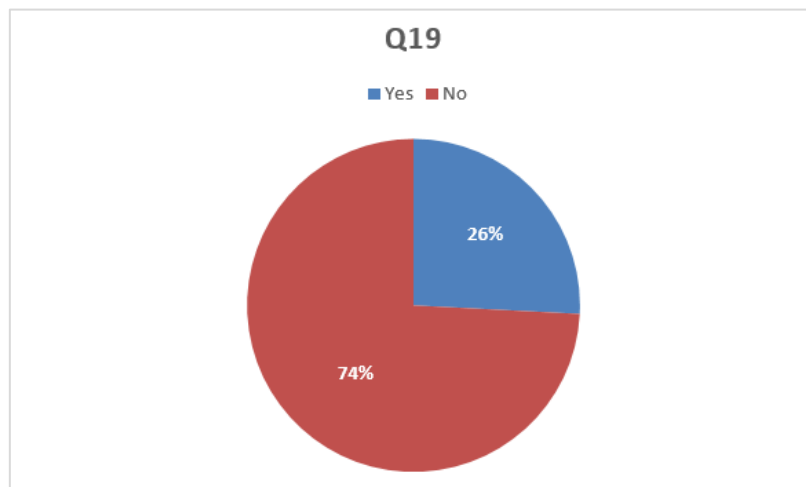


Fig. 16: The study sample's response to the question No. 19

From the figure. 16, The percentage of participants who answered yes was 26%, and no was 74%, The lower percentage gives an indication that personal conflicts may make the patient hesitant to accept help from people with whom he has a tense relationship, and this is a possible possibility. The largest percentage indicates that the majority believe that the patient is capable of making health decisions independent of personal conflicts, and this gives an indication that there is confidence in the ability of individuals to separate their personal feelings from their medical decisions, where the health benefits and future consequences of their decision should be promoted instead of tense personal relationships. When there are personal conflicts, the role of the medical

team, health care providers, and Social Worker is highlighted in motivating decision-making based on medical information and health recommendations rather than being influenced by personal differences.

Q20: Do you think that the patient feels guilty or pressured to accept donations from relatives?

The response results were as shown in Figure 17.

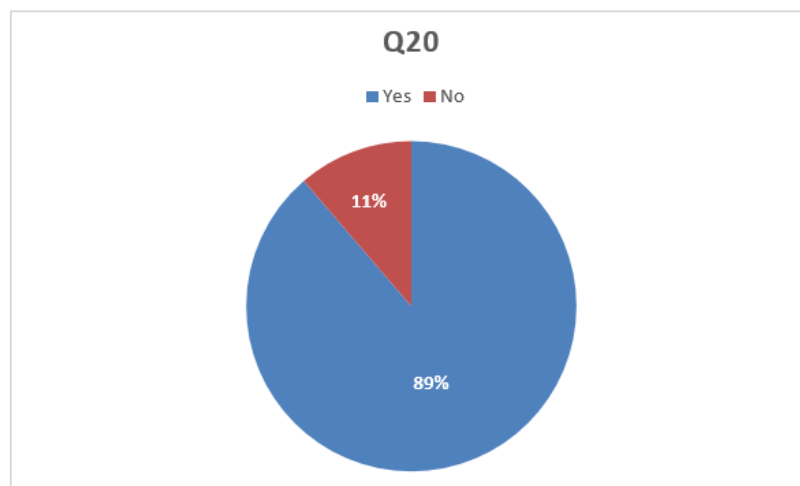


Fig. 17: The study sample's response to the question No. 20

From the figure. 17, The majority of participants' responses, 89%, believe that the patient feels guilty or pressured to accept donations from his relatives, This answer is consistent with previous studies that confirmed that feeling guilty in the future is one of the most prominent factors affecting the patient's decision to accept a donation from his relatives, and this can be addressed by strengthening moral values such as altruism and the social responsibility that the family owes towards one of its members. While providing awareness and education about the health benefits of the recipient and to preserve his life. Health care providers here should promote the shared decision-making model. The 11% lower answers indicate that the patient does not feel guilty or pressured to accept donations from his relatives. This indicates family dynamics, as studies indicate that the weak emotional relationship between the patient and the potential donor does not generate a feeling of guilt in the future or that there is great pressure on the patient to accept the donation, on the contrary. The great emotional relationship between the patient and the potential donor generates a feeling of guilt in the patient, as well as increased pressure on him to accept the donation from potential donor.

