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Evaluation of Psychological Variables in Women Who Takes Infertility Care

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ABSTRACT

Infertility can cause many psychological problems in many women with numerous different ways. We aim to evaluate social support and family relation among women who takes treatment of infertility and who have depression, anxiety and guiltiness, shyness and infertility problems inventory.

71 women who have applied to department of obstetrics and gynaecology have been included in that study. Control group consist of 71 women between 18-45 ages, who were volunteer and had never taken treatment of infertility and also they had child. Various tests were applied to these women such as Hamilton Depression Test (HAM-D), Hamilton Anxiety Test (HAM-A), Shyness-Guiltiness Test, Multi-Dimensional Perceived Social Support Scale (ÇBASDÖ) and Family Support Test.

Average age of infertile group was 30.0+ 3.6 years and average age of control group was 28.7+5.0 (p:0.084). According to analysis there was not difference between infertile group and control group of depression rate (infertile group %14.1 control group %9.9, p.0.438);but there was a significant difference between infertile and control groups for anxiety levels (infertile group 10.2-42, control group 7.0-34 p<0.001), shyness-guiltiness (infertile group in 101 control group 69, p<0.001), perceived social support (infertile group 55 control group 52, p<0.001), fertility problems (infertile group 170, control group 135 p<0.001).These results of infertile group were really higher than results of control group. Perceived family supports rates of infertile group were lower than rates of control group (infertile group 30, control group 37. p<0.001).

In our study, we determined that anxiety, shyness and guiltiness were very high in infertile people and on the other hand family support was low. Our findings showed that infertile patients need psychological support from the time of diagnosis and during the treatment. For this reason, it can be said that it is useful to set a good connection between infertile polyclinic and psychiatry polyclinic.

Key Words: Infertility, anxiety, depression, guiltiness, shyness

Introduction

A diagnostic evaluation for infertility is indicated for women who fail to achieve a successful pregnancy after 12 months or more of regular unprotected intercourse (1)

Infertility can be seen about %5 or %30 in different regions, and one of ten couples cannot be pregnant during a period of year and moreover; %15 of that couples seek treatment for infertility and %5 can't have baby even if they want it. It is said that about 50 or 80 million couples have infertility problem around the world. In our country one of ten couple has that problem (2)

There are studies which show infertility can cause psychological problems both in men and women. It decreases sexual pleasure and so it also decreases frequency of sexual intercourse (3). On the contrary, in some studies, it is said that infertility make couples closer and closer to each other and strength them in their marriage. According to study which has been conducted by lone schmidt et al. stated that stress decreases when it is shared and the problems of adaptation decreases and also their marriage relation develops in a positive manner (4)

Quality of psychological support given to infertile couples will be determinant in order to figure out what kind of problems infertile couples have. So we aimed to evaluate social-family support relation, depression, anxiety and guiltiness-shyness level among women who have infertility treatment and in healthy controls.

Material and Methods

Our study consisted of two groups. The study group consisted of 71 volunteer infertile women.

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Table 1. Evaluation of the Sociodemographic Characteristics of the Groups

		Infertile group (n=71)	Control Group (n=71)	p
Age	Mean±SD	30±3,665	28,72±5,009	0,084
Marriage age	Mean±SD	22.51±3.601	22.82±4.812	0.891
Professional status ; n (%)	Housewife	54 (76.1)	34 (47.9)	0,001*
	Employee	14(19.7)	21 (29.6)	
	Officer	3 (4.2)	16 (22.5)	
Education Status ; n (%)	literate	13 (18.3)	4 (5.6)	0,001*
	Primary education	29 (40.8)	20 (28.2)	
	High school	23 (32.4)	35 (49.3)	
	University	6 (8.5)	12 (16.9)	
Income status ; n (%)	Minimum wage and below	22 (31)	3 (4.2)	0,001*
	Minimum wage and twice	41 (57.7)	21 (29.6)	
	Minimum wage three times and above	8 (11.3)	47 (66.2)	
Smoking ; n (%)	Smoking	18 (25.4)	26 (36.6)	0,147
	No smoke	53 (76.4)	45 (63.4)	

Women diagnosed with infertility participated in the study from both Mustafa Kemal University and Mersin University. The objective of the study and methods were explained and a detailed informed consent form was signed by women. The control group consisted of 71 volunteer women between the ages of 18 and 45 who had no infertility problem, who had never received infertility treatment, and who had child. These women had no chronic psychiatric disorder. A total of 142 volunteers were included in this study that was performed between January 2015 and July 2015. Male infertile patients, patients who stated that they were infertile but who were not diagnosed by an obstetrician and gynecologist and patients who were followed up for infertility for less than 2 years were excluded from the study.

