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**THE RELATIONSHIP BETWEEN SOCIAL SUPPORTS AND
MENTAL STATES OF INDIVIDUALS WITH KIDNEY
TRANSPLANTS**

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Abstract

This study was conducted to evaluate the relationship between the social supports and mental states of individuals with kidney transplants. All the patients in Akdeniz University Prof. Dr. Tuncer Karpuzoğlu Organ Transplant Education, Research and Application Centre polyclinic comprised the population of the research, and the patients meeting the research criteria according to simple random sample choice comprised the sample of the research. The research data was collected between 30th November 2014 and 31st July 2015. Three different forms were used as data collection tools including socio-demographic information as well as the Multi-Dimensional Perceived Social Support Scale and Short Symptom Inventory. Besides descriptive statistical methods, Kruskal-Wallis Test and Whitney-U Test were used in the comparison of qualitative data in the data evaluation. Short symptom inventory subdimension point averages were calculated as 6.81 ± 8.29 in anxiety, 8.31 ± 9.14 in depression and 30.80 ± 32.25 in total. The family support point average - the sub-dimension of Multi-Dimensional Perceived Social Support Scale - was 25.32 ± 5.68 and the total point average was determined as 58.76 ± 16.79 . A weak relationship was found between the subdimensions of Short Symptom Inventory with the subdimensions of Multi-Dimensional Perceived Social Support Scale and the total point negatively ($p < 0.01$). The data analysis established that as social support level of the individuals with kidney transplant perceive increases, the symptoms of anxiety, depression, negative self, somatization and hostility decreases. These findings highlight that individuals with kidney transplants have good levels of mental states, that the social support they perceive is above the average and that the individuals with transplants get the most social support from their families. These results suggest that education programs on social support need to be instituted and that similar studies need to be carried out with individuals with kidney transplants in different institutions in Turkey.

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Keywords: Kidney Transplant, Social Support, Mental State, Nursing.



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1. Introduction

Chronic kidney failure is a very serious disease posing a vital threat in the absence of hemodialysis, periton dialysis or kidney transplant (Kaya Akı and Demir Dikmen, 2012; Kaya et.al., 2012; Akdemir and Birol, 2004). In recent years, infection control, immunosuppressive treatment and advancements in surgical techniques have made kidney transplants the preferred and most successful treatment method for individuals with chronic kidney failure (Özçürümez et.al., 2003; Gül et.al., 2010).

Lately, kidney transplants have become an effective treatment method for patients with kidney failure. However, kidney transplant receivers may experience mental disorders and emotional stress regarding their quality of life. Moreover, numerous problems like difficulty in sustaining a regular life after the transplant, considering using the immunosuppressive medicine for the rest of his/her life, function loss, sexual problems, possible infection risk, tumorigenesis risk and chronic rejection affect the individuals' psychological outlook negatively and may cause job loss (Cürcani and Tan, 2013; Ayar et.al., 2015; Perdeci et.al., 2012; Curcani and Tan, 2011; Amerena and Wallace, 2009; Trzcinska and Włodarczyk, 2001).

Mood disorders, especially anxiety and depression, are the most common problems in individuals with kidney transplant in the post-transplant period (Pascazio et.al., 2010). Arapaslan et.al.'s (2004) study stated that 50% of the individuals with kidney transplants suffer from depression and 25% of them suffer from anxiety. Gregorio et.al.'s (2006) stated that the anxiety levels of individuals with kidney transplants are high, these individuals are more sentimental and fragile, and they suffer from anxiety more. Szeifert et.al.'s (2010) study stated that each one of five patients with kidney transplants displays a high risk for depression.

Social support is defined as the material, moral or cognitive help supported by individuals like spouse, family and friends under stress or in a difficult situation. Perceived social support is the value that the individual values for himself/herself. The perceived support of the individual relates to being loved by others, to be respected, to be able to find help when needed, to have satisfying relationships and more (Ardahan, 2006). Social support meets social needs like self-respect, belonging to a group, love, compassion and competence and affects the physical and mental health of an individual positively (Öztürk et.al., 2006; Pedro et.al., 2008).

The insufficiency or lack of social support that the individual perceives and ineffective handling strategies may cause mental problems like anxiety and depression (Pehlivan et.al., 2008) as well as social retreat and mortality. It is crucial that the individual has family support in handling his/her problems. Ögütmen et.al.'s study found that the married individuals with kidney transplants have a better quality of life compared to single individuals with kidney transplants. The study emphasised the social support that the individuals get from their spouses and children (Ogutmen et.al., 2006).

