Peertechz

Archives of Nursing Practice and Care
submitpaper@peertechz.com
CLINICAL GROUP
ARCHIVES OF Nursing Practice and Care OPEN ACCESS JOURNAL
ISSN: 2581-4265 DOI: https://dx.doi.org/10.17352/anpc

Research Article

The Effect of Anxiety, Depression, Social Support and Clinical Features on Hope in Kidney and Liver Transplant Recipients

Esra Şeker[1], Gülsüm Nihal Çürük[2]* and Özgül Karayurt[2]

[1]Health Sciences University, Izmir Tepecik Education and Training Research Hospital, Anesthesia Intensive Care Unit, Izmir, Turkey

[2]Nursing Department, İzmir University of Economics, İzmir, Turkey

Received: 07 January, 2025
Accepted: 10 February, 2025
Published: 11 February, 2025

***Corresponding author:** Gülsüm Nihal Çürük, Nursing Department, İzmir University of Economics, İzmir, Turkey, E-mail: gulsum.nihal@ieu.edu.tr

Keywords: Kidney and liver transplant recipients; Anxiety; Depression; Social Support; Hope; Nurse

https://www.medsciencegroup.us

Check for updates

Abstract

Aim: This study aimed to examine the effects of anxiety, depression, social support, and clinical features on hope among kidney and liver transplant recipients.

Method: This study used a descriptive cross-sectional design, and the study sample included 192 kidney (n:100) and liver (n:92) transplant recipients. A sociodemographic and clinical characteristics form, The Hospital Anxiety and Depression Scale, The Perceived Available Support Scale, and The Herth Hope Index were used to collect data. Data were collected through face-to-face interviews and patient records between 15 August and 30 December 2020. Numbers, percentages, mean values, and multiple regression analyses were used to evaluate data.

Results: The mean score on The Perceived Available Support Scale was a significant, positive predictor of the mean score on The Herth Hope Index (β = 0.386, SE = 0.056; $p < 0.001$), but the mean score on The Hospital Anxiety and Depression Scale was a significant, negative predictor of the mean score on The Herth Hope Index (β = -0.390, SE = 0.115; $p < 0.001$). The time elapsing after transplantation (β = -0.219, SE = 0.009, $p = 0.006$) and transplants from cadavers (β = -0.201, SE = 0.886; $p = 0.004$) were also significant, negative predictors of hope in kidney and liver transplant recipients.

Conclusion: The results showed that a significant portion of the patients were at risk of anxiety and depression and had moderate social support after transplantation. Besides, the level of anxiety did not affect hope and as social support increased, so did hope.

Introduction

Kidney and liver transplantations are important treatment options that increase life expectancy and the quality of life in patients with end-stage kidney and liver failure [1,2]. Kidney and liver transplantations are the most frequently performed transplantations, and of all transplants, 40.2% are kidney transplants and 19.8% are liver transplants [3]. In Turkey, a total of 5.270 organ transplants were carried out in 2022, of which 3.621 were kidney transplants and 1.610 were liver transplants [4].

Patients experience worries about surgery, surgical outcomes, and organ rejection during the transplantation process. It has been reported that 63% of organ transplant recipients have anxiety, which increases the risk of mortality by twofold in the first five years of transplantation [5]. Rehospitalizations, difficulty in adaptation to immunosuppressive treatment, the risk of infection, and organ rejection can cause anxiety and depression in patients. Besides, changes in the roles of family members, difficulties in daily activities due to loss of physical functions and loss of job, obligation to have regular physicals, and treatment costs lead to anxiety and depression [3,5,6].

Transplantation is a source of hope for patients with end-stage kidney and liver failure. It is important to determine the levels of hope, treat health problems and manage symptoms appropriately to reduce morbidity and mortality in organ

Citation: Şeker E, Çürük GN, Karayurt Ö. The Effect of Anxiety, Depression, Social Support and Clinical Features on Hope in Kidney and Liver Transplant Recipients. Arch Nurs Pract Care. 2025;11(1):001-007. Available from: https://dx.doi.org/10.17352/anpc.000067

transplant patients [1,2,7,8]. Uncertainty about the end-stage disease in kidney and liver transplant recipients has been shown to be associated with hope and depression symptoms. Posttransplant hopelessness usually appears 3-6 months after transplantation and 72% of kidney transplant recipients experience hopelessness [9,10].

Social support plays a crucial role in motivation for positive health behavior, relief of transplantation-related anxiety and depression, and boost of hope. Although patients have physical recovery after organ transplantation, they need social support to cope with their fears and worries [2,11]. It has been shown in the literature that social support from family members, friends, religious leaders, colleagues, and health professionals has a positive effect on recovery and mental health in posttransplant patients [12,13].