Data collection: Primary infertile female patients diagnosed by a gynecologist and obstetrician were included in this study.

In this study, many information have been collected about women with infertility diagnosis by same doctor and the problems of the women have been saved to the socio-demographic and clinic data form. Many tests such as Hamilton depression test (HAM-D), Hamilton Anxiety (HAM-A), Guilt-Shyness Test, Multi-Dimensional Perceived Social Support Scale (ÇBASDÖ) and Perceiving Family Support (AADÖ) and Infertile Problem Inventory test have been applied to the women by interviewer. The same tests have been applied to the control group as well.

Statistical Analysis: All the statistical analyses were performed using Statistical Package for the Social Sciences 17.0 for Windows software program IBM Corp. 2013, USA. Numerical variable between two independent groups were analyzed with student t-test in case of normal distribution and with Mann Whitney U test if else. The comparison of the rates between the groups was performed by chi-square analysis.

Normality test was performed in terms of evaluated features and nonparametric methods were used for features (variables) that did not show normal distribution. For descriptive statistics, using median and minimum/maximum values instead of mean was considered appropriate.

Results

The average age of infertile group is 30±3.67 and in control group is 28.72±5.01. The average age of marriage of infertile group was 22.51±3.60, the average of marriage of control group is 22.82±4.81 (p:0.891). %76.1 of the infertile group was housewife, %19.7 (n:14) was worker, and %4.2 (n:3) was officer.

In control group, %47.9 (n:34) of women was housewife, % 29.6 (n:21) was worker and % 22.5 (n:16) was officer. The rate of employee was relatively lower than control group (p:0.001). The features of socio-demographics of groups were given on Table 1.

When we evaluated the marks of HAM-D among groups, the cutoff score was found as 14 and higher (5). According to that result about %14.1 of infertile

Table 2. HAMD Scores and Depression Conditions of the Groups During the Interview

		Infertile Group (n=71)	Control Group (n=71)	p*
Depression n (%)	There is (HAM-D≥14)	10 (14.1)	7 (9.9)	0,438
	There isn't (HAM-D<14)	61 (85.9)	64 (90.1)	

Table 3. Evaluation of Hamilton Anxiety, Guilt-Shame, Perceived Social Support, Perceived Family Support, Fertility Problem Inventory Scales

	Infertility Group (n=71)	Control Group(n=71)	p
	Median value, min-max	Median value, min-max	
HAM-A	10, 2-42	7, 0-34	0.001*
ASDÖ	55, 9-74	52, 33-67	0.030*
AADÖ	30, 17-39	37, 25-40	0.001*
FSE	176, 118-204	135, 109-171	0.001*
SUTÖ	101, 79-112	69, 47-94	0.001*
SUTÖ/U	44, 31-61	30, 17-55	0.001*
SUTÖ/S average, SD	56,43-72	36,19-55	0.001*

*p<0.05

group (n:10) and % 9.9 (n:7) of control group had depression. There is no any significant difference rate or depression between groups (p:0.438) Table 2.

The marks of HAM-A in infertile group are higher than control group. The points of guilt-shyness of infertile group are higher than control group (p<0.001). Guiltiness subscale of guilt-shyness scale was significantly higher in infertile group (average SD 56.62±6.3) as compared to control group (average SD 36.9±8.7). Also shyness subscale of guilt-shyness scale between groups was statistically significantly higher in infertile groups than the control group.

The family support marks of infertile group are lower than control group (p<0.001). When companing infertile problem inventory between groups results are as follows; infertile group as 176, 118-204 and control group as 135, 109-171. According to the results, the marks of infertile group are higher than control group.

Abbreviations: HAM-A: Hamilton anxiety scale, ASDÖ: Perceived social support scale, AADÖ: Perceived family support scale, FSE: Fertility problem inventory, SUTÖ: Guilt-Shame scale, SUTÖ/U: Guilt-Shame scale Shame subdivision, SUTÖ/S: Guilt-Shame scale Guilt subdivision.

