

Determination of social support and hopefulness levels of liver transplant patients

Karaciğer nakli olan hastaların sosyal destek ve umutsuzluk düzeylerinin belirlenmesi

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SUMMARY

Aim: Physical and mental problems experienced in transplantations have negative effects on an individual's biological, psychological and social life. These transplantations often push transplant patients into hopefulness. This research was conducted with the aim of identifying the association between levels of social support and hopefulness in patients with liver transplants.

Material and Methods: This descriptive-type research was conducted at two different University Hospitals' Organ Transplant Services between January 2020-June 2021. The overall population of the research is all liver transplant patients of these centers. The sampling quantity for the research was identified as 165 patients as a result of a power analysis. The data was collected through face-to-face interviews with patients who had undergone liver transplants. The research data were collected using the Personal information form, Multidimensional Perceived Social Support Scale (MPSS), and Beck Hopelessness Scale (BHS).

Results: The multidimensional perceived social support scale score averages of patients participating in the study were found to be 62.79±17.39, which is a social support scale score above medium value. The hopefulness average was found as 8.53±3.42. This is a moderate level of hopelessness score. It was determined that there is a significant negative correlation between social support and hopefulness ($r=-0.437$ $p=0.001$).

Conclusion: Patients' levels of hopefulness were found to decrease as their social support scores increased. Reducing levels of hopefulness can be achieved by increasing the social support that transplant patients receive.

Keywords: Hopefulness, liver transplant, nursing, social support

ÖZET

Amaç: Nakillerde yaşanan bedensel, ruhsal sorunların bireyin biyolojik, psikolojik ve sosyal yaşamı üzerinde olumsuz etkileri vardır. Bu sıkıntılar nakil hastalarını çoğu zaman umutsuzluğa itmektedir. Bu araştırma, karaciğer nakli olan hastalarda sosyal destek ve umutsuzluk düzeyleri arasındaki ilişkiyi belirlemek amacıyla yapılmıştır.

Materyal ve Metotlar: Tanımlayıcı tipte yapılan bu araştırma iki farklı Üniversite Hastanesi Organ Nakli Servislerinde Ocak 2020-Haziran 2021 tarihleri arasında yürütülmüştür. Araştırmanın evreni bu merkezlerde karaciğer nakli olan tüm hastalardır. Araştırmanın örneklemini yapılan güç analizi sonucunda 165 hasta olarak belirlenmiştir. Veriler, karaciğer nakli yapılmış hastalarla yüz yüze görüşme tekniği ile toplanmıştır. Araştırma verileri, Kişisel Bilgi Formu, Çok Boyutlu Algılanan Sosyal Destek Ölçeği (ÇBASDÖ), Beck Umutsuzluk Ölçeği (BUÖ), kullanılarak toplanmıştır.

Bulgular: Araştırmaya katılan hastaların çok boyutlu algılanan sosyal destek puan ortalamaları 62,79±17,39 olarak bulunmuştur, bu orta değer üstünde bir sosyal destek puanıdır. Umutsuzluk puan ortalamaları 8,53±3,42 bulunmuştur bu orta düzeyde bir umut puanıdır. Sosyal destek ile umutsuzluk arasında negatif yönde anlamlı bir ilişki olduğu saptanmıştır ($r=-0,437$ $p=0,001$).

Sonuç: Hastaların sosyal destek puanları arttıkça umutsuzluk düzeylerinin azaldığı bulundu. Nakil hastalarının aldıkları sosyal destekleri artırılarak umutsuzluk düzeylerinin azaltılması sağlanabilir.