Nurses play an important role in the prevention, early detection, and elimination of the problems likely to appear during and after the transplantation process. They should be able to evaluate the information needs of patients and their families, follow psychosocial changes in patients, and determine anxiety and depression levels and problems both during and after this process. They should fulfill information needs of patients and their families, encourage them to express their feelings, provide psychological, physical and social support to help them acquire skills for management of their new lives and activate the sources of support to increase the levels of hope [11,13,14].

Aim of the study

There have not been any studies about the effect of anxiety, depression, and social support on the levels of hope in kidney and liver transplant recipients. Therefore, the present study aimed to examine the effect of anxiety, depression, and social support on the levels of hope in kidney and liver transplant recipients. The results of the study will contribute to designing nursing interventions and improving the quality of nursing care for kidney and liver transplant recipients.

Materials and methods

Design and setting

This descriptive, cross-sectional study was conducted in the organ transplantation and general surgery outpatient clinics of a İzmir Tepecik Education and Research Hospital and the kidney and liver transplantation outpatient clinics of a private hospital in Izmir.

Participants and sample

The outpatient clinics of the İzmir Tepecik Education and Research Hospital and the outpatient clinics of the private hospital where the present study was conducted dispense healthcare to 2500 adult patients on average and about 2000 adult patients per year respectively. The power of the study was calculated using data collected in the present study and G*Power 3.1.9.6 and it was found to be 98.7% (1-β). Random sampling was utilized and the study sample included 192 kidney (n:100) and liver (n:92) transplant recipients fulfilling the inclusion criteria of the study between 15 August and 30 December 2020.

Inclusion criteria were: over 18 years of age, speaking and writing Turkish, volunteering for the study, and at least 3 months post-transplant (post-transplant hopelessness usually appears 3-6 months after transplantation). Study exclusion criteria; diagnosis of psychiatric illness, re-transplantation, multi-organ transplantation, hospitalisation.

Data collection tools

Data were gathered from the hospital records and the patients presenting to outpatient clinics of the hospitals face to face by using a sociodemographic and clinical features form, The Hospital Anxiety and Depression Scale (HADS), The Perceived Available Support Scale (PASS) and The Herth Hope Index (HHI).

Sociodemographic and clinical features form

The sociodemographic and clinical features form was prepared by the researchers in light of the literature and it is composed of 15 questions about age, gender, education, marital status, employment status, income, health insurance, etiology of kidney transplantation, etiology of liver transplantation, types of donors, relation with the donor, presence of chronic diseases, immunosuppressants used, type of the transplanted organ and time elapsing after transplantation.

The hospital anxiety and depression scale

The HADS was developed by Zigmond and Snaith in 1983 to determine the risk of anxiety and depression. It is a four-point self-report Likert scale composed of 14 questions, of which seven are about anxiety and seven are about depression. The responses are scored between zero and three. The lowest and highest scores to obtain from the scale are zero and 21 respectively. The aim of the HADS is not to diagnose anxiety and depression but to screen and determine the risk of anxiety and depression quickly in patients with physical conditions. The validity and reliability of the scale for the Turkish population were tested by Aydemir in 1997. The cut-off point for the Turkish version of the scale was reported to be 10 for the subscale of anxiety and seven for the subscale of depression. Cronbach's alpha for the Turkish version was reported to be 0.85 for anxiety and 0.77 for depression [15]. In the present study, Cronbach's alpha was found to be 0.78 for anxiety and 0.75 for depression.

The Perceived Available Support Scale (PASS)

The PASS was developed by Schulz and Schwarzer in 2003. It is composed of eight items and two subscales: emotional support and instrumental support. It is a four-point Likert scale and one corresponds to not at all true and four completely true. Cronbach's alpha for the PASS was reported to be 0.83. The lowest and highest scores on the scale are eight and 32 respectively. Higher scores show high support. The validity and reliability of the PASS for the Turkish population were tested

Citation: Şeker E, Çürük GN, Karayurt Ö. The Effect of Anxiety, Depression, Social Support and Clinical Features on Hope in Kidney and Liver Transplant Recipients. Arch Nurs Pract Care. 2025;11(1):001-007. Available from: https://dx.doi.org/10.17352/anpc.000067

by Kapıkıran and Acun in 2010. Cronbach's alpha and the test-retest correlation coefficient for the Turkish version were reported to be 0.88 and 0.77 respectively [16]. In the present study, Cronbach's alpha for the scale was found to be 0.94.

The Herth Hope Index

The HHI was created in 1992 to evaluate the levels of hope in general. The index is a 12-item, four-point Likert scale: one corresponds to not at all true, two is rarely true, three is sometimes true, and four is always true. The index has three subscales: temporality and future, positive readiness and expectancy, and interconnectedness. Each subscale comprises four items. The total score on the scale ranges from 12 to 48. Higher scores indicate higher hope levels. The validity and reliability of the index for the Turkish population were tested by Aslan, et al. in 2003. The validity of the index was evaluated by using linguistic validity and content validity and Cronbach's alpha for the index was reported to be 0.75 [17]. In the current study, Cronbach's alpha for the index was found to be 0.81.