2. Problem Statement

The lack of or under-identification of mental problems can result in numerous problems for the individuals with kidney transplant in the pre and post-transplant period, if the social support they need is not given. This is compounded if nurses lack knowledge on the relationship between social support and mental state of the individuals. Studies assessing the relationship between social support and mental states of the individuals with kidney transplants are limited both in Turkey and in other countries. Hence, the need to

determine the relationship between social support and the mental states of the individuals with kidney transplants is very important.

3. Research Questions

- 3.1 What are the mental states and social supports of individuals with kidney transplants?
- 3.2 What are the factors that affect their situations and is there a relationship between the social supports and the mental states of the individuals with kidney transplants?

4. Purpose of the Study

This study was conducted to evaluate the relationship between the social supports and mental states of individuals with kidney transplants.

5. Research Methods

This study was carried out using a descriptive and cross-sectional format. All the patients under the controller therapy in Akdeniz University Prof. Dr. Tuncer Karpuzoğlu Organ Transplant Education, Research and Application Centre polyclinic comprised the population of the research (N=300). The patients meeting the needs of the research criteria according to the simple random sample choice between 30th November, 2014 and 31st July, 2015 comprised the sample of the research (n=300). In this regard, patients who had their checks and monitoring in the organ transplant polyclinic, who had kidney transplants at least 6 months prior to the study, who were aged 18 and over, who volunteered for joining the study, who had no loss of feeling in sight and hearing, and who had not been diagnosed with psychiatric illness were included in the study.

The data for the research was collected by the researcher in the polyclinic room through face to face interviews with the patients using the “Personal Information Form,” including the introductory information of individuals with kidney transplants, the “Multi-Dimensional Perceived Social Support Scale” to identify their social supports and the “Short Symptom Inventory” to determine the mental states of the individuals.

5.1. Multi-Dimensional Perceived Social Support Scale (MDPSS)

This scale was developed by Zimet et.al in 1988 and its credibility and reliability in Turkey was ascertained by Eker, Arkar and Yaldız in 2001. The scale comprises a total of 12 questions, with subdimensions of family, friend, special person according to the source of the support. Credibility-reliability studies have stated the Cronbach alpha coefficients as between 0.80 and 0.95 (Eker et.al., 2001). In the credibility analysis for this study, the Cronbach alpha coefficient was calculated as 0.88, and 0.95 for the scale total point and subdimensions.

5.2. Short Symptom Inventory (SSI)

The credibility and reliability study for the Short Symptom Inventory (SSI), developed by Derogatis in 1992 for scanning mental symptoms, was ascertained for Turkey by Şahin and Durak in 2002. SSI is a Likert type scale comprising 23 items graded between 0 to 4. SSI comprises five subscales, namely anxiety, depression, negative self, somatization and hostility. The high value of the total points acquired from the scale shows the increase of mental symptoms and it was reported that Cronbach alpha inner reliability coefficients acquired from the total points of the scale in three different studies differ from 0.96 to 0.95, and that the coefficients acquired for the subscales differ from 0.55 to 0.86. In this study, the Cronbach alpha coefficients regarding the inner reliability of the scale was found between 0.96 and 0.98 for total scale point and its subdimensions (Şahin Hisli and Batıgün Durak, 2002).

5.3 Ethical aspect of the data collection

Before the data collection of the study began, written ethical approval from Mersin University Clinical Research Ethics Board and an official permit from the Prof. Dr. Tuncer Karpuzoğlu Organ Transplant Education, Research and Application Centre were obtained. Oral and written approval were obtained from the selected individuals with kidney transplants during the data collection.

6. Data Analysis

The data was statistically evaluated with the help of Shapiro Wilks test with MedCalc®, Variance Analysis test, chi-square analysis and Z tests.

7. Findings

When the socio-demographic characteristics of the individuals with the kidney transplants were examined, it revealed that 41% were aged between 26-40; 62.3% were male; 70.3% were married; 65% had children; 62.3% had primary school level education; 69.3% were unemployed; 42.7% were employed; 56% had a balanced income; 53% were living with his/her spouse and children; 45.7% were living in an urban area and 86% were living in the elementary family.