Q21: Do you think it is in the interest of a patient with kidney failure or a patient with liver failure to listen to their friends when they talk about organ donation?

The response results were as shown in Figure 18.

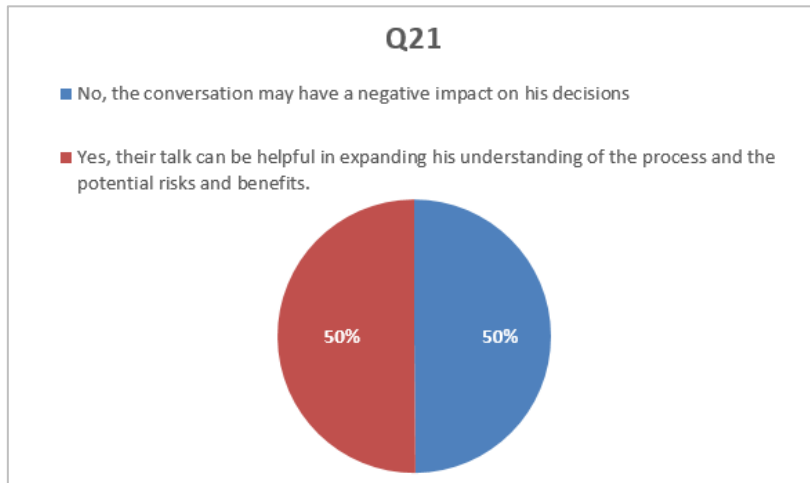


Fig. 18: The study sample’s response to the question No. 21

From the figure. 18, It appears that those who answered “yes” their talk can be helpful in expanding his understanding of the process and the potential risks and benefits by 50%, and those who answered “no” the conversation may have a negative impact on his decisions by 50%. The participants’ answers show a balance of opinions. Listening to friends may give the patient psychological support and encouragement when he knows that his friends are thinking and accepting about donating. However, previous studies indicate that distraction in listening from friends, especially non-specialists, gives the patient distraction in opinions and thinking and increases the patient’s psychological pressure, as well as opinions. Or ill-considered conversations lead to confusion and confusion for the patient, which affects his medical decisions, and therefore decisions related to his health must be based on his advice with specialized doctors and social workers.

Q22: The patient was given sufficient information about the procedure and expected results.

The response results were as shown in Figure 19.

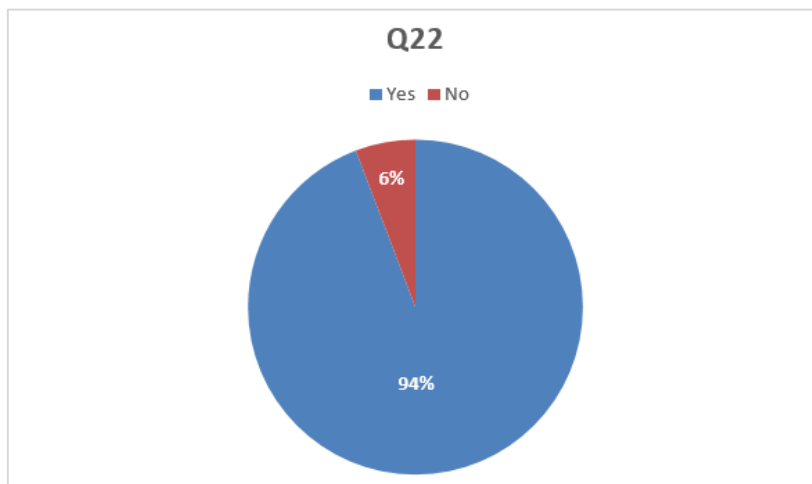


Fig. 19: The study sample’s response to the question No. 22

From the figure. 19, More than 94% of the participants in this question confirmed that the patient had sufficient information about the process and the expected results through the awareness departments in the organ transplant centers. This indicates the integration of the organ transplant centers in the Kingdom of Saudi Arabia and the coverage of all aspects through which ensuring the success of the organ transplantation process as well as ensuring the future safety of the donor. This confirms what previous studies have indicated about the necessity of health care providers providing complete information and the most frequently asked questions and publishing the information on their official websites and periodic bulletins, and this works to spread awareness and increase donation decisions.