Data analysis

Data analysis was performed with the Statistical Package for Social Sciences, version 24.0 (IBM SPSS Corp., Armonk, NY, USA). The normality of the data was tested with skewness and kurtosis. The predictiveness of the mean scores on the anxiety and depression subscales of the HADS and the PASS for the HHI was determined with multiple linear regression analysis. Before the multiple linear regression analysis, multicollinearity and normality of the data were checked. Variance inflation factor for multicollinearity was found to be lower than 10 and tolerance was found to be over 0.2 in all the regression models.

Ethical considerations

The research was conducted in accordance with the Principles of the Declaration of Helsinki. Before the initiation of the study, ethical approval was obtained from the ethical board of health sciences research at İzmir Tepecik Education and Research Hospital (approval number: B.30.2.İ.E.Ü.S.B.0.05.05-20-063 and approval date: 7 April 2020) and permission was obtained from the administrations of the hospitals where the study was conducted. The patients were given information about the study and assured that their identities would be kept confidential. Oral and written informed consent was obtained from the patients and the study was conducted in accordance with the principles of the Declaration of Helsinki.

Results

Sociodemographic and clinical features of the patients

The mean age of the patients was 48.30 ± 12.83 years. Of all 192 patients, 60.9% were male, 85.4% were married, 64.1% were primary and secondary school graduates, 49.5% were retired, 47.4% had an income equal to their expenses and 89.1% had health insurance. The mean time elapsing after transplantation was 75.22 ± 56.46 months. Besides, 52.1% were kidney transplant recipients, 49.0% had a chronic disease and 65.1% had a live donor (Table 1).

Table 1: Sociodemographic and Clinical Features of the Patients (n = 192).

Features	
Age $\underline{X} \pm SD$ (min-max)	48.30 ± 12.83(18-73)
Gender	n (%)
Male	117 (60,9)
Female	75 (39.1)
Marital Status	
Married	164 (85.4)
Single	28 (14.6)
Education	
Primary school	123 (64.1)
High school	50 (26.0)
University	19 (9.9)
Employment status	
Employed	32 (16.7)
Retired	95 (49.5)
Unemployed	65 (33.9)
Time after organ transplantation (month) X±SD(min-max)	75.22 ± 56.46 (5-316)
Type of organ transplantation	
Kidney	100 (52.1)
Liver	92 (47.9)
Coexisting chronic diseases	
Yes	94 (49.0)
No	98 (51.0)
Donor type	
Live	125 (65.1)
Kidney	62 (49.6)
Liver	63 (50.4)
Cadaver	67 (34.9)
Kidney	38 (56.7)
Liver	29 (43.3)

Mean scores on the hospital anxiety and depression scale, the perceived available support scale and the herth hope index

The mean scores on the anxiety and depression subscales of the HADS were 5.20 ± 3.93 (min-max = 0.00-17.00) and 6.70 ± 4.10 (min-max = 0.00-17.00) respectively. The kidney transplant recipients had the mean scores of 7.78 ± 3.99 (min-max = 0.00-17.00) and 6.33 ± 3.80 (min-max = 0.00-15.00) on anxiety and depression respectively. The liver transplant recipients had the mean scores of 5.53 ± 3.92 (min-max = 0.00-17.00) and 3.97 ± 3.71 (min-max = 0.00-17.00) on anxiety and depression respectively.

The cut-off values for the anxiety and depression subscales were reported to be ten and seven respectively. The patients were divided into two groups based on these cut-off values. Those with the mean score of ten or more were considered at risk of anxiety and those with the mean score of seven or more were considered at risk of depression. Out of all the patients, 18.8% had a risk of anxiety and 26.0% had a risk of depression.

Citation: Şeker E, Çürük GN, Karayurt Ö. The Effect of Anxiety, Depression, Social Support and Clinical Features on Hope in Kidney and Liver Transplant Recipients. Arch Nurs Pract Care. 2025;11(1):001-007. Available from: https://dx.doi.org/10.17352/anpc.000067

Of the kidney transplant recipients, 30.0% had a risk of anxiety and 36.0% had a risk of depression. Of the liver transplant recipients, 14.1% had a risk of anxiety and 15.2% had a risk of depression.