Anahtar kelimeler: Hemşirelik, karaciğer nakli, sosyal destek, umutsuzluk

INTRODUCTION

The liver transplant, which was performed firstly by Starzl, is highly vital for patients with the end-stage acute and chronic liver disease today. Transplantation is a treatment option with a high success rate (1,2). Thanks to surgical techniques developed in recent years, liver transplants are administered in many liver diseases, mainly Hepatitis-B and alcohol-related cirrhosis (2,3). Physical and mental problems cause negative effects on transplant patients' biological, psychological, social life. These are reasons that often drive transplant patients to hopefulness. One of the most important factors in the emergence of hopefulness is the lack of social support (4). Social support formed by the bonds established in social life is crucial in health problems. Social support is interpersonal solidarity expressed by caring, reassuring, and the personal value of an individual's self-esteem. Being truly connected by feelings of love, respect, confidence positively influences the behavior and perception of transplant patients. Social support reduces the effects of stressful events and hopefulness (4,5). The negative relationship between social support and hopelessness in the pre-operative, post-operative, and discharge period draws attention. Hopefulness levels appear to be decreasing as the social support that patients receive from their support system increases (6,7,8).

For social support carried out to reduce the hopefulness experienced by patients, the difficulties experienced by patients in this arduous process must first be identified. It must be decided what kind of social support to supply according to the patient's need. The effectiveness of this support can be measured by addressing patient hopefulness (8,9). Support systems give patients renewed hope for negative thoughts. Nurses who provide primary care to patients should also provide training to support systems of individuals to increase social support. Increasing social support scores in line with counseling and training, which nurses also provide, is the most effective way to minimize individuals' levels of hopefulness (7,8,9).

Our aim is to determine the levels of social support and hopefulness of liver transplant patients.

MATERIAL AND METHODS

1. Research Design and Sampling

This descriptive research was conducted between January 2020 and June 2021 in Firat University Hospital and İnönü University Turgut Ozal Medical Center Organ Transplantation Services.

The overall population of the research was formed by all adult patients who had undergone a liver transplant in the Firat University Hospital and İnönü University Turgut Ozal Medical Center Organ Transplantation Services. In organ transplant centers, approximately 309 operations are performed in a year. As a result of the power analysis,

the sampling size of the research was determined as 165 patients at the two-way significance of $p < 0.05$ level, 0.95 confidence interval, and 0.3 impact level. The samples were chosen by a random sampling method from the overall population.

The data was collected by the researcher from all adult patients who had undergone liver transplantation in the organ transplant centers of two different university hospitals with the technique of face-to-face interviews in patient rooms in the postoperative period. For the research, permission was obtained from both institutions. Criteria for inclusion in the research were being adult patients with no communication issues, no diagnosed psychological conditions, no postoperative complications developed, and voluntarily agreeing to participate in the study.

2. Data Collection Tools

The research data were collected using the Personal information form, Multidimensional Perceived Social Support Scale (MPSS), Beck Hopelessness Scale (BHS).

Personal Information Form

Personal Information Form prepared by the researcher on the properties of the liver transplant patients who participated in the sample includes information such as age, gender, marital status, level of education, working status, where he lived, cause of transplant, and type of donor.

Multidimensional Perceived Social Support Scale (MPSS)

The Multidimensional Perceived Social Support Scale (MPSS) was developed by Zimet et al. (1988). This scale, whose validity and reliability in Turkish were studied by Eker and Arkar and reviewed by Gildiz, consisted of 12 items and 3 subgroups. Regarding the source of the support, these 3 groups consist of 4 items each (10,11,12). Sub-scale structure includes social support from a private person, family, and friends. Each item is rated using a 7-point Likert scale (1:absolutely no; 7:absolutely yes), and the subscale scores are obtained by adding the scores of the four items in each subscale, and the total score of the scale is obtained by adding all the subscale scores. The lowest score to be taken from the entire scale is 12 and the highest is 84. A high score from the scale indicates high social support received or perceived, while a low score indicates a lack of perceived support, lack of support, or deprivation. Validity and reliability studies report Cronbach alpha coefficients between 0.80 and 0.95 (11,12). In this study, the Cronbach alpha coefficient was found to be 0.94.

