



## Original Article

## Knowledge of Nurses Regarding Kidney Donation in Tertiary Care Hospital Lahore

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## ABSTRACT

Globally, the majority of demographic groups are experiencing an increase in mortality rates owing to renal illness and failure. Those who agree to donate a kidney undergo the transplantation procedure. In order to lengthen life and improve quality of life, a healthy organ is transplanted into a recipient with a damaged, failing, or dysfunctional organ. **Objective:** To assess knowledge of nurses regarding kidney donation in tertiary care hospital. **Methods:** The study was a descriptive cross-sectional study. For collecting data, convenient sampling technique was used. A questionnaire was used to test nurses' knowledge about kidney donation and data were analyzed using SPSS software. **Results:** Most of the people who took the survey, 55%, said they knew little or nothing about kidney donation. 53 % of the patients had negative feelings about kidney organ donation, and there was no link between their knowledge and their feelings in this area. 36.9% of the people who took part in the research said that the fact that the recipient was a family member was the most important thing, and 68.6% said they would rather give their organ to a family member if they needed one. **Conclusions:** This study showed that nurses aren't aware of kidney donation enough and have a negative view of it. Urgent steps must be taken to change the current situation.

## INTRODUCTION

All organ transplants in the United States are performed in small quantities, with the kidney being the most commonly transplanted organ. Donating organs has now become a popular way to save lives and improve the lives of people with a chance of survival. Concerns were raised regarding patient death rates. A family member's donation of one of their kidneys could have saved their lives. Consequently, it became necessary to analyze and describe the kidney donation awareness of the study participants. All organ transplants in the United States are performed in small quantities, with the kidney being the most commonly transplanted organ. Donating organs has now become a popular way to save lives and improve the lives of people

with a chance of survival. Concerns were raised regarding patient death rates. A family member's donation of one of their kidneys could have saved their lives. Consequently, it became necessary to analyze and describe the kidney donation awareness of the study participants [1]. Chronic renal failure is characterized by a loss of the kidneys' ability to regulate endocrine and excretory activities, as well as a reduction in their ability to filter blood [2]. Peritoneal dialysis and hemodialysis are used to treat chronic renal insufficiency while the patient awaits a kidney transplant from a living or deceased donor. However, kidney donation is a popular treatment option for a variety of diseases. More individuals are on the waiting list than there are organs

available for donation [3]. This surgery saves the lives of millions of individuals throughout the world by grafting an organ or part of an organ onto another individual. The process of kidney donation is contingent on the manner in which it is presented to families and the willingness of those families to consent [4]. A number of different factors contribute to the formation of the family's opinion regarding this matter. The donation of organs is met with a positive attitude and views. Positive beliefs and attitudes, for instance, might include the fact that the deceased person's family was aware of their wishes regarding kidney donation. Donating a kidney, being in possession of a donor card, and demonstrating an interest in this field [5]. Studies have shown that a person's attitude toward kidney donation can have an effect on whether or not they are willing to donate a kidney. This, along with the fact that they are knowledgeable, and the fact that they are religious, all contribute to their desire to donate organs after they pass away [6]. It is essential for medical teams to have adequate knowledge and a positive attitude toward kidney donation in order to accelerate the rate of organ donation [7]. Religious beliefs are another factor that can shape a person's perspective on organ donation. Several different faiths have put up resistance [8]. In England, the majority of kidney donations are overseen by registered nurses, and finding donors who are a good match is also considered to be a nursing responsibility. As a result, registered nurses are required to be compensated for the significant role that they play in promoting organ donation. Instruction required to comprehend the process in order to contribute to the satisfaction of the donors and their families [9]. On the other hand, claimed that a lack of understanding of the concept is one of the issues that prevents kidney transplantation. Donating a kidney is a practice that is discouraged among people. Many people, for instance, are led astray into believing that donating money will help them that their kidney will be taken out of their bodies entirely [10]. Although there are some people who are worried that their doctors will remove their kidney too soon, giving the impression that being a donor has no direct benefits, there are others who do not have these concerns [11]. In addition to all of these factors to take into account, the process is also heavily impacted by religious principles and beliefs. The act of determining whether or not one will donate an organ to a recipient. It is necessary for the nurses to acquire knowledge regarding the experiences of potential donors. The donor receives important care and treatment before, during, and after the donation process. A strong emphasis should also be placed on educational and communication components. The purpose of this research is to gauge nurses' knowledge regarding kidney transplantation. The purpose of this study is to analyses

nurses' awareness, toward kidney donation, as well as to look into the factors that influence their desire or opposition to donate a kidney. The students' responses will be compared to those of the general population, which is another goal that will be achieved.