Q23: Was believing rumors one of the reasons why kidney failure patients and liver failure patients refused to donate a kidney or part of their liver from a member of their family?

The response results were as shown in Figure 20.

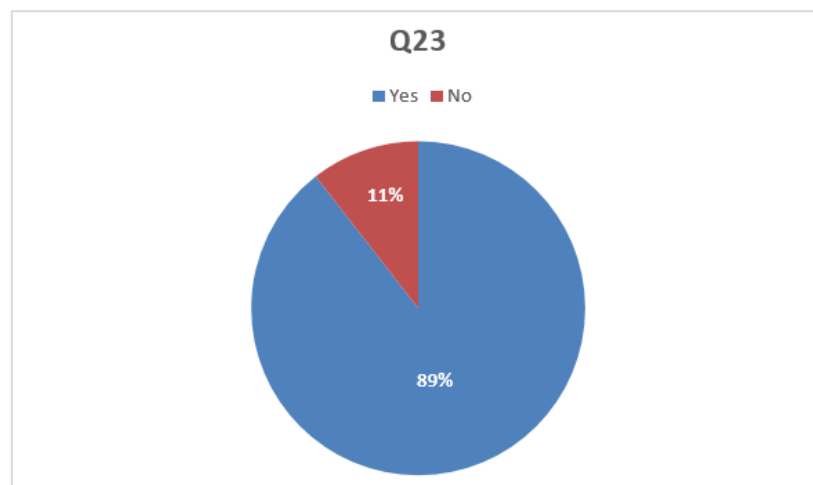


Fig. 20: The study sample's response to the question No. 23

From the figure. 20,%89 of the participants in this question confirmed that rumors were one of the most prominent reasons for the refusal of patients with kidney failure and patients with liver failure to accept donations from relatives. As rumors often include inaccurate or misleading information about the risks of donation and possible complications, which raises fear and anxiety among patients and their families. Rumors may also focus on rare or exceptional cases of failed donations. Also, negative stories circulating about donation experiences may have a significant impact. On patients' decisions, as people tend to remember and share bad news more than good news, and rumors may raise doubts about the intentions of doctors or the health system, making patients unsure of the donation process itself and whether the donor will receive adequate care

after donating. Rumors also create social pressure on individuals, which makes patients hesitate to accept donation for fear of stigma or negative judgment from others.

To reduce radiation, it is necessary to spread health education, as in societies that lack good health education, rumors may be the main source of health information. Positive media coverage and publishing successful experiences also contribute to reducing rumors that greatly affect the decisions of patients and their families and the loss of confidence in the health system.

Q24: How to convince a kidney failure patient and a liver failure patient to agree to have a member of their family donate to them?

The response results were as shown in Figure 21.