Beck Hopefulness Scale (BHS)

Beck Hopefulness Scale was developed by Beck et al. in 1974, validity and reliability studies in Turkish were made by Seber et al.; This scale, which was adapted by Durak et al. in 1994 through the small sample size, consists of 20 items aiming to determine the hopelessness level of

the individuals about the future (13,14,15). Individuals are asked to check "correct" for statements that sound appropriate to them and "wrong" for statements that do not suit them when answering BHS. There are 11 correct, 9 incorrect response keys in these statements. Items 1,3,7,11, and 18 of BHS explain the factor of "feelings and expectations about the future", and items 2,4,9,12,14,16,17 and 20 explain the factor of "motivation loss", and items 5,6,8,10,13,15 and 19 explain the "Hope" factor. The lowest score that could be taken from the entire scale is 0 and the highest is 20. The high score indicates that patients have an excess level of hopefulness, while the low score indicates that patients are hopeful. The Cronbach alpha reliability coefficient of the scale determined in the study of Durak (14,15) is 0.86. In this study, the Cronbach alpha coefficient was found to be 0.67.

3. The Analysis of Data

The data obtained in the study were analyzed using the Statistical Package for Social Science 22.00 (SPSS) software. While evaluating the research data, Pearson correlation analysis was used in addition to descriptive statistical methods (number, percentage, mean, standard deviation). The significance level was accepted as $p < 0.05$.

4. Ethical Aspect of the Research

The ethics approval was obtained from the Ethics Committee of the Firat University (Approval no: 2020/01-8) to conduct the research. The Helsinki declaration was followed up at all stages of the research. Written and verbal consent were taken from the participants.

RESULTS

The average age of patients, as noted in Table 1, was 43.98 ± 15.36 , with the majority being women (55.8%), married (71.5%), secondary school graduates (41.8%), non-working (78.2%), and county residents (45.5%). The transplantation reasons of the patients involved in the study are of close value. The vast majority had alcohol-related liver disease/cirrhosis, with a rate of 27.3%. Transplants of patients who participated in the study were made from a live donor with a high rate of 91.5%.

Patients who participated in the study had a Multidimensional Perceived Social Support Scale (MPSS) total score average of 62.79 ± 17.39 , family sub-scale score average of 5.76 ± 2.05 , friends sub-scale score average of 5.14 ± 1.63 , and a special human sub-scale score average of 4.89 ± 1.85 (Table 2).

The Beck Hopefulness Scale (BHS) total score average of patients participating in the study was 8.53 ± 3.42 , the feelings and expectations about the future subscale (FES) average was 0.38 ± 0.23 the loss of motivation subscale score average was 0.40 ± 0.28 , the hope sub-scale score average was 0.48 ± 0.10 (Table 2).

As a result of correlation analysis to determine the relationship between the Multidimensional Perceived Social Support Scale total score and the Beck Hopelessness Scale total score, a negative significant correlation between the scores was found ($r = -0.437$; $p = 0.001$) (Table 3). As the social support score increased, the hopefulness score was seen to decline.

Table 1. Sociodemographic and medical properties of patients (n=165)

Demographic properties	n	%
Age	43.98 ± 15.36 ($\bar{X} \pm SD$)	
Gender	Woman	92 / 55.8
	Man	73 / 44.2
Marital Status	Married	118 / 71.5
	Single	47 / 28.5
Education Level	Primary school graduate	26 / 15.8
	Secondary school graduate	69 / 41.8
	High school graduate	36 / 21.8
	University graduate	15 / 9.1
Working Status	Working	19 / 11.5
	Not working	36 / 21.8
Where He/She Lives	Province	129 / 78.2
	County	69 / 41.8
	Town/village	75 / 45.5
Reason for Posting	Acute/Chronic liver failure	21 / 12.7
	Hepatitis B	44 / 26.7
	Hepatitis C	40 / 24.2
	Alcoholic liver disease/cirrhosis	36 / 21.8
Donor Type	Living Donor	45 / 27.3
	Cadaver Donor	151 / 91.5
		14 / 8.5

Table 2. Patients' Multidimensional Perceived Social Support Scale (MPSS) and Beck Hopefulness Scale (BHS) score averages (n=165)