The mean score on the HHI was 39.20 ± 6.09 (min-max = 20.00-48.00) and the mean score on the PASS was 21.88 ± 6.11 (min-max: 10.00-32.00). The kidney transplant recipients had the mean scores of 38.00 ± 6.45 (min-max = 20.00-48.00) and 22.62 ± 6.86 (min-max: 10.00-32.00) on HHI and PASS respectively. The liver transplant recipients had the mean scores of 40.51 ± 5.42 (min-max = 25.00-48.00) and 21.07 ± 5.08 (min-max: 13.00-32.00) on HHI and PASS respectively.

The effect of perceived available social support, anxiety and depression on hope

According to the multiple linear regression analysis, the mean scores on the PASS and the HADS were significantly predictive of the mean score on the HHI ($F = 60.056$, $p < 0.001$) and explained 48.9% of the variance in the mean score on the HHI ($R^2 = 0.489$). The mean score on the PASS was a significant positive predictor of the mean score on the HHI. As the mean score on the PASS increased by one unit, the mean score on the HHI increased by 0.385. The mean score on the HADS was a significant negative predictor of the mean score on the HHI ($\beta = -0.390$; $p < 0.001$). As the mean score on the HADS increased by one unit, the mean score on the HHI decreased by 0.605. Also, the mean score on the anxiety subscale of the HADS was not predictive of the mean score on the HHI (Table 2).

Table 2: The Effect of Social Support, Anxiety and Depression on the Levels of Hope in Kidney and Liver Transplant Recipients.

Independent variable	Unstandardized coefficient		Standardized coefficient	t	p
	B	SE	B		
Constant	34.804	1.538		22.627	< 0.001
Depression	-0.605	0.115	-0.390	-5.280	< 0.001
Anxiety	-0.130	0.105	-0.087	-1.239	0.217
Perceived available social support	0.385	0.056	0.386	6.819	< 0.001

Dependent variable: The Herth Hope Index Durbin-Watson = 1.920; $F = 60.056$, $p < 0.001$; $R = 0.700$; $R^2 = 0.489$; Adjusted $R^2 = 48.1\%$ SE: Standard Error; β: standardized regression coefficient

The effect of the clinical and sociodemographic features on hope in kidney and liver transplant recipients

The model in which clinical features of the kidney and liver transplant recipients were predictive of their mean score on the HHI was statistically significant ($F = 6.078$, $p < 0.001$) and explained 11.5% of the variance in the mean score on the HHI ($R^2 = 0.115$). Time after organ transplantation and donor type (cadaver) had a significant, negative effect on the levels of hope ($\beta = -0.219$, $p = 0.006$; $\beta = -0.201$, $p = 0.004$). As time from organ transplantation increased, the mean score on the HHI decreased by 2.570. The mean HHI score of the recipients whose donor was a cadaver was lower than that of the recipients with a live donor by 2.570. The remaining clinical features were not predictive of the mean score on the HHI (Table 3). Sociodemographic features of the kidney and liver transplant recipients were not significant predictors of the mean score of the HHI and the model was not statistically significant ($F = 1.112$, $p > 0.05$) (Table 4). Therefore, the Durbin-Watson test was not used for R2 autocorrelation and no interpretations of the model were made.

Table 3: The Effect of the Clinical Features on Hope in Kidney and Liver Transplant Recipients.

Independent Variables	Unstandardized coefficient		Standardized coefficient	t	p
	β	SE	β		
Constant	41.647	1.174		35.466	< 0.001
Donor type					
Cadaver	-2.570	0.886	-0.201	-2.900	0.004
Chronic diseases					
No	-0.722	0.867	-0.059	-0.833	0.406
Type of transplanted organ					
Liver	1.257	0.979	0.103	1.284	0.201
Time after transplantation	-0.024	0.009	-0.219	-2.781	0.006

Dependent variable: the Herth Hope Index
Durbin-Watson = 1.567; $F = 6.078$, $p < 0.001$; $R = 0.339$; $R^2 = 0.115$; Adjusted $R^2 = 9.6\%$
SE: Standard Error; β: Standardized Regression Coefficient

Table 4: The Effect of the Socio-demographic Characteristics on Hope in Kidney and Liver Transplant Recipients.

Independent variable	Unstandardized coefficient		Standardized coefficient	t	p
	β	SE	β		
Constant	34.461	3.270		10.539	< 0.001
Age	0.005	0.043	0.011	0.119	0.906
Gender	0.597	1.239	0.048	0.482	0.631
Marital status	-0.753	1.396	-0.044	-0.539	0.590
Education	1.022	0.720	0.112	1.419	0.157
Employment status	-0.162	1.648	-0.010	-0.098	0.922
Income status	1.160	0.645	0.136	1.799	0.074
Health insurance	-1.502	1.568	-0.077	-0.958	0.339