With regard to illnesses, the analysis of the data of the selected individuals with kidney transplants revealed that 41.7% of them suffered additional chronic illness (diabetes, hypertension, etc.); 25% had suffered chronic kidney failure for 11-16 years; 65.7% had undergone the kidney transplant between 1-5 years; that 57.3% had a donor from a first degree relationship (mother, father, sibling, etc.) and that 89.3% had information about post-transplant period.

Table 1. Brief Symptom Inventory Point Average According to Socio-Demographic Characteristics of Individuals with Kidney Transplants

Variables	(n)	Anxiety Dimension average±SD	Depression Dimension average ±SD	Negative Self Dimension average ±SD	Somatization Dimension average ±SD	Hostility Dimension average ±SD	Scale Total Score average ±SD
Age							
18- 25 age	(30)	7,30±8,4	8,83±10,17	6,57±8,26	4,17±5,52	6,57±6,50	30,43±35,39
26-40	(123)	8,67±9,78	9,63±9,93	7,07±8,15	5,01±5,37	6,10±6,34	36,49±35,29
41-55	(101)	5,39±7,02	7,16±8,43	5,50±7,07	3,68±4,93	4,29±4,59	26,02±28,10
56 years and over	(46)	4,63±4,95	6,98±7,30	4,60±7,46	3,87±4,70	4,30±4,66	24,40±25,90
P		0,01*	0,15	0,22	0,25	0,03*	0,04*
Gender							
Female	(113)	6,70±8,33	8,62±9,09	6,08±7,24	22,70±6,01	5,21±6,35	31,68±32,10
Male	(187)	6,88±8,30	8,13±9,19	6,13±8,02	3,84±4,82	5,29±5,17	30,27±32,41
P		0,86	0,65	0,95	0,05	0,602	0,715
Marital status							
Married	(211)	6,16±7,54	7,22±8,38	5,59±7,25	4,02±5,08	4,85±4,83	27,84±30,27
Single	(73)	8,36±9,53	10,19±10,14	6,85±8,53	4,62±5,26	6,11±7,60	36,12±35,82
Divorced	(10)	10,10±12,52	16,50±12,50	12,90±9,94	6,00±4,55	8,20±4,37	53,70±39,50
Other	(2)	5,33±7,87	10,33±6,62	4,33±4,23	7,67±6,68	4,33±3,88	32,00±24,03
P		0,13	0,001*	0,02*	0,21	0,13	0,031
Childhood Status							
Non-Child	(105)	8,29±9,38	9,86±10,02	6,81±8,21	4,61±5,32	5,77±6,73	35,33±35,06
Being a Child	(195)	6,02±7,56	7,48±8,54	5,74±7,44	4,14±5,06	4,98±4,94	28,36±30,44
P		0,02*	0,03*	0,25	0,46	0,25	0,031
Education status							
Illiterate	(12)	5,33±6,20	9,08±8,03	7,75±5,40	6,83±6,62	3,67±3,75	32,67±23,20
Literate	(8)	13,25±15,15	11,63±9,75	9,88±11,95	8,38±9,80	6,38±6,39	49,50±50,55
Primary school graduate	(187)	6,50±8,06	8,16±9,30	5,94±7,82	3,96±4,68	4,94±5,71	29,49±32,06
High school graduate	(54)	8,07±7,97	9,61±8,70	7,00±7,41	4,96±5,76	6,54±5,97	36,19±31,84
University graduate and above	(39)	5,69±8,25	6,33±9,14	4,44±7,11	3,46±4,17	5,31±4,99	25,23±30,88
P		0,11	0,39	0,28	0,03*	0,32	0,222
People Who Live Together							
Alone	(7)	9,86±12,67	14,43±12,51	9,00±10,44	3,71±2,43	5,29±7,99	42,29±42,09
With partner	(55)	5,76±5,58	6,42±6,55	5,02±7,00	4,18±4,54	4,51±4,26	25,89±24,89
With husband/wife and children	(159)	6,28±8,15	7,62±9,00	5,76±7,43	3,98±5,16	4,92±5,03	28,57±32,04
With parents	(70)	8,73±9,78	10,86±10,56	7,50±8,80	4,87±5,51	6,59±7,37	38,54±36,71
Children / relatives	(6)	2,50±1,64	7,00±4,20	5,83±5,42	5,83±6,71	4,67±4,97	25,83±16,07
Other	(3)	10,67±10,50	8,67±8,50	6,33±4,73	9,00±8,54	7,00±6,08	41,67±35,91
P		0,13	0,03*	0,46	0,47	0,33	0,190
Family Type							
Elementary family	(258)	6,27±7,85	7,88±8,84	5,72±7,58	4,09±5,20	5,00±5,66	28,97±31,29
Extended family	(42)	10,12±10,13	11,00±10,54	8,50±8,24	5,64±4,69	6,83±5,24	42,10±35,99
p		0,01*	0,04*	0,04*	0,07	0,05	0,014