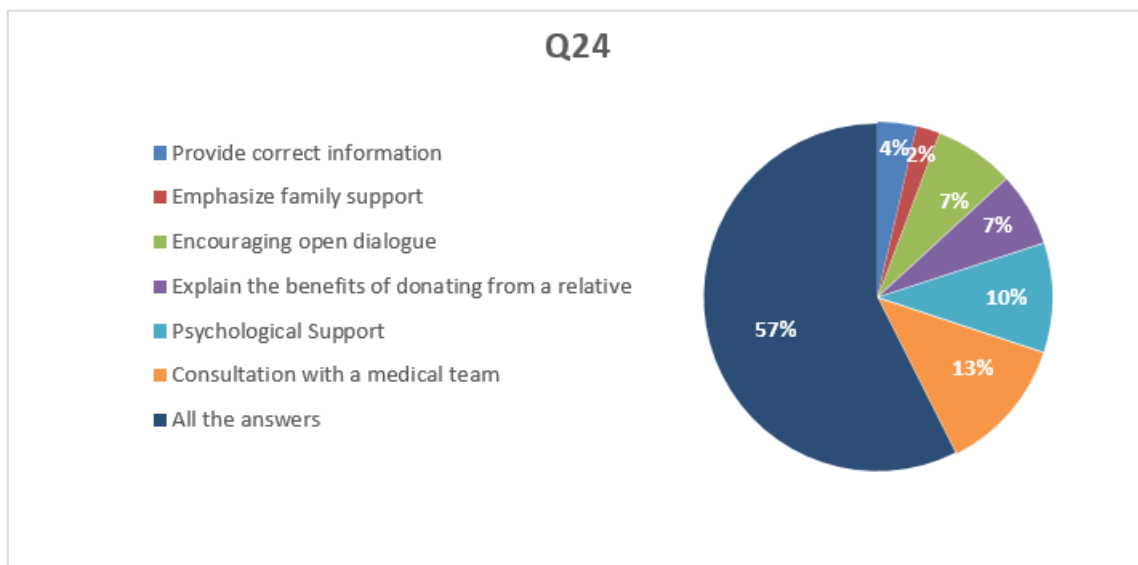


Fig. 21: The study sample's response to the question No. 24

From the figure. 21, The 57% who chose "all answers" reflects the desire to use a comprehensive and integrated approach, in terms of correct information, family support, open dialogue, detailed explanation of the benefits of donation, and Participants answered "Consultation with a medical team" at percentage of 13%, It indicates the importance of trust in the opinion of doctors and the medical team as an important factor in patients' decision-making. psychological support, and medical advice. Providing correct information (4%) and emphasizing family support (2%) received lower percentages, which may indicate that these factors alone may not be sufficient to convince the patient. But it is complementary to the comprehensive approach.

Q25: Do you think that the decision to donate a kidney or part of the liver from relatives is a decision made by the patient or based on the results of the donor's medical examinations?

The response results were as shown in Figure 22.

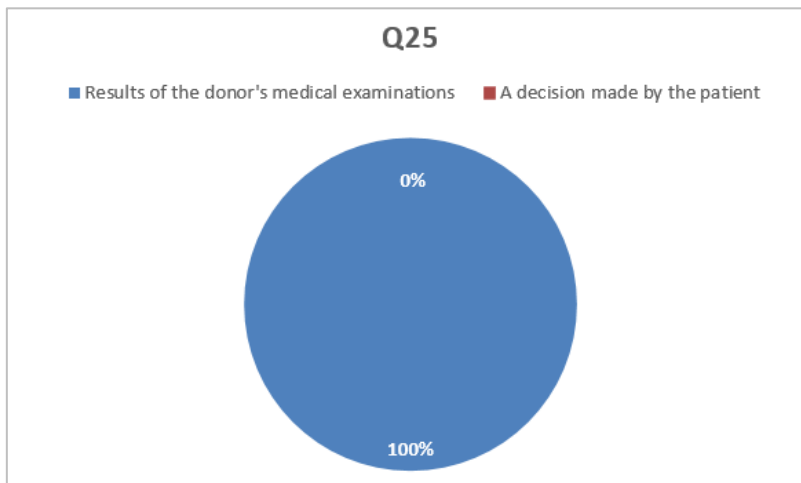


Fig. 22: The study sample’s response to the question No. 25

From the figure. 22, All respondents believe that the decision to donate a kidney or part of the liver from relatives depends entirely on the results of the donor’s medical examinations and not on the decision of the patient himself. This indicates that medical examinations are the basic and first criterion to ensure that the donor is medically qualified to donate and that the process will not harm his health, as the first priority is the medical results. The answer of no, 0%, indicates that the patient may not have the ability to evaluate the donor’s condition objectively, and therefore this matter is left to medical experts, evaluating the condition and the donation process, and having great confidence in the health system.

Q26: Do you support the patient’s decision when he refuses a donation from his relatives?

The response results were as shown in Figure 23.

