The Relationship Between Social Support Perceived By Infertile Couples and their Mental Status

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ABSTRACT

Aim: To determine the relationship between the mental status of couples receiving infertility treatment and their perceived social support.
Study desing: Descriptive study
Place and duration of study: In Vitro Fertilisation Center between January and April 2018 in a university hospital in Antalya.
Methods: 148 infertile couples who received infertility treatment at the data of the research were gathered through a questionnaire for determining socio-demographic and infertility related characteristics of the couples receiving infertility treatment, Multidimensional Scale of Perceived Social Support and Brief Symptom Inventory.
Results: In the study, the average age of infertile women was 31.4±5.6 and that of men was 34.5±5.2. In the study, the mean Multidimensional Scale of Perceived Social Supportscore of the women was determined to be 62.6±14.2, whereas that of the men 59.2± 14.2. The mean score received by the women from depression subscale of Brief Symptom Inventory was determined to be 10.2±8.9, and the mean score received by the men 6.7±6.6. A strong negative relationship between the total Multidimensional Scale of Perceived Social Supportscore and the Brief Symptom Inventory subscale mean scores (p <0. 01).
Conclusions: As a result of the research, as the social support levels perceived by couples receiving infertility treatment increased, their symptoms of anxiety, depression, negative self-perception, somatization, and hostility was determined to decrease.
Keywords: Infertility treatment, İnfertile couples, Mental status, Social support, Nursing.

NRADUCTION

Infertility is defined as the absence of pregnancy or being unable to maintain the pregnancy even though the couples who want to have children have been in regular sexual intercourse without using any contraception method for at least one year[1].Infertility is a crisis of life which brings about psychological, sexual and social problems for the part of couples, and which has religious and social-class related aspects[1].This crisis affects %10-15 of the couples within the reproductive age interval in the world, and10-20% of the married couplesin Turkey[2].Infertility diagnosis and treatment process is a difficult and long process that affects couples physically, psychologically, and financially. In this process, couples may experience stress, panic state,and intense emotional pressure. However, in societies where femininity is considered as equivalent to motherhood, and masculinity to productivity, fertility is accepted as an indicator of the individual's sexual identity. The fact that society excludes the women who do not havechildren and question the masculinity of their husbands may confront the couples with problems, which lead to depression, anxiety, and a decrease in sexual desire, even cause a breakdown in the marriage[3,4].In studies conducted, it stands out that both of the spouses experience psychological problems but women feel more stress, guilt, and responsibility than men during infertility treatments[5-7].

In the treatment process during which the anxiety level of the couples are very high, social support is quite important both for the couple and for the success of the treatment. Providing adequate social support makes it easier for infertile couples to adapt to treatment and may reduce their psychological problems[2,5].In their studies,Slade et al. (2007) found that stigma perception was associated with low social support for both sexes. In the same study, social support was reported to decrease as anxiety, depression, and infertility stress increase[8].In the research which Dilek and Beji (2012) conducted with 80 couples to which applied at least one infertility therapy, 75.0% of women, and 43.8% of men were determined to believe that the psychological support would increase theperformance in the processes[9].In a study conducted by Martins et al. (2014) with couples receiving infertility treatment, infertility stress factor was found to be caused by low partner support both for women and men, and low family support was determined to be effective in experiencing stress for the part of women[10].In all phases of infertility treatment, identifying the stress level of couples, problems they encounter, and solutions offers would provide significant contributions in terms of getting through the treatment process healthly for the part of the couples and achieving an increase in therapeutic success[5].The purpose of care within the infertility treatment process is the evaluation of the physical, psychological and social status of couples, identification of the problems and needs in these areas, and theprovision of appropriate care according to identified needs[11].Along with the role of infertility nurses in medical care, they have also psychological support, quality assurance, coordinator, trainer/counselor, patient rights advocate, supportive, manager, researcher roles[11].It is very important for both of the spouses who struggle with the infertility

problem that nurses activatethe social support systems during the treatment process of the infertile couple by taking a holistic approach.