SE: Standard Error; β: Standardized Regression Coefficient

Discussion

The effect of anxiety and depression on the levels of hope

The term of hope has extensively been discussed and its important role in adaptation to disease and adherence to treatment in transplant patients has been emphasized in the literature recently. Nurses should be aware of the meaning of hope for patients, levels of hope, and affecting factors and develop effective nursing interventions to increase the levels of hope. The transplant waiting process is a source of hope for patients waiting for an organ transplant. However, as waiting time and uncertainty increase, the risk of depression increases and hope is reported to decrease [13,18]. In the present study, the risk of depression was found to have a negative effect on hope. In fact, the patients having high depression scores obtained lower scores on hope, which is consistent with the literature. It is reported in the literature that hope and anxiety depression are interrelated: an increase in hope reduces anxiety and depression and an increase in anxiety and depression decreases hope [19]. It is not surprising that the patients at risk of depression had low levels of hope, which is considered

Citation: Şeker E, Çürük GN, Karayurt Ö. The Effect of Anxiety, Depression, Social Support and Clinical Features on Hope in Kidney and Liver Transplant Recipients. Arch Nurs Pract Care. 2025;11(1):001-007. Available from: https://dx.doi.org/10.17352/anpc.000067

a positive feeling about the future and a coping mechanism. Therefore, nurses could raise the patients' hopes and help them minimize their negative feelings.

Anxiety and depression are common problems in organ transplant patients. The risk of organ rejection after transplantation, difficulty in adaptation to drug therapies, the risk of infection, and fear of rehospitalization can cause anxiety and depression. Besides, worries about body image, social isolation, and changes in roles and performance may predispose to anxiety and depression [20]. Several studies on kidney transplant recipients have shown that the risk of anxiety ranges from 10% to 25% and that the risk of depression ranges between 6.8% and 21.6% [21-23]. Müller, et al. [21] using the HADS found that the patients had a mean anxiety score of 5.01 ± 4.04 and that 25.0% of the patients received an anxiety score of 8 or more. They also determined that the patients had a mean depression score of 4.48 ± 2.96 and that 21.6% of the patients received a depression score of 8 or more [21]. Silva, et al. [24] using the HADS also reported that the mean anxiety score was 4.9 ± 3.2 in posttransplant 3-6 months and 5.8 ± 3.7 in posttransplant 12-15 months. They showed that 10.0% and 15.0% of the patients received an anxiety score of 8 or more in posttransplant 3-6 months and 12-15 months respectively. Besides, they discovered that the mean depression score was 3.1 ± 3.4 in posttransplant 3-6 months and 6 ± 3.6 in posttransplant 12-15 months. They showed that 10.0% of the patients received a depression score of 8 in posttransplant 3-6 months and 12-15 months [24]. Weng, et al. [22] reported that the median anxiety score was 4 and that 17.9% of the patients received a score of 8 or more. They also reported that the median depression score was 1 (1-3) and that 6.8% of the patients had a score of 8 or more [22]. In the present study, 30.0% and 23% of the kidney transplant recipients had the risk of anxiety and depression respectively. The higher risk of depression found in the kidney transplant recipients in this study compared to that reported from other studies can be explained by the fact that data were collected during the COVID-19 pandemic. Benzing, et al. [25] found that liver transplant recipients experienced a moderate severity of anxiety and depression [25]. However, Cannavo, et al. [1] discovered that solid organ recipients had lower levels of anxiety and depression after transplantation [1]. Pelgur, et al. [26] reported that 29.7% and 57.8% of the liver transplant recipients had anxiety and depression respectively [26]. In the present study, 14.1% and 15.2% of the liver transplant recipients had the risk of anxiety and depression respectively. Differences in the results of the studies can be explained by support provided for the recipients by hospitals in the long-term after transplantation when data are collected, cultural features of study samples, and social support status of the recipients.

The Effect of Perceived Available Social Support on the Levels of Hope

There have not been any studies about the effect of posttransplant social support on the levels of hope. Studies performed in the pretransplant period have shown that insufficient social support creates hopelessness [13,19]. Goktas, et al. [13] discovered that social support had a relation with subdimensions of hope in patients waiting for kidney transplantation [13]. Yücens [19] observed that patients with chronic renal failure waiting for transplantation had higher levels of hope when provided with stronger social support [19]. Consistent with the studies performed with pretransplant patients, the present study showed that as social support increased so did the levels of hope. Patients with high levels of hope might have asked for help from their families and friends to cope with their problems and use their social networks effectively. Besides, the patients' high social support might have facilitated their psychological adaptation to their problems and increased their hope.