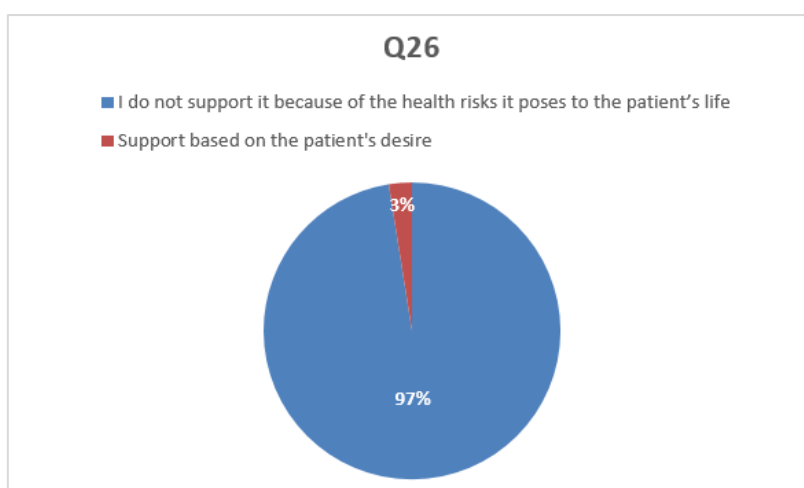


Fig. 23: The study sample’s response to the question No. 26

From the figure. 23, The 97% of respondents who do not support the patient’s decision indicates a high rate of awareness and that refusing to donate could put his life at greater risk,

and the 3% who prefer a balance between personal freedom and medical responsibility, even though the priority is to save the patient's life, even if that means It conflicts with his personal desire.

5.3. Summary of results:

Based on what was discussed in this study and a review of previous literature, we can conclude the following results:

- The patient's rejection of his relatives' decision to donate puts his condition at risk and puts him on waiting lists, causing serious complications.
- Several factors can influence the decision to donate, and they are interrelated and inseparable factors, represented in order by psychological factors, the psychological state of the patient, medical and educational factors, and personal, religious and cultural factors.
- Medical examinations constitute a basic standard for the donation process to check the compatibility between the donor and the recipient.
- Health care providers play a prominent role in donation processes through community trust in the health system and work to educate and raise awareness through interactive means.
- Using a comprehensive approach to address the patient's decision through a pre-donation, during-donation, and post-donation plan with the participation of psychologists, social workers, doctors, community, and religious counselors. Using this combination gives greater opportunities to motivate donation.
- Addressing the patient's future concerns by adopting and presenting a post-donation plan and making reparation to the donor financially and professionally through insurance plans constitutes an important factor for the patient to make decisions and remove fears of remorse and indebtedness.
- Stimulating moral values such as altruism and social responsibility eliminates emotional factors for the patient such as feelings of remorse and indebtedness to the donor.
- Health care providers adopting interactive activities between family members and rewarding and praising those who provide moral or psychological support to the patient enhances family cohesion and reduces emotional stress.
- Rumors and the abundance of opinions and advice from friends and community members constitute negative factors on the patient's decision and cause him psychological pressure and imbalance in decision-making, which requires health care providers to control and organize thoughtful dialogues with the patient.

- Awareness and education through the media and interactive educational sessions via video or charts for the patient is important to increase his awareness and understanding of his health condition and to make informed decisions based on knowledge.

6. Conclusion:

Cases of a patient's refusal to donate from his relatives exist and the health sector suffers from them, as the patient believes that putting him on the waiting list is the only solution to increase the chance of finding a kidney and having it transplanted for him. On the other hand, we believe that a patient who has family who wants to donate to him a kidney or part of the liver at the same time who refuses this donation is something that must be addressed with awareness because the patient has made the wrong decision. There are many factors affecting his decision, which requires addressing these factors and influences and urging him to agree to donate from his relatives so that the long wait will not be a reason for him not being eligible for an organ transplant. What is meant is because of the infections that may occur to him while he is on the waiting list.

Some cases put patients on waiting lists to obtain donors, and they are patients who have problems with high antibodies and it is difficult for their relatives to donate to them, and patients who have genetic diseases also make it difficult for their relatives to donate to them, or who do not have relatives to donate to them.