*p<0,05, **p<0,01

Table 2. Score averages related to Multidimensional Perceived Social Support Scale according to socio-demographic characteristics of kidney transplants.

Variables	(n)	Family Support Dimension	Friend Support Dimension	Special Person Dimension	Scale Total Score
		average ± SD	average ± SD	average ± SD	average± SD
Age					
18- 25 age	(30)	23,83±7,08	20,30±9,09	11,93±10,33	56,07±18,83
26-40	(123)	25,15±5,76	20,60±8,06	12,08±10,12	57,82±16,92
41-55	(101)	25,66±5,42	22,87±7,77	12,36±10,35	60,89±16,71
56 years and over	(46)	26,00±4,96	22,61±7,81	9,72±9,41	58,33±15,12
P		0,36	0,12	0,50	0,42
Gender					
Female	(113)	25,68±5,81	21,42±8,77	16,31±11,14	63,42±18,64
Male	(187)	25,10±5,60	21,77±7,64	9,07±8,33	55,94±14,92
p		0,39	0,72	0,001**	0,001**
Marital status					
Married	(211)	25,86±5,00	22,04±7,67	11,68±10,18	59,58±15,94
Single	(73)	23,81±7,33	20,47±9,01	12,75±10,25	57,03±19,51
Divorced	(10)	25,60±4,20	20,80±9,73	9,60±9,42	56,00±17,72
Other	(2)	24,33±5,39	23,17±7,55	7,83±5,95	55,33±5,65
P	0,06	0,72	0,50	0,56	0,62
Childhood Status					
Non-Child	(105)	24,51±6,68	20,49±9,00	12,10±10,24	57,10±18,37
Being a Child	(195)	25,75±5,02	22,26±7,48	11,64±10,05	59,65±15,84
P		0,07	0,07	0,71	0,21
Education status					
Illiterate	(12)	25,75±6,90	20,08±9,44	11,50±9,62	57,33±15,53
Literate	(8)	26,50±3,21	20,63±8,90	11,00±8,09	58,13±12,90
Primary school graduate	(187)	25,40±5,48	21,22±8,44	11,54±10,39	58,16±17,03
High school graduate	(54)	25,33±5,63	22,56±6,95	11,61±9,52	59,50±15,29
University graduate and above	(39)	24,56±6,78	23,08±7,15	13,54±10,30	61,18±19,01
P		0,89	0,56	0,85	0,87
People Who Live Together					
Alone	(7)	21,14±8,95	17,29±9,30	9,29±9,36	47,71±21,11
With partner	(55)	26,87±3,63	22,85±7,65	13,20±10,78	62,93±15,16
With husband/wife and children	(159)	25,55±5,31	21,92±7,59	11,45±10,13	58,91±16,03
With parents	(70)	23,97±7,05	20,11±9,26	11,99±9,88	56,07±19,19
Children / relatives	(6)	24,50±5,50	25,50±5,21	9,83±9,93	59,83±12,24
Other	(3)	27,67±0,58	22,67±9,24	10,00±6,00	60,33±5,51
P		0,02*	0,19	0,85	0,14
Family Type					
Elementary family	(258)	25,55±5,49	21,75±8,23	11,90±10,25	59,21±17,00
Extended family	(42)	23,88±6,62	20,98±7,09	11,14±9,23	56,00±15,32
p		0,08	0,57	0,65	0,25

*p<0,05, **p<0,01

Table 2 shows the distributions of the point averages on the SSI scale of the individuals with kidney according to their socio-demographic characteristics. When these point averages were compared, the variables of age, marital status, having a child, education status, individuals living with their family

did affect the mental status of the individuals and that the differences were statistically meaningful (Table 2) ($p < 0.05$).