## METHODS

This research was conducted in a descriptive cross-sectional study design at the University of Lahore Teaching Hospital, Lahore. The study population for this research was staff nurses working in the Medical ICU, Surgical ICU, and Dialysis wards, who were willing to participate. The data was collected using a convenient sampling technique, and the sample size was calculated to be 109 using the solvin's formula. Nurses present during the data collection were given questionnaires, which took approximately 10-15 minutes to fill. IBM SPSS Statistics version 22 was used to analyze the data, and frequencies and %ages were used to present the variables. Nurses with an MSN degree or who had already taken training related to kidney transplantation and dialysis were excluded from the study.

## RESULTS

The data was analyzed by questionnaire and results are interpreted with the frequency and percentages. Table 1 depict that according to the sex majority of nurses were female 82(74%) and 28(25.5%) males. Age of the nurses 20-25 have 49 (44.5%) and 26-30 have 31 (28.2%) and 31-35 have 10 (9.1%) and 36-40 have 20 (18.2%). Then most of nurses were qualified as general nursing 41 (37.3%) and BScN 48 (43.6%) with clinical experience 1 to 5 year 44 (40.0%) and 6 to 11 year 45 (40.9%) and 11 to 15 year 21 (19.1%). Nurses working in surgical ICU 22 (20.0%), medical ICU 34 (30.9%), dialysis 54 (49.1%) nurses and work in other special areas of hospital wards 99 (73.9%).

**Table 1:** Basic Demographics

Demographic profile	Frequency (%)
<b>Gender</b>	
Male	28 (25.5)
Female	82 (74.5)
<b>Professional Qualification</b>	
General nursing	52 (47.3)
Bachelor in nursing	48 (43.6)
Master in nursing	15 (12.5)
<b>Age</b>	
20-25 years	49 (44.5)
26-30 years	31 (28.2)
31-35 years	20 (18.2)
36-40 years	10 (9.1)
<b>Total years of experience in a critical area</b>	
1-5 year	44 (40)
6-10 year	45 (40.9)
11-15 year	21 (19.1)

Demographic profile	Frequency (%)
<b>Working unit</b>	
Surgical ICU	22 (20)
Medical ICU	34 (30.9)
Dialysis	54 (49.1)

The mean of the sum of attitudes scores determined attitudes: numbers below the mean were negative, while scores above the mean were positive. 84% of participants wanted to donate organs after death. Although most participants wanted to donate their organs, 43% had an unfavorable opinion toward organ donation, 39.1% had a positive attitude, and the nurses had moderate knowledge (53%). Results show that most participants dislike kidney donation (63%).

**Table 2:** Knowledge related questions among nurses regarding kidney donation

Description	True	False
Kidney can be donated from brain-dead patients.	48(43.6%)	62(56.4%)
Hepatitis B and C carriers can donate all of their solid organs.	50(45.5%)	60(54.5%)
Failure kidneys can be replaced by another healthy kidney.	39(35.5%)	71(64.5%)
The kidney is the most commonly donated organ.	47(42.7%)	63(57.3%)
A person can live with one kidney.	44(40.0%)	66(60.0%)
The only organs that can be donated by a live donor are kidney, pancreas and liver.	41(37.3%)	69(62.7%)
Kidney donor must be of the same ethnicity as the recipient.	48(43.6%)	62(56.4%)
Sixty-year-old male should kidney donate with malignant lung cancer and hypertension.	43(39.1%)	67(60.9%)
Only young people can donate kidney after death.	73(66.4%)	37(33.6%)
It is not necessary for person that must be on dialysis while waiting for renal donation	43(39.1%)	67(60.9%)

**Table 3:** Student responses on kidney donation

Questions	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree
I am willing to donate a kidney	45 (40.9%)	29 (26.4%)	11 (10.0%)	10 (9.1%)	15 (13.6%)
Renal donation might change my body after transplant	39 (35.5%)	32 (29.1%)	16 (14.5%)	11 (10.0%)	12 (10.9%)
Should kidney donation be promoted	44 (40.0%)	21 (19.1%)	20 (18.2%)	7 (6.4%)	18 (16.4%)
I feel uncomfortable to think or talk about kidney donation	43 (39.1%)	17 (15.5%)	23 (20.9%)	14 (12.7%)	13 (11.8%)
Problems that may occur after transplant prevent me from donating	32 (29%)	20 (18.2%)	15 (13.6%)	24 (21.8%)	19 (17.3%)
A person from one race can donate a kidney to another race	31 (28.2%)	22 (20.0%)	20 (18.2%)	11 (10.0%)	26 (23.6%)
I am competent and have adequate knowledge in counseling patients on issues related to kidney donation	34 (30.9%)	22 (20.0%)	23 (20.9%)	14 (12.7%)	17 (15.5%)
I believe I have learnt enough about kidney donation from the educational curriculum	26 (23%)	29 (26.4%)	24 (21.8%)	10 (9.1%)	21 (19.1%)
I think donating one's organs adds meaning to one's life	30 (27.3%)	23 (20.9%)	26 (23.6%)	16 (14.5%)	15 (13.6%)
The donor's and recipient's blood group MUST be identical	34 (30.9%)	18 (16.4%)	32 (29.1%)	9 (8.2%)	17 (15.5%)

## DISCUSSION

Lahore Teaching Hospital nurses participated in this study. The study assessed nurses' kidney donation knowledge and attitudes. 44.5% of hospital patients were 26–30 years old.