The long waiting process for patients who have relatives to donate to him and refuse to do so, causes harm to themselves and causes infections that may occur to them while waiting on the waiting list, and also puts pressure on the health system that is working to receive new cases.

7. Recommendations:

Based on what was presented in the study, the following is recommended:

- Using a comprehensive approach to address factors affecting patients collectively generates positive results in patient decision-making.
- Making a plan, presenting it to the patient before donating, during donation, and after donating, and discussing it with the patient and his family, gives confidence and motivation in decision-making.
- Addressing future concerns of the patient and donor through insurance plans and professional insurance encourages the patient and donor to make the decision.

- Working to promote moral and religious values such as altruism, family moral duty, social solidarity, and the values of the Islamic religion in the Almighty's saying, "Whoever saves a life, it is as if he saved all of humanity," helps free the patient from remorse, indebtedness to the donor, and torment of conscience.
- Spreading education and awareness among health care providers while involving civil society organizations, associations, and workshops in places that suffer from a decrease in donations.
- Involving a psychologist, social worker, and religious guide in the process is important.

8. Ethical Considerations:

Ethical considerations rigorously addressed throughout the research, ensuring confidentiality, informed consent, and sensitivity to participants' autonomy. By elucidating the complexities of this issue from multiple vantage points. It is also emphasized that this Study did not include experiments on humans or animals.

9. References:

- Abdulrahman A. Aljumah, et al (2018) The Saudi Association for the Study of Liver Diseases and Transplantation clinical practice guidelines for management of autoimmune hepatitis, Saudi J Gastroenterol. 2018 Nov; 24(Suppl 1): S1–S20.doi: 10.4103/sjg.SJG_159_18
- Abu Al-Qasim, Mabrouka Masoud (2015), Psychological and Social Needs of Kidney Failure Patients in the City of Sebha, Sebha University.
- Adrop, Shatha Muhammad Hashem Saleh (2017), Optimism and its relationship to quality of life among patients with kidney failure in Kassala State, Al-Nilein University.
- Aijing Luo, et al (2022) A Qualitative Study in Family Units on Organ Donation: Attitude, Influencing Factors and Communication Patterns, Transplant International, Transpl Int, 23 March 2022, <https://doi.org/10.3389/ti.2022.10411>
- Alessa MY, Albedaiwi MS, Al Mousa AM, Alhassan GM, Alnefaie BT. (2023). Knowledge and attitude of organ donation in the eastern region of Saudi Arabia and the influence of social media campaigns: a cross-sectional study. *Anna Med Surg*; 85: 394–401. doi: 10.1097/MS9.0000000000000258
- Al-Hassan, Israa Yahya Muhammad (2021) Positive thinking and its relationship to anxiety and depression disorders among patients with kidney failure in Khartoum State, Al-Nilein University.