When the data were further examined, the anxiety and scale total point averages of the individuals in the 26-40 age group was found to be higher than the other age groups (8.67 ± 9.78), (36.49 ± 35.29). The difference between the groups was identified as statistically meaningful ($p = 0.01$), ($p = 0.03$). The hostility point averages of the individuals in the 18-25 age group was higher than the other age groups (6.57 ± 6.50) and the difference between the groups was identified as statistically meaningful ($p = 0.01$).

The depression and negative-self point averages of individuals with kidney transplants are the highest in the divorced individuals (16.50 ± 12.50), (12.90 ± 9.94) and the difference between the groups were identified as statistically meaningful ($p = 0.0001$), ($p = 0.02$).

The anxiety and depression point averages of individuals with kidney transplants were found to be higher in the individuals with no children compared to those with children (8.29 ± 9.38), (9.86 ± 10.02) and a statistically meaningful difference was found between the groups ($p = 0.02$), ($p = 0.03$).

The somatization point averages of the individuals with kidney transplants were found to be higher in the literate individuals (8.38 ± 9.80) and a statistically meaningful difference was found between the groups ($p = 0.03$).

The depression point averages of the individuals with kidney transplants were found to be higher in those living alone (14.43 ± 12.51) and a statistically meaningful difference was identified between the groups ($p = 0.03$).

The anxiety, depression and negative self point averages of the individuals with kidney transplants were found to be higher in those living in extended families (10.12 ± 10.13), (11.00 ± 10.54), (8.50 ± 8.24), and a statistically meaningful difference was identified between the groups ($p = 0.01$), ($p = 0.04$), ($p = 0.04$).

No statistically meaningful difference was found in SSI subdimensions for the variables of gender and employment status of individuals with kidney transplants and scale total point averages (Table 2).

Table 3 shows the point averages that the individuals with kidney transplants obtained from the MDPSSS scale according to their sociodemographic characteristics. When the point averages the individuals obtained from the MDPSSS scale according to their sociodemographic characteristics are compared, the variables of gender, people they live with and their employment status affect the social support of the individuals with a statistically meaningful difference (Table 3) ($p < 0.05$).

When the MDPSSS point averages of the individuals with kidney transplants are studied according to gender, the MDPSSS special person subdimension and total scale point averages of men were found to be lower than women (9.07 ± 8.33), (55.94 ± 14.92) with a statistically meaningful difference between the groups ($p = 0.001$), ($p = 0.001$).

The MDPSSS family subdimension point averages of the individuals with kidney transplants were found to be lower in employed individuals compared to unemployed individuals (24.29 ± 6.66), with a statistically meaningful difference was identified between in the employment status and the family subdimension average of MDPSSS ($p = 0.04$).

The MDPSSS family subdimension averages of the individuals with kidney transplants living alone were found to be lower than the other groups (21.14 ± 8.95) with a statistically meaningful difference between the groups ($p = 0.02$).

No statistically meaningful difference in the MDPSSS subdimensions were identified according to age, marital status, having children, education status and family type and scale total point averages (Table 3).

Table 3. SSI and MDPSSS Score Average of Kidney Transplant Individuals

Scales	N	Average \pm SD	Lower and upper values
Anxiety	300	6,81 \pm 8,29	0,00-46,00
Depression	300	8,31 \pm 9,14	0,00-48,00
Negative self	300	6,11 \pm 7,72	0,00-42,00
Somatization	300	4,31 \pm 5,15	0,00-29,00
Hostility	300	5,26 \pm 5,63	0,00-51,00
SSI Total Score	300	30,80 \pm 32,25	0,00-172,00
Family Support	300	25,32 \pm 5,68	4,00-28,00
Friend Support	300	21,64 \pm 8,07	4,00-28,00
Special Person Support	300	11,80 \pm 10,10	4,00-28,00
MDPSSS Total Points	300	58,76 \pm 16,79	12,00-84,00

The SSI subdimension point averages of the individuals with kidney transplants who took part in the study was calculated as 6.81 \pm 8.29 anxiety, 8.31 \pm 9.14 depression, 6.11 \pm 7.72 negative self, 4.31 \pm 5.15 somatization and 5.26 \pm 5.63 hostility. SSI total scale point average was identified as 30.80 \pm 32.25. Of the MDPSSS subdimensions of individuals with kidney transplants, family support point average was identified at 25.32 \pm 5.68, friend support at 21.64 \pm 8.07 and special person support at 11.80 \pm 10.10. The MDPSSS total point average was calculated as 58.76 \pm 16.79.