	$\bar{X}\pm SD$	Lowest Score	Highest Score
Multidimensional Perceived Social Support Scale	62.79±17.39	12	84
Family Subscale	5.76±2,05	1.75	24.25
Friend Subscale	5.14±1,63	1,00	7.00
A Special Human Subscale	4.89±1,85	1,00	7.00
Beck Hopelessness Scale	8.53±3,42	0	20
Feelings and expectations about the future	0.38±0,23	0.00	0.80
The loss of motivation subscale	0.40±0,28	0.00	0.88
Hope Subscale	0.48±0,10	0.29	1.00

Table 3. Relationship between MPSS and BHS

		Multidimensional Perceived Social Support Scale	Family Sub-scale	Friend Subscale	A Special Human Subscale
Beck Hopefulness Scale	r	-0.437	-0.408	-0.380	-0.314
	p	0.001	0.001	0.001	0.001
	s	165	165	165	165
The feelings and expectations about the future	r	-0.344	-0.381	-0.288	-0.191
	p	0,001	0.001	0.001	0.014
	s	165	165	165	165
Loss of motivation sub-scale	r	-0.360	-0.319	-0.298	-0.292
	p	0,001	0.001	0.001	0.001
	s	165	165	165	165
Hope subscale	r	-0.388	-0.319	-0.406	-0.266
	p	0.001	0.001	0.001	0.001
	s	165	165	165	165

(r: Pearson Correlation Coefficient, n: Number of people, p: Significance value)

DISCUSSION

The average score of the social support scale in our research is above medium value. The highest score of support systems was taken from family (Table 2). High social support scores of patients indicate the effectiveness of support systems. Zhao et al. (16) conducted a study on kidney transplant patients and noted that quality of life depends on social support, compliance behavior, time after transplantation, and education. They also found that social support for transplant patients had the most significant impact on quality of life. Garcia et al. (4) found a high average of social support received from the family in their study on liver transplant patients. The literature parallels our research findings, noting that the social support scores received from the family averaged higher (17,18,19,20). The reason why the average social support score from the family is high is that the family has an important place throughout our lives. Strengthening family ties in a negative situation and increasing domestic solidarity will increase social support. Patients who have undergone major surgery, such as liver transplants, receive more support from their families especially to cope with the negative effects of both physical and psychological changes caused by the surgery, suggesting that family support is important.

Transplant patients' hopefulness score averages in our research are 8.53±3.42 (Table 2), and patients have a moderate hope score. Demir et al. (21) conducted a study on patients with liver transplantation and found the mean hopelessness score of 10.19±3.81. The results of our research are similar to the study results in the literature (22,23). It is thought that the reason for this is the effect of the social support that individuals receive from their support systems on hopelessness. Support systems have a big role in reducing patients' levels of hopefulness. That's because when patients are pessimistic and hopeless, they cling to life again thanks to their family, friends, and a special person in their lives. These support systems give patients renewed hope for negative thoughts. Nurses who provide primary care to patients should also provide training to support systems of individuals to increase social support. Increasing social support scores in line with counseling and training, which nurses also provide, is the most effective way to minimize individuals' levels of hopefulness.

When the relationship between the patients' Multidimensional Perceived Social Support Scale and Beck Hopelessness Scale total scores was examined, a negative significant relationship was found between them (r=-0.437; p =0.001, Table 3). Accordingly, the total score of hopefulness decreases as the total score of

perceived social support increases. There are also studies in line with the results in the literature. Buursma et al. (24) found a negative significant relationship between social support and the level of hopefulness. Our research results are in line with the literature (25,26). Thanks to the social support patients receive from their support system, patients will move away from negative behavior, pessimism, and hopefulness. Therefore, the greater the levels of social support patients receive, the lower their levels of hopefulness will be. Nurses who care for transplant patients play a big role in increasing patients' social support levels by providing counseling for the support systems. Through this, patients are thought to be able to get more effective social support and reduce their levels of hopefulness. These research data can only be generalized to this group. This is the limitation of our research.

CONCLUSION AND RECOMMENDATIONS

Our research found a negative significant correlation between patients' social support and hopefulness scores. The level of hopefulness is diminishing as the perceived social support score increases. It is necessary to increase the effectiveness of the treatment process in patients who have had a liver transplant. It is proposed to plan and implement initiatives to increase social support by support systems so that there is no hopefulness in this process.

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