- Al-Sejari, Maha. (2018). The extent of acceptance, knowledge, and informational sources about organ donation among Kuwaitis: a socio-cultural study *Annals of Arts & Social Sciences / Hawliyyat Kulliyat al-adab*, 2018, Vol 39, Issue 506, p5
- Alvaro, E., Siegel, J., & Jones, S. (2011). Increasing organ donor registration rates by providing an immediate and complete registration opportunity: An experimental assessment of the IIFF model. *Psychology, Health & Medicine*, 16(6), 686–694.
<https://doi.org/10.1080/13548506.2011.564353>
- Birtan D., Arslantas M. K., Dincer P. C., Altun G. T., Bilgili B., Ucar F. B., et al.. (2017). Effect of interviews done by intensive care physicians on organ donation. *Transplant. Proc.* 49, 396–398. doi: 10.1016/j.transproceed.2017.01.030,
- Carola V, Morale C, Vincenzo C, Cecchi V, Errico L and Nicolais G (2023) Organ donation: psychosocial factors of the decision-making process. *Front. Psychol.* 14:1111328. doi: 10.3389/fpsyg.2023.1111328
- Chadha R., Patel D., Bhangui P., et al. (2022). Optimal anesthetic conduct regarding immediate and short-term outcomes after liver transplantation – systematic review of the literature and expert panel recommendations. *Clin Transplan.t* e14613
- Deepak Saxena, et al (2023) Challenges and Motivators to Organ Donation: A Qualitative Exploratory Study in Gujarat, India: A Qualitative Study, *Journal List, National Library of Medicine, National Center for Biotechnology Information*, Published online 2023 Jan 13. doi: [10.2147/IJGM.S393240](https://doi.org/10.2147/IJGM.S393240).
- DIB, L. A. D. R., ARAÚJO, C., ANDRADE, J. D., & SILVA, M. F. D.. (2024). Accepting or refusing a donated organ for transplant: Dr. Jonas's dilemma. *Cadernos EBAP.EBR*, 22(1), e2023–0054. <https://doi.org/10.1590/1679-395120230051>
- Devitt, J., Anderson, K., Cunningham, J., Preece, C., Snelling, P., & Cass, A. (2017). Difficult conversations: Australian Indigenous patients' views on kidney transplantation. *BMC nephrology*, 18(1), 310. <https://doi.org/10.1186/s12882-017-0726-z>
- Goldaracena N., Spetzler V.N., Marquez M., et al. (2015). Live donor liver transplantation: a valid alternative for critically ill patients suffering from acute liver failure. *Am J Transplant.*;15:1591–1597.
- Irena Milaniak, et al (2020) Factors Influencing Decision Making about Living Donation among Medical Students, July 2020, DOI: 10.1016/j.transproceed.2020.03.049.

- Khaleghi, P. A. D. M. (2021) "The Effect of Emotional Disclosure by Writing on the Depression of Hemodialysis Patients in Iran: A Randomized Clinical Trial", *J Caring Sci*, 10(4).
- Khalid F, Khalid AB, Muneeb D, Shabir A, Fayyaz D, Khan M. (2019). Level of knowledge and attitude regarding organ donation: a community-based study from Karachi, Pakistan. *BMC Res Notes*; 12:1–5. doi: 10.1186/s13104-019-4345-6
- Moran J, Miller C. (2021). Psychological aspects of care in living donor kidney transplantation. In: Avrami C, Liossatu A, Ho TM, editors. *Current Strategies for Living Donor Kidney Transplantation* [Internet]. Hergiswil (CH): European Dialysis and Transplant Nurses Association/European Renal Care Association (EDTNA/ERCA). CHAPTER 6.
- Ralph, A. F., Butow, P., Hanson, C. S., Chadban, S. J., Chapman, J. R., Craig, J. C., Kanellis, J., Luxton, G., & Tong, A. (2017). Donor and Recipient Views on Their Relationship in Living Kidney Donation: Thematic Synthesis of Qualitative Studies. *American journal of kidney diseases: the official journal of the National Kidney Foundation*, 69(5), 602–616. <https://doi.org/10.1053/j.ajkd.2016.09.017>
- Raziyeh Sadat Bahador, et al (2022) Concerns and Challenges of Living Donors When Making Decisions on Organ Donation: A Qualitative Study, *Journal List, National Library of Medicine, National Center for Biotechnology Information*, Published online 2022 Mar 14. doi: 10.4103/ijnmr.ijnmr_158_21.
- Rodrigue JR, Cornell DL, Kaplan B, Howard RJ. Patients' (2008). Willingness to Talk to others about Living Kidney Donation. *Progress in Transplantation*; 18(1):25-31. doi:10.1177/152692480801800107
- Rolker H, et al. (2022). Knowledge, attitudes and willingness to organ donation among the general public: a cross-sectional survey in China. *BMC Public Health*; 22:1–11. doi: 10.1186/s12889-022-13173-1
- Ruck, J. M., Van Pilsum Rasmussen, S. E., Henderson, M. L., Massie, A. B., & Segev, D. L. (2018). Interviews of living kidney donors to assess donation-related concerns and information-gathering practices. *BMC nephrology*, 19(1), 130. <https://doi.org/10.1186/s12882-018-0935-0>
- Salomon DR, Langnas AN, Reed AI, et al. (2015). AST/ASTS workshop on increasing organ donation in the United States: creating an "arc of change" from removing disincentives to testing incentives. *Am J Transplant*; 15(5):1173-1179.