METHODS

This study utilized a descriptive design. This research was carried out to determine the relationship between the mental status of couples receiving infertility treatment and their perceived social support. In the study, all the participants were couples who applied to the IVF center of a university hospital in Antalya between January and April 2018.

As a result of statistical calculations at least 148 couples (148 females, 148 males) had to be included in the sample of the study with a test power of 81.23%. The sample of the study consisted of 148 infertile couples who received infertility treatment in the IVF Center of a University Hospital in Antalya between January - April 2018 and volunteered to participate in the research.

Measurement

Socio-demographic Data Form: The data collection form which was titled "Socio-demographic Data Form" was developed in the light of the literature[2,5,9]. The survey form consists of two parts and 17 questions in sum.

Multidimensional Scale of Perceived Social Support: The Turkish validity and reliability study of the scale was conducted by Eker and Arkar in 2001. The scale, which evaluates the adequacy of the social support received from three different sources, can be filled in a short time. It is easy to apply and consists of 12 short items. The lowest score that can be obtained from the entire scale is 12 and the highest score is 84. The scale has no cutoff score. The high score indicates that perceived social support is high.The low score points to the absence of perceived support, a scarcity of support, or deprivation of support[15].Cronbach's alpha coefficient of the total score was found to be 0.89 in this study.

Brief Symptom Inventory: Brief Symptom Inventory(BSI) is a Likert type scale comprising 23 items graded between 0 to 4. The high value of the total scoreobtained from the scale shows the increase of mental symptoms[16]. In our study, the coefficients calculated for the subscales regarding the internal consistency of the scale were found to be between 0.73 and 0.85.

Data collection: Data collection tools were applied to 148 infertile couples who received infertility treatment at a University Hospital betweenJanuary andApril 2018 and accepted to participate in the research. The purpose of the research was explained to the couples. The data collection tools were applied to the couples, by visiting the IVF center everyday.

Statistical analysis: After the data obtained from the research was coded by the researcher, they were transferred to the SPSS for Windows 20.0 (Statistical Package for Social Sciences) computer program and necessary analyses were made in this program. As descriptive statistics;the mean and standard deviation, minimum and maximum values of the characteristics were used to produce the statistics of the data with a continuous

structure in the scales, whereas frequency and percentage values were used to define the categorical variables. The relations between the scales were evaluated through the Pearson Correlation Coefficient.

RESULTS

The mean age of the women participating in the study was determined to be 31.4±5. 6, and that of the men 34.5±5.2. Approximately half of the women (41.2%) were determined to be university graduates, and 39.9% of them were observed to work. As for the men, 35.8% were determined to be high school graduates, and almost all of them (91.2%) were observed to work. Of the women participating in the research, 70.9% stated that their income was equal to their expenses. As for the men, this rate was 70.3%. The vast majority (96.6%) of the couples participating in the study were determined to have a nuclear type of family (Table 1).

Within the scope of the research, the mean of infertility duration of the couples who wanted to have a child was determined to be 4.4±3.1, and 51% of them were found not to have children between 1-3 years. Besides, the mean treatment duration of the couples was found to be 2.9±3.0, and 53% of the couples were determined to have been receiving treatment for 1-3 years. When the reasons for the infertility are viewed, it is seen that 23.0% of the cases arise from sperm deficiency, 17.6% from Polycystic Ovary Syndrome, 12.2% from ovarian insufficiency, and about half of them (47.3%) from other (unexplained) reasons (Table 2).

In our study, the mean anxiety subscalescore of the women was determined to be 7.9±8.3 and that of the men 5.3±5.4; the mean depression subscale score of the women was found to be 10.2±8. 9, and that of the men 6.7±6. 6; the mean negative self-perception subscale score of the women was observed to be 6.6±7. 0 and that of the men 5.7±6.0.