When the correlation of SSI and MDPSSS total and subscale point averages of the individuals with kidney transplants was analysed, a negatively weak relationship was identified between the all sub dimensions of the ISS and global indexes and all subdimensions of the MDPSSS and total point ($p < 0.01$). Moreover, it was found that as the social support levels the individuals with kidney transplants perceive increase, the symptoms of anxiety, depression, negative self, somatization and hostility decrease.

8. Discussion

In this study, the anxiety and scale total points of the individuals with kidney transplants aged between 26 to 40 were identified as high compared to other age groups. Furthermore, the hostility of the individuals aged 18-25 was identified as higher compared to the other age groups. The study reported that the individuals with kidney transplants experience anxiety in the post-transplant period (Sağduyu et al., 2006; Cürçani and Tan, 2013; Karaminia et al., 2007). Cürçani and Tan's (2013) study found that the highest anxiety point averages of the individuals with kidney transplants are between the ages of 24 to 29. Karaminia et al.'s (2007) study reported that the anxiety levels of the individuals who had kidney

transplants before the age of 35 was higher compared to the other age groups. Some studies have indicated the lack of a relationship between the age and anxiety levels of the individuals with kidney transplants (Sağduyu et.al., 2006; Arapaslan et.al., 2004, Alavi et.al., 2004). It can be surmised that the difference between the findings may have been resulted from the studies' being conducted with different age groups and due to the time that has passed after the transplant.

This study has determined that the gender does not affect the occurrence of depression, anxiety, negative self, somatization and hostility in individuals with kidney transplants. Arapaslan et.al.'s (2004) study stated that the depression and anxiety point averages are higher in women than men in individuals with kidney transplants. Lopes et.al.'s (2011) study reported that the depression level of women is higher than men in individuals with kidney transplants. On the other hand, Karamina et.al.'s (2007) study stated that the gender of the individuals with kidney transplants does not affect anxiety and depression levels. It can be surmised that the difference between the findings of this study and other studies' results are caused by individual, cultural and sampling differences.

Depression and negative self-perceptions among individuals with kidney transplants was determined to be higher in divorced individuals than married ones. In Cürçani and Tan's (2013) study, anxiety and depression was reported to be lower in married individuals with kidney transplants. Besides, several studies have noted that being married is a factor protecting the mental health of individuals (Sağduyu et.al., 2006; Oğutmen et.al., 2006; Chisholm et.al., 2007). In Akman et.al.'s (2004) study, the frequency and severity of depression was reported to be lower in married individuals with kidney transplants. These findings show that being married has a positive effect on the mental health of the individuals with kidney transplants.

This study found that the anxieties and depressions of the individuals without children are higher than those with children. A child is perceived as the aim of a marriage and family institution in all societies and having a child is accepted as a biological, mental, social and cultural need for the couples (Sezgin & Hocoğlu, 2014). Demirtaş and Beydağ's (2015) study stated that although there is no meaningful difference between having children and the anxiety levels of the individuals with kidney transplants, the state and trait anxiety levels of those having a child is higher than those having no children.

It was detected that the somatization points of literate individuals with kidney transplants are higher. Previous studies have highlighted that individuals comprehend the chronic course better as the education level increases and that this situation affects the adjustment process positively in mental terms (Cürçani and Tan, 2013; Özçürümez et.al., 2004). It can be surmised that an increase in the education level of the individuals with kidney transplants, more sources and healthcare services could be reached.

It was detected in this study that the individuals with kidney transplants living alone had high levels of depression, indicating that loneliness is one of the factors causing depression and has a determinant effect in the appearance of mental illnesses, especially depression (Yaşar, 2007). Ovayolu et.al.'s (2007) study found an increase in the depression levels of hemodialysis patients as their loneliness level increased. These findings allows us to surmise that living alone could be evaluated as being at risk in terms of the tendency of having mental problems for the individuals with kidney transplants.

The anxiety, depression and negative self-perceptions of individuals with kidney transplants living in extended families were found to be higher than those living in elementary families. However, Özşaker et.al.'s (2005) study reported that the family status (elementary, extended, broken) of the individuals with kidney transplants does not affect the depression and anxiety points of such individuals.