- Sami Alobaidi, (2021) Knowledge of Chronic Kidney Disease Among the Population of Saudi Arabia Evaluated Using a Validated Questionnaire: A Cross-Sectional Study, National Library of Medicine, National Center for Biotechnology Information, Patient Preference Adherence. 2021; 15: 1281–1288, Published online 2021 Jun 14. doi: 10.2147/PPA.S315369.
- Siminoff L. A., Alolod G. P., Wilson-Genderson M., Yuen E. Y., Traino H. M. (2017). A comparison of request process and outcomes in donation after cardiac death and donation after brain death: results from a national study. *Am. J. Transplant.* 17, 1278–1285. 10.1111/ajt.14084
- Sque, M., Walker, W., Long-Sutehall, T., Morgan, M., Randhawa, G., & Rodney, A. (2018). Bereaved donor families' experiences of organ and tissue donation, and perceived influences on their decision making. *Journal of critical care*, 45, 82–89. <https://doi.org/10.1016/j.jcrc.2018.01.002>
- Thamer Hadim et al (2018) Assessment of the level of willingness to donate liver and kidney among the general population in Saudi Arabia, *Journal List, National Library of Medicine, National Center for Biotechnology Information, January 2022, 20(13) DOI: 10.5742/MEWFM.2023.95251497I*
- Thys, K., Schwering, K. L., Siebelink, M., Dobbels, F., Borry, P., Schotsmans, P., Aujoulat, I., & ELPAT Pediatric Organ Donation and Transplantation Working Group (2015). Psychosocial impact of pediatric living-donor kidney and liver transplantation on recipients, donors, and the family: a systematic review. *Transplant international: official journal of the European Society for Organ Transplantation*, 28(3), 270–280. <https://doi.org/10.1111/tri.12481>
- Uehara, Minako; Hayashi, Akiko; Murai, Toshiya; Noma, Shun'ichi. (2011). Psychological Factors Influencing Donors' Decision-Making Pattern in Living-Donor Liver Transplantation. *Transplantation* 92(8): p 936-942, October 27. | DOI: 10.1097/TP.0b013e31822e0bb5
- Valeria, et. al, (2023). Organ donation: psychosocial factors of the decision-making process. *Frontiers in Psychology*. doi.org/10.3389/fpsyg.2023.1111328
- Van Rijn R., Schurink I.J., de Vries Y., et al. (2021). Hypothermic machine perfusion in liver transplantation – a randomized trial. *N Engl J Med*; 384:1391–1401.

- Warejko JK, Tan W, Daga A, Schapiro D, Lawson JA, Shril S, et al. (2018). Whole exome sequencing of patients with steroidresistant nephrotic syndrome. *Clin J Am Soc Nephrol*; 13(1):53-62. <https://doi.org/10.2215/CJN.04120417>
- Waterman, A. D., Stanley, S. L., Covelli, T., Hazel, E., Hong, B. A., & Brennan, D. C. (2006). Living donation decision making: recipients' concerns and educational needs. *Progress in transplantation (Aliso Viejo, Calif.)*, 16(1), 17–23. <https://doi.org/10.1177/152692480601600105>
- Waterman, A. D., Barrett, A. C., & Stanley, S. L. (2008). Optimal transplant education for recipients to increase pursuit of living donation. *Progress in transplantation (Aliso Viejo, Calif.)*, 18(1), 55–62. <https://doi.org/10.1177/152692480801800111>
- Zuchowski, M., Mamode, N., Draper, H., Gogalniceanu, P., Norton, S., Chilcot, J., Clarke, A., Williams, L., Auburn, T., & Maple, H. (2021). Experiences of completed and withdrawn unspecified kidney donor candidates in the United Kingdom: An inductive thematic analysis from the BOUNd study. *British journal of health psychology*, 26(3), 958–976. <https://doi.org/10.1111/bjhp.12514>

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