The mean total MSPSS score of the women participating in the study is 62.6±14.2, that of the men is 59.2±14. 2. The mean MSPSS sub-dimension scores of the women who received infertility treatment were found as 24.2±4.6for "Family" sub-dimension, 20.1±6.4 for "Friend" sub-dimension, and 18.3±6.8 for "Special person" sub-dimension. As for the mean MSPSS sub-dimension scores of the men were found to be 23.3±5.1for "Family" sub-dimension, 19.3±5.8for "Friend" sub-dimension, and 16.6±6.6 for the "Special person" sub-dimension.

The relationship between the total mean scores received by the couples from Brief Symptom Inventory sub-dimensions and MSPSS is given. Anxiety, depression, negative self-perception, somatization, and hostility symptoms were found to decrease as the social support levels perceived by the couples increased. Besides, as the total mean scores that they received from MSPSS increased Brief Symptom Inventory score was found to be strongly affected in the negative direction(r=-0.766, p<0.01).

Table 1. Sociodemographic characteristics of the participants (n=296)

Sociodemographic characteristics	Women (n=148)		Men(n=148)	
	$\bar{X}\pm SD$		$\bar{X}\pm SD$	
Age	31.4±5.6		34.5±5.2	
	n	%	n	%
20-25 years	20	13.5	2	1.4
26-32 years	69	46.6	53	35.8
33-39 years	49	33.1	65	43.9
40 years and older	10	6.8	28	18.9
Educational status				
Illiterate	2	1.4	-	-
Primary school	26	17.6	21	14.2
Secondary school	28	18.9	25	16.9
High school	31	20.9	53	35.8
University	61	41.2	49	33.1
Employment status				
Working	59	39.9	135	91.2
Not working	89	60.1	13	8.8
Perceived income level				
Lower than the expenses	21	14.2	20	13.5
Equal to the expenses	105	70.9	104	70.3
More than the expenses	22	14.9	24	16.2
Social security status				
Insured	142	95.9	139	93.9
Not insured	6	4.1	9	6.1
Family Type				
Nuclear family	143	96.6	143	96.6
Extended family	5	3.4	5	3.4

Table 2. The Distribution of Brief Symptom Inventory Subscale Mean Scores of Couples

SSI Scales	Women (n=148)		Men (n=148)	
	X ±SD	Min-Max	X±SD	Min-Max
Anxiety	7.9±8.3	0-45	5.3±5.4	0-29
Depression	10.2±8.9	0-39	6.7±6.6	0-40
Negative self-perception	6.6±7.0	0-40	5.7±6.0	0-36
Somatization	5.0±4.5	0-24	2.7±3.2	0-19
Hostility	5.7±4.7	0-22	5.9±4.7	0-24

Table 3. The Distribution of Brief Symptom Inventory Subscale Mean Scores of Couples

MSPSS Score	Women (n=148)		Men (n=148)	
	X ±SD	Min-Max	X ±SD	Min-Max
Family Support	24.2±4.6	4-28	23.3±5.1	4-28
Friend Support	20.1±6.4	4-28	19.3±5.8	4-28
Special Person Support	18.3±6.8	4-28	16.6±6.6	4-28
MSPSS Total Score	**62.6±14.2**	**12-84**	**59.2±14.2**	**12-84**

DISCUSSION

The infertility treatment process is an important crisis period that affects the bio-psycho-social and sexual health of couples. In this period, couples try to adapt to the treatment process along with the social pressures and cope with this problem. In this process, situations such as uncertainty, anxieties about the future, desperation, and inadequacy of social support can cause couples to experience mental problems. Social support perceived by couples is very importantfor them to cope with this difficult process. Many studies emphasize that as the social support level perceived by infertile couples increase, their mental problems decrease and treatment success increases[10,17-21]. In this context, taking into consideration that the social support given to couples will reduce mental problems and affect the success of treatment positively, addressing the mental problems and social supports of couples together is thought to be important.

In our study, the scores received from BSI subscales, anxiety, depression, and negative self-perception by the women receiving infertility treatment were determined to be higher than their spouses. As a result of the study conducted by Patel et al. with infertile couples, women were found to be more stressed, anxious, and depressed than their spouses[19]. In the study conducted by Omani et al., women were observed to experience more moderate anxiety, depression, and stress than men[22]. In the study conducted by El Kissi et al., women were determined to experience more anxiety, worry, and depression than their spouses[6]. In the study by Boadi and Asenta, the anxiety, somatization, and depression scores of infertile women were determined to be high[23].