This study found that the general social support and the social support from special persons (neighbor, fiancée, etc.) that males with kidney transplants receive is lower than that for the women. In studies where the social support according to genders was studied, Neff and Karney (2005) reported that women provide easier social support for their spouses and that both men and women show supportive behaviors. Cürçani and Tan (2011) found that life quality of males with kidney transplants was higher than that of the female patients. The study surmised that this situation may have resulted from the inadequate social support for the women. It can be surmised that this situation could be the result of men not being as sociable as women and from their not having more social support beside his family and friends.

This study found that the social support the individuals with kidney transplants living alone get from the family is lower than the individuals with kidney transplants living with a spouse. This finding highlights that the social support the individuals living alone get from the family is also insufficient. Gökçay's (2009) study indicated that the individuals with kidney transplants get adequate intra-familial and extra-familial social support and that the individuals with enough social support are mostly those who are married and living with more than one person in the house. Yatkın's (2009) study indicated that the biggest support group of the individuals with kidney transplants is their families. Hence, this underscores the importance of the support the individuals get from their families; that living alone decreases the social support systems and that the individuals living alone need the social support from the family.

As the literature discussing the connection between social supports and the mental states of the individuals with kidney transplants is limited, the findings of this study can prove to be very helpful in adding to the literature. The SSI scale point averages of the individuals with transplants are 30.80 ± 32.25 (The lowest: 0 – The highest: 172). This shows that the individuals with kidney transplants scored below the average points pointing to good mental state. The SSI subdimension point averages of the individuals with kidney transplants who participated in this study were calculated as 6.81 ± 8.29 for anxiety, and 8.31 ± 9.14 for depression. This study detected that the anxiety and depression point averages of the individuals with kidney transplants were higher than other subdimensions. Yılmaz's study (2008) reported that the SSI subdimension averages in chronic kidney patients are 0.98 0.73 for somatization and 0.85 0.72 for hostility and that the mental symptoms having the highest point average are somatization and hostility, respectively.

The perceived social support scale averages of the individuals with transplants were 58.76 ± 16.79 (The lowest: 12 – The highest: 84). This means that the individuals in this study get a social support higher than the average, quite close to the highest score. The MDPSSS subscale point averages of the individuals with kidney transplants was determined as 25.32 ± 5.68 for family support. This study identified that the individuals with transplants get the most social support from their families. Yatkın's (2009) study reported that the MDPSSS subscale point averages of the individuals with kidney transplants were calculated as 27.42 ± 1.46 for family support and that the individuals with transplants get the biggest

support from their families. Our study concurs with the literature in this aspect which leads us to surmise that the result could be due to the individuals' spending more time with their families after the transplant.

This study determined that as the individuals perceive the social support levels increasing, the anxiety, depression, negative self, somatization, hostility symptoms decrease. When the studies explaining this relationship were examined, Gökçay's (2009) study reported that patients with kidney transplants get sufficient intra-familial and extra-familial social support, and that sufficient social support has a positive effect on general health state and mental health. Ceyhun's (2009) study indicated that as the social support perception increases, anxiety and depression levels decrease. Among patients who experienced more physical effects of the illness, a positive relationship was reported between the family support and mental well-being, and that the absence of family support increases the suicidal risk. Patel et.al.'s (2005) study stated that as the hemodialysis patients' perception of the social support level increases, the life satisfaction of the patients increases in tandem, and that the depressive mental state and the burden of the illness decrease.

9. Conclusion

This study found that while the variables age, marital status, having children, and family structure affect the mental states of the individuals with kidney transplants, the variables of gender and people they live with affect the social support they perceive. This study also found the mental states of the individuals who participated in this study to be good, that the social support they perceive is above the average, and that the individuals with transplants get the most social support from their families. The study found that as the social support levels the individuals with kidney transplants perceive increase, the symptoms of anxiety, depression, negative self, somatization and hostility decrease.

It is recommended that the risk group of individuals with kidney transplants displaying a high possibility of experiencing mental problems and insufficient social support be regularly followed up notably by psychiatry and nephrology nurses and the whole organ transplant crew. The mental states of these individuals should be regularly evaluated and the necessary interventions done, through regular social support programs and social support systems of the individuals triggered to provide the social support the individuals need to remain psychologically and physically healthy. It is recommended that this study is conducted on all individuals with kidney transplants in Turkey.

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