65% were married, and 52.3% had a general nursing certificate. 39% of nurses had over ten years of experience, and 49.1% worked in dialysis units. 14.5% of nurses had good kidney donation awareness, 35.5% had moderate knowledge, and 50.0% had inadequate knowledge. 51% of individuals were unaware about kidney organ donation. In Africa, 44.8% of 409 medical students had sufficient understanding of organ donation, while 40.1% had insufficient knowledge [12]. Nurses' kidney donation opinions were 14.7% positive, 53.2% moderate, and 43.1% negative. These studies found that 64% of nurses oppose brain-dead kidney donation, while 48.6% support it. 84% of members would give their organs after death. These findings are consistent with a study on 30 volunteers at a health fair at the University of California, San Francisco (UCSF) Health Science campus in Africa to assess and compare recruitment barriers to deceased donor registration efforts, which found a high willingness to donate an organ after death (83%) [11]. Nurses' kidney donation opinions were 14.7% positive, 53.2% moderate, and 43.1% negative. These studies found that 64% of nurses oppose brain-dead kidney donation, while 48.6% support it. 84% of members would give their organs after death. These findings are consistent with a study on 30 volunteers at a health fair at the University of California, San Francisco (UCSF) Health Science campus in Africa to assess and compare recruitment barriers to deceased donor registration efforts, which found a high willingness to donate an organ after death (83%) [13]. The overall positive attitude was only present in 37% of the students in this study. This is significantly lower than reports from Italy (91%), Brazil (69%), Germany (55–70%), Pakistan (62%), Turkey (59%), and China (50%). Only 36% of medical students had adequate knowledge about kidney donation, which is also low when compared to other countries such as Pakistan (65%), and Nigeria (65%) [14]. This specifies an appropriate state for identifying various factors contributing to nurses' negative attitudes and lack of knowledge. There was no significant improvement in senior medical students' attitudes toward kidney donation, despite the fact that knowledge improved with seniority and was significantly associated with a better attitude. This suggests that other psychosocial and demographic factors influence attitudes toward organ donation [15]. Nurses' attitudes toward kidney donation are 40.9% negative, 26.4% moderate, and 22.6% positive. 36.9% of individuals and 68.6% of family members were willing to donate a kidney to relatives, although 57.8% were concerned about health risks. These data support the link between organ donation and deceased organ donor families [16]. However, 63% of participants are against organ donation. This is important because future nurses must encourage kidney

donation. According to religion, nurses have a sufficient attitude toward kidney donation, with 26.4% having a positive attitude, 32.6% having a moderate attitude, and 42.9% having a negative attitude. The impact of religion on attitudes toward kidney donation is debatable. Belief in God and the afterlife has been linked to a negative attitude toward kidney and organ donation. A survey of Swiss-Italian young adults, on the other hand, found that faith in God had a positive impact on their attitude toward kidney donation. According to a report from the United Kingdom (UK), there is no significant relationship between religion and attitude toward kidney donation. Some authors reported that different religious beliefs had different effects on attitudes toward kidney donation [17]. The kidney is the most commonly donated organ in our study. The positive attitude of nurses was (47%) and the negative attitude of nurses was (47%). Similarly, in another study conducted by Ali *et al.* on medical students' knowledge and ethical perceptions of organ donation, it was discovered that the kidney was the most commonly donated organ, followed by blood, cornea, and heart [18]. In our study, knowledge of kidney donation was highest (94%), followed by heart (82%), liver (78%), cornea (59%), lungs (57%), skin (34%), and pancreas (34%). Females participated significantly more than males in our study. Females account for 74.5% of participants, while males account for 25%. This finding is consistent with studies on European medical students conducted by Burra *et al.* and Mekahli *et al.* which found that females had higher positive attitudes than males due to higher emotional values [19, 20].

## CONCLUSIONS

The study found that nursing students at the University of Lahore had a good knowledge and positive attitude towards kidney donation, while practicing nurses had limited knowledge and a negative attitude. The study emphasized the importance of structured teaching programs to increase knowledge and promote kidney donation in the community.

## Conflicts of Interest

The authors declare no conflict of interest.

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