Discussion

Depression rate, anxiety levels, and signs of psychological violence were higher in infertile group than in the control group according to a study performed in our country (6). There was no difference between the two groups in terms marriage and sexual relationships. It was found that depression rate was low in women who worked, who had a wealthy economic status and who had a good education level as well. It was also found that there was a significant relationship between economic situation and general symptom level. Low economic income results in high level of general symptoms (6). According to the results of a similar study, individuals who were socially supported by their partners, families and friends had negative relationship with depression, anxiety and stress. However, no relationship was found between friends' support and anxiety in infertile women (7). When we look at according to the past psychiatric diagnosis of the infertile group we saw that the depression and anxiety levels of infertile group were higher than levels of control group. This situation supports that there can be a relation between infertility and psychiatric problems. These findings are consistent with previous researches that indicated social support as an important source of reducing distress related to infertility because infertile couples found satisfactory solutions by sharing their problems with others. Ineffective coping mechanisms lead infertile women to avoid discussion related to infertility and spend more time in isolation (8). Previous researchers suggested that self-efficacy mediated the relationship between social support and depression as self-efficacy got increased when social support was being provided to infertile women and this sense of security reduced depression in them (9).

It has been determined that depression is seen among 12 of the 19 infertile women, but just 4 of the 20 healthy control women. So depression is high among women who has infertility according that study (10). According to our study, the women have had

depression after they had the diagnosis of infertility so the infertility problem can be handled as a cause of depression in our study group. In another study which has been done on 338 infertile women and 39 healthy women, depression rate and occurrence of depression have been higher than control group (11). Also the women who knows their infertile problems for two of three years get higher depression score than women who knows their infertility for just a year or six months (11). So that study shows us that infertile women have generally higher level of depression (11). Also the short terms of infertility and long term infertility can cause psychiatric symptoms (11). In our study there has no any significant difference among control group and infertile group (11). It has also seen that infertility not only create health problems, but also it can cause in a person herself to feel as deficient, low self-respect, feel guilty, and disappointment (12). According to a study, half of infertile women see infertility as their worst fact of their life, on the other hand just %15 of men share this idea.

Another study aimed to determine depression and anxiety levels in infertile women and looked at the relationship between treatment and cultural factors. The study evaluated 107 infertile and 63 healthy control group women. In this study, depression-anxiety levels of the two groups were not significantly different. Psychological symptoms of women who reported having bad relationships with their partner and who reported being under the pressure of their partner in their family were more common (13). This study supports the results of our study.

In addition to health problems, infertility has been shown to lead to a decrease in self-perception, to a person feeling inadequate, to a person seeing guilt, and thus to frustration (14). In one study, half of infertile women considered infertility to be the saddest event of their lives (15). A similar study; infertile women experience feelings of lack of value, inadequacy, lack of personal control, resentment, pain, depression, anxiety, stress, jealousy and exclusion towards other mothers (16). In our study, the total guilt-shame scores in the infertile group were significantly higher than in the control group. Reproductive incompetence often results in a social stigma. And this situation is perceived as embarrassing for infertile couples. Infertility has been seen as a life crisis since it takes a long time to be diagnosed, stresses the person significantly, brings about adjustment problems (17).

The deficiency of reproductive generally results from stigmatisation, and this situation is seen like a shameful act by couple. Infertility can cause stress, may create adaptation problems so it is seen as a crisis of life, it's definition takes long time.

In our study, we can say that infertile group have not had enough family support but on other hand their social support sense has been more strong. The deficiency of family support way causes low communication with their husband and their friends, and this canalize women to some other social support forms because they don't get enough support from their husband and they cannot share it with their husband (18).

This subject is very coherent with other studies that express women need more social support and they see their husband as a social support source.

The results which are obtained from that study cannot adapt to general society because of limited number of patient and methods used. Our study is the first study which examine relation of guiltness-shyness in literature.

In our study we observed that the level of anxiety, guiltiness-shyness, perceived social support and point of fertile inventory problem are higher in infertile women than control group, but meanwhile, family support points are lower than control group. So according to these findings; the couples who have infertile problems should be sent to a psychiatrist if needed because they may need psychiatrist support. It has been concluded that psychiatry and infertility policlinic should be contact with each other in order to reach a more comprehensive infertility management.

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