In the study conducted by Moghadamet al.,depression was observed more in women compared to men[24]. In the study by Dilek and Beji's, the couples participating in the research were determined to be affected emotionally in the treatment process by this situation, and women experience more emotional problems than their spouses[9].

Similar results were found in our study as well. This is a remarkable finding in congruence with the literature, which can be explained by the fact that social pressure and stigmatization towards women are heavier than men, regardless of the party from which infertility arises. Also, relatively poor mental status of the women compared to their spouses is thought to be likely to arise from the fact thatthe female body is subjected to more severe invasive and traumatic procedures during the treatment of infertility, and the hormonal drugs used by the woman during the process.

Infertility is a difficult process in which individuals are faced with an unexpected situation and a disruption in their plans for the future. For couples to cope with this challenging process, the support they perceived to receive from their relatives is very important[3].In our study, the total MSPSS score of the infertile women was determined to 62 6±14.2, and that of the infertile men 59.2±14 (Table 3). As a result of our research, the level of social support perceived by women was determined to be higher than men. In the study conducted by Martins et al. (2014), the perceived social support levels of women were found to be higher than that of men[10]. And in the study conducted by Sreshthaputra et al.,the social support of women was determined to be better than men[25].The findings of these studies show similarities withours. This can be explained by the fact that women share their feelings with their spouses, families, or friends more than men, they are more social and can use social support systems well.

Infertility is a complicated life crisis for couples. Social support levels perceived by couplesmight affect their coping with the problem of infertility. For infertile couples to share their feelings, thoughts, and problems with their family members, friends, or a counselor is thought to reduce the stress experienced[19]. As a result of the statistical analysis made in our study, a weak and negative relationship was found between BSI and all sub-dimensions and the total score of MSPSS($p<0.01$). In this context, as the social support levels perceived by couples receiving infertility treatment increased, symptoms of anxiety, depression, negative self-perception, somatization, and hostility were determined to decrease. In the study by Altıntop and Kesgin,as the infertile couples' level of receiving social support increased their state-trait anxiety was found todecrease[17].In the study by Patel et al., low social support was found to predict infertility stress in couples receiving infertility treatment[19]. In the research conducted by Malina and Pooley,thehappiness of couples and therealization probability of pregnancy as a result of the treatment were found to be negatively affected as the social support decreased[20]. As a result of a review of 12 studies Chow et al. determined that psychosocial interventions improve the mental status, marital relationships, and pregnancy rates of infertile couples in general[21]. In a study conducted by Martins et al. with infertile couples in Portugal, the infertility stress factor was found to be caused by low spouse support for both women and men, and low family support wasdetermined to be effective in experiencing stress for the part of women[10].In the study conducted by Slade et al., the perception of stigmawas found to be associated with low social support for both genders, and as social support decreased, anxiety, depression, and infertility stress were observed to increase[8].

The importance of social support in dealing with the psychological problems experienced by infertile couples during the treatment process was emphasized in many studies. In the studies conducted with infertile couples, as the level of social support perceived by couples increased, their psychological problems were determined to decrease. The result of our research is congruent with the literature. In this context, the social support that infertile couples, who are in a crisis period of their lives, would receive from their spouses, families, and friends plays a very important role for them to get through the difficult treatment process healthily. As a result of our research, it can be said that people use social support resources in stressful situations and receive positive effects. Besides, the positive perception regarding the social support received duringthe treatment process can be explained by various factors: It causes for couples to be saved from the fear of being abandoned thanks to the social support they receive from their spouses, regain their confidence and belief for themselves, feel better and more valuable, feel the sense of deficiency less or not feel at all, not attachimportance to being stigmatized and status losses, implement appropriate coping strategies.

CONCLUSIONS

In line with the results obtained from the research, the following recommendations were formed to improve the mental status of the infertile couples and to enhance their social support systems.

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