Patients have to adapt to many immunosuppressant drugs and change their lifestyles after transplantation. Social support facilitates coping with difficulties in this period. Although posttransplant patients have physical recovery, they still need support to adapt to their treatment and new lifestyles [27]. In the present study, the mean score of the kidney and liver transplant recipients on the PASS was 21.88 ± 6.11 (min-max: 10-32). The lowest and highest scores likely to be obtained from the scale are 8 and 32 respectively. Therefore, the patients had a moderate level of support. In a study by Yatkın [28] the kidney transplant recipients had moderate social support with a mean score of 59.84 ± 17.01 (min-max:12-84) on The Multidimensional Scale of Perceived Social Support [28]. Rosenberger, et al. [29] evaluated posttransplant social support in kidney transplant recipients by using a scale with a total score of five and reported a mean social support score of 1.66 ± 0.8. They also discovered that the patients with low social support had low adherence to treatment [29]. Similarly, Garcia, et al. [12] found that liver transplant recipients had low social support [12]. Langenbach, et al. [30] using The Perceived Social Support Scale, examined social support levels in 155 liver transplant recipients and 78 heart transplant recipients (n = 233) and found that the patients had low social support scores [30]. Bülbüloğlu and Demir [31], using The Multidimensional Scale of Perceived Social Support, examined social support levels in liver transplant recipients and reported that the patients had low social support with a mean score of 46.07 ± 4.91 [31].

The effect of clinical features on the levels of hope

It is important to determine the levels of hope in kidney and liver transplant recipients to offer them psychosocial support and activate their coping mechanisms [9]. Nurses can increase their levels of hope by performing personalized nursing interventions. They should take into account the factors affecting the levels of hope while planning and implementing nursing interventions, which will improve the quality of nursing care [32,33].

In the current study, as time from organ transplantation increased, the level of hope decreased. The increased hopelessness of the patients in the present study may be related to the fact that a longer time after transplantation can increase mortality. It is stated in the literature that survival is longer after transplantations from live donors compared to

Citation: Şeker E, Çürük GN, Karayurt Ö. The Effect of Anxiety, Depression, Social Support and Clinical Features on Hope in Kidney and Liver Transplant Recipients. Arch Nurs Pract Care. 2025;11(1):001-007. Available from: https://dx.doi.org/10.17352/anpc.000067

transplantations from cadavers. In the present study, the level of hope was found to drop in the patients receiving transplants from cadavers. Building an emotional relationship and feeling grateful to the donor might have had a positive influence on the level of hope.

Demir and Demir [32] showed a moderate level of hopelessness after liver transplantation [32]. Özdaş, et al. [33] found a low level of hopelessness after kidney transplantation. They also noted that patients with primary education had a significantly higher level of hopelessness than those with high school education or a higher level of education although there was no significant difference between the hopelessness score and other descriptive characteristics including age, gender, marital status, time after transplantation and accompanying diseases [33]. In another study including kidney transplant recipients, Zhao, et al. [34] revealed that occupation, monthly income, marital status, and free healthcare would allow building a better social support network and increase the level of hope [34]. However, these variables were not found to be predictive of the level of hope in the present study.

Conclusion

The study found that a significant proportion of kidney and liver transplant recipients were at risk of anxiety and depression and had moderate levels of social support. As depression increased, the level of hope decreased. Anxiety had no effect on the level of hope. Better social support increased the level of hope. Longer time after transplantation and cadaveric transplantation decreased the level of hope.

It can be recommended that organ transplant recipients' anxiety, depression, social support, and level of hope should be evaluated in the posttransplant period and that appropriate nursing interventions should be planned and implemented in accordance with the results of the evaluation. Besides, further studies should be performed to evaluate the efficacy of interventions that can increase the levels of social support and hope.

Limitations

This is the first study to focus on the relationship between the level of hope and anxiety, depression, social support, and sociodemographic and clinical features. Therefore, the results of the study will contribute to and fill in the gap in the relevant literature and guide further studies about the issue. However, the study has three limitations. First, the study sample included kidney transplant recipients presenting to a state hospital and liver transplant recipients presenting to a private hospital. Therefore, they might have different sociocultural features, which can be considered as a limitation of the study. Second, the study was performed with patients presenting to the outpatient clinics of two hospitals only. For this reason, obtained results may not be generalized to the general population. Finally, the obtained findings are descriptive in nature and the analyses were directed towards finding a relation between variables. No conclusions could be drawn regarding causality.

References

1. Cannavò A, Passamonti SM, Vincenti D, Aurelio MT, Torelli R, Poli F, et al. Quality of life before and after transplantation in solid organ recipients referred to the North Italy transplant program (NITp): A cross-sectional study. Transplant Proc. 2019;51(6):1692-1698. Available from: https://doi.org/10.1016/j.transproceed.2019.02.034

2. Ionescu VA, Diaconu CC, Bungau S, Jinga V, Gheorghe G. Current approaches in the allocation of liver transplantation. J Pers Med. 2022;12(10):1661. Available from: https://doi.org/10.3390/jpm12101661

3. Dew MA, Rosenberger EM, Myaskovsky L, DiMartini AF, DeVito Dabbs AJ, Posluszny DM, et al. Depression and anxiety as risk factors for morbidity and mortality after organ transplantation: A systematic review and meta-analysis. Transplantation. 2015;100(5):988-1003. Available from: https://doi.org/10.1097/tp.0000000000000901

4. Global Observatory on Donation and Transplantation. International Report on Organ Donation and Transplantation Activities. Executive Summary of 2022. 2024. Available from: https://www.transplant-observatory.org/summary/

5. De Pasquale C, Pistorio ML, Veroux M, Indelicato L, Biffa G, Bennardi N, et al. Psychological and psychopathological aspects of kidney transplantation: A systematic review. Front Psychiatry. 2020;11:106. Available from: https://doi.org/10.3389/fpsyt.2020.00106

6. Akbulut S, Ozer A, Firinci B, Saritas H, Demyati K, Yilmaz S. Clinical cases. Psicoterapia e Scienze Umane. 2020;8960(3):481-489.

7. Robinson S, Kissane DW, Brooker J, Burney S. A systematic review of the demoralization syndrome in individuals with progressive disease and cancer: a decade of research. J Pain Symptom Manage. 2015;49(3):595-610. Available from: https://doi.org/10.1016/j.jpainsymman.2014.07.008

8. Moran A, Scott A, Darbyshire P. Waiting for a kidney transplant: patients' experiences of haemodialysis therapy. J Adv Nurs. 2011;67(3):501-509. Available from: https://doi.org/10.1111/j.1365-2648.2010.05460.x

9. Rzeszut M, Assael R. Differentiating depression from demoralization in organ transplantation recipients. Prog Transplant. 2021;31(1):88-90. Available from: https://doi.org/10.1177/1526924820978602

10. Yang FC, Chen HM, Pong SC, Chen CH, Wang SS, Chen CM. Difficulties and coping strategies of kidney-transplant recipients during their dark postoperative recovery stage after returning home. Transplant Proc. 2020;52(10):3226-3230. Available from: https://doi.org/10.1016/j.transproceed.2020.05.011

11. Bozkurt E, Tuna A. Effect of video training on anxiety, depression and sleep patterns for patients undergoing liver transplantation. Cukurova Med J. 2020;45(3):940-953.

12. Garcia CS, Lim AS, La-Rotta EIG, Boin IFSF. Social support for patients undergoing liver transplantation in a public university hospital. Health Qual Life Outcomes. 2018;16(1):35. Available from: https://link.springer.com/article/10.1186/s12955-018-0863-5

13. Goktas S, Camdeviren EK, Gezginci E, Kosucu SN. Social support perceptions and hope levels of patients waiting for organ transplantation. Transplant Proc. 2019;51(7):2245-2249. Available from: https://doi.org/10.1016/j.transproceed.2019.01.180

14. Topbaş E, Bingöl G. With the psychosocial perspective, dialysis treatment and nursing interventions towards adaptation process. J Nephrol Nurs. 2017;12(1):36-42.

15. Aydemir Ö, Güvenir T, Kuey L, Kültür S. Validity and reliability of Turkish version of hospital anxiety and depression scale. Turkish J Psychiatry. 1997;8(4):280-287. Available from: https://www.researchgate.net/publication/284678404_Validity_and_Reliability_of_Turkish_Version_of_Hospital_Anxiety_and_Depression_Scale

Citation: Şeker E, Çürük GN, Karayurt Ö. The Effect of Anxiety, Depression, Social Support and Clinical Features on Hope in Kidney and Liver Transplant Recipients. Arch Nurs Pract Care. 2025;11(1):001-007. Available from: https://dx.doi.org/10.17352/anpc.000067

16. Kapıkıran Ş, Acun-Kapıkıran N. Adaptation of the perceived available support scale into Turkish: a validity and reliability study. J Ankara Univ Fac Educ Sci. 2010;43(2):51-73.
Available from: https://doi.org/10.1501/Egifak_0000001202

17. Aslan Ö, Kömürcü Ş, Özet K, Sekmen A. Hope for cancer patients. J Cumhuriyet Univ School Nurs. 2007;11(2):18-24.

18. Ceyhan Y, Soylu D. Moderator effect of transplant waiting time on the relationship between hopelessness and death anxiety in patients waiting for organ transplant. OMEGA-J Death Dying. 2024;88(3):785-806.
Available from: https://doi.org/10.1177/00302228231208389

19. Yücens B, Kotan VO, Özkayar N, Kotan Z, Yuksel R, Bayram S. The association between hope, anxiety, depression, coping strategies and perceived social support in patients with chronic kidney disease. Dusunen Adam J Psychiatry Neurol Sci. 2019;32:43-51.

20. Özşaker E. Transplantation and quality of life. Balikesir Health Sci J. 2014;3(3):166-173.
Available from: http://dx.doi.org/10.5505/bsbd.2014.98598

21. Müller HH, Englbrecht MS, Wiesener MS, Titze S, Heller K, Groemer TW, et al. Depression, anxiety, resilience and coping pre and post kidney transplantation - initial findings from the psychiatric impairments in kidney transplantation (pi-kt)-study. PLoS One. 2015;10(11):e0140706. Available from: https://doi.org/10.1371/journal.pone.0140706

22. Weng FL, Chandwani S, Kurtyka KM, Zacker C, Chisholm-Burns MA, Demissie K. Prevalence and correlates of medication non-adherence among kidney transplant recipients more than 6 months post-transplant: A cross-sectional study. BMC Nephrol. 2013;14:261.
Available from: https://link.springer.com/article/10.1186/1471-2369-14-261

23. Lai YL, Neo HLM, Vathsala A, Griva K. Comparing emotional adjustment of living-donor and deceased-donor kidney transplant patients. Transplantation Direct. 2020;6(2):e529. Available from: https://journals.lww.com/transplantationdirect/fulltext/2020/02000/Comparing_Emotional_Adjustment_of_Living_donor_and.9.aspx

24. Silva DS, Andrade Edos S, Elias RM, David-Neto E, Nahas WC, Castro MC. The perception of sleep quality in kidney transplant patients during the first year of transplantation. Clin (Sao Paulo). 2012;67(12):1365-71.
Available from: https://doi.org/10.6061/clinics/2012(12)04

25. Benzing C, Krezdorn N, Hinz A, Glaesmer H, Brähler E, Förster J, et al. Mental status in patients before and after liver transplantation. Ann Transplant. 2015;17(20):683-93.
Available from: https://doi.org/10.1186/s12955-017-0723-8

26. Pelgur H, Atak N, Kose K. Anxiety and depression levels of patients undergoing liver transplantation and their need for training. Transplant Proc. 2009;41(5):1743-8.
Available from: https://doi.org/10.1016/j.transproceed.2008.11.012

27. Ordin YS, Dicle A, Wellard S. Quality of life in recipients before and after liver transplantation in Turkey. Prog Transplant. 2011;21(3):260-7. Available from: https://doi.org/10.1177/152692481102100312

28. Yatkın I. Depression, anxiety, quality of life and social support in renal transplantation patients and donors before and after transplantation [thesis]. Istanbul: Ministry of Health Haydarpaşa Numune Training and Research Hospital Psychiatry Clinic Specialty Thesis; 2009. Available from: https://www.istanbulsaglik.gov.tr/w/tez/pdf/psikiyatri/dr_isilay_yatkin.pdf

29. Rosenberger J, Geckova AM, van Dijk JP, Nagyova I, Roland R, van den Heuvel WJ, et al. Prevalence and characteristics of noncompliant behaviour and its risk factors in kidney transplant recipients. Transpl Int. 2005;18(9):1072-8.
Available from: https://doi.org/10.1111/j.1432-2277.2005.00183.x

30. Langenbach M, Schmeisser N, Albus C, Decker O. Comparison of social support and psychosocial stress after heart and liver transplantation. Transplant Proc. 2008;40(4):938-9.
Available from: https://doi.org/10.1016/j.transproceed.2008.03.039

31. Bülbüloğlu S, Demir B. The effect of perceived social support on psychological resilience in liver transplant patients receiving immunosuppression therapy. Transplant Immunol. 2021;69:101475.
Available from: https://doi.org/10.1016/j.trim.2021.101475

32. Demir B, Demir İ. Effects of illness perception on self-care agency and hopelessness levels in liver transplant patients: A descriptive cross-sectional study. Clin Nurs Res. 2022;31(3):473-80.
Available from: https://doi.org/10.1177/10547738211036983

33. Özdaş T, Mudstone I, Akgüre S, Özaydın KB, Çelik M, Yıldız G. Level of hope-despair and depression in patients with renal transplantation. Proceedings of the 36th National Nephrology Congress 2019, Istanbul Okan University Hospital, Istanbul.

34. Zhao SM, Dong FF, Qiu HZ, Li D. Quality of life, adherence behavior, and social support among renal transplant recipients in China: A descriptive correlational study. Transplant Proc. 2018;50(10):3329-33.
Available from: https://doi.org/10.1016/j.transproceed.2018.05.026

Citation: Şeker E, Çürük GN, Karayurt Ö. The Effect of Anxiety, Depression, Social Support and Clinical Features on Hope in Kidney and Liver Transplant Recipients. Arch Nurs Pract Care. 2025;11(1):001-007. Available from: https://dx.doi.org/10.17352/anpc.000067