Emotional distress of infertile women in Turkey

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Summary

Objective: To determine the prevalence, severity and predictability of psychiatric symptoms of infertile women and the effects of infertility on marital and sexual relationships.

Methods: A semi-structured interview form, symptom check list, Beck Depression Inventory, State-Trait Anxiety Inventory and the Maudsley Marrital Questionnaire were utilized for 50 infertile women and 40 healthy women as a control group.

Results: Depression, anxiety and strength of psychological symptoms were significantly higher in the infertile group. Depression was decreased as the rate of employment, economic status and education increased. Infertility, infertility treatment, and marriage duration were positively correlated with depression and the strength of psychological symptoms. Sexual relationships were negatively affected the longer the duration of infertility treatment lasted.

Conclusion: Special attention must be given to identifying psychiatric problems in infertile women. Relationship and sexual difficulties also appear central to infertility-related stress; targeting problems in these domains will have maximal therapeutic benefit.

Key words: Infertility; Depression; Sexuality; Marital relationship.

Introduction

Creating a family and becoming a parent are considered central in certain periods of human life [1]. Inadequate fertility can result in social stigma and be socially perceived as a shameful defect [2]. Studies in this area stress the importance of psychological reactions to infertility [3, 4]. Infertility as a sudden and unexpected life crisis [5-7] is a condition which takes time to diagnose, creates excessive stress and negatively affects adjustment mechanisms [6]. Long-term treatment leads to life crises by producing problems in social and marital relationships and affecting economic status [8]. When infertility negatively influences marital relationships, it is generally sexual function and satisfaction that are affected. It is the necessity to conduct sexual relations during the fertile periods of the cycles that leads to a loss of spontaneity, turning sexual intercourse into a kind of task [4, 8].

The aim of this study was to determine the prevalence, severity, and predictability of psychiatric symptoms of infertile women and the effects of the infertility on marital and sexual relationships compared to a control sample of healthy women.

Materials and Methods

Fifty infertile women who applied to the Infertility Polyclinic of the Obstetrics and Gynecology Department of Istanbul Medical Faculty during a one-year period and subsequently diagnosed as having primary infertility comprised the study group. Forty healthy women who brought their children to the Mother-Child Health Department for routine checkups during the same period served as a control group.

The following questionnaires were utilized: A semi-structured questionnaire (sociodemographic characteristics, marital characteristics, psychological, medical and social findings about infertility), Symptom check list (SCL-90 R), Beck Depression Inventory (BDI), State-Trait Anxiety Inventory (STAI), and the Maudsley Marrital Questionnaire (MMQ). Validity and reliability studies of these scales in the Turkish population have been done. The independent samples t-test, Mann-Whitney U-test, chi square test and, if required, Fisher's exact test and the Spearman correlation test were used.

Results

The sociodemographic findings of the study and control groups are given in Table 1. The BDI, STAI and SCL-90 R findings of the groups are given in Table 2. Depression was negatively correlated to educational level ($r = -.43$, $p < 0.01$) and income ($r = -.39$, $p < 0.01$). Income was negatively correlated to SCL-90 R GSI ($r = 0$ -.37, $p < 0.01$) and PSI ($r = -.37$, $p < 0.01$) scores. Educational level was positively correlated to state anxiety ($r = .43$, $p < 0.01$) and trait anxiety ($r = .34$, $p < 0.05$).

The average duration of infertility was 6.38 ± 4.23. The average duration of infertility treatment period was 4.56 ± 3.75. Infertility duration was positively correlated to depression ($r = 0.35$, $p < 0.05$) and to PSI score of SCL-90 R ($r = 0.33$, $p < 0.05$). Infertility treatment duration was positively correlated to depression ($r = 0.40$, $p < 0.05$) and SCL-90 R GSI ($r = 0.32$, $p < 0.05$), PSI ($r = 0.36$, $p < 0.05$) scores. A negative correlation was found between infertility treatment duration and state of anxiety ($r = -0.29$, $p < 0.05$). Duration of marriage was positively correlated to both depression ($r = 0.35$, $p < 0.05$) and PSI ($r = 0.32$, $p < 0.05$).

There were no differences between infertile and control groups with respect to the means of the MMQ on the relationship or the sexual relationship subscales. However, the question regarding the effect of infertility on sexual life on the semi-structured questionnaire was negatively correlated to both infertility duration ($r = -.35$, $p < 0.05$) and infertility treatment duration ($r = -.31$, $p < 0.05$).

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Table 1. — *Sociodemographics of the patients and control group.*

		Study group Mean ± SD		Control group Mean ± SD		p
Age		28.74 ± 4.58		29.70 ± 3.76		> 0.05
Duration of marriage (years)		6.38 ± 4.26		7.57 ± 3.67		> 0.05
		n	(%)	n	(%)	
Education	Primary	27	54.0	18	45.0	
	High school	12	24.0	16	40.0	> 0.05
	Higher	11	22.0	6	15.0	
Profession	Civil servant	11	22.0	6	15.0	
	Freelance	4	8.0	6	15.0	> 0.05
	Housewife	35	70.0	28	70.0	
The longest	Country	5	10.0	–	–	
place lived	Small city	16	32.0	9	22.5	> 0.05
	Big city	29	58.0	31	77.5	
Income	Average	37	74.0	27	67.5	> 0.05
	Good	13	26.0	13	32.5	
Social support	Yes	38	76.0	32	80.0	> 0.05
	No	12	24.0	8	20.0	
Type of family	Nuclear	46	92.0	40	100.0	> 0.05
	Large	4	8.0	–	–	

Table 2. — *The BDI, STAI and SCL-90R findings of patients and control groups.*

	Study group Mean ± SD	Control group Mean ± SD	p
BDI	9.16 ± 6.38	5.92 ± 5.30	0.01*
STAI state	58.24 ± 6.30	55.60 ± 7.76	0.10
STAI trait	31.58 ± 6.09	29.1 ± 3.73	0.03*
SCL-90R			
Somatization	0.55 ± 0.54	0.31 ± 0.40	0.05
Obsessive-compulsive	0.56 ± 0.58	0.29 ± 0.37	0.01*
Interpersonal sensitivity	0.32 ± 0.53	0.15 ± 0.36	0.04*
Depression	0.61 ± 0.6	0.29 ± 0.33	0.005*
Anxiety	0.42 ± 0.44	0.19 ± 0.21	0.004*
Anger-hostility	0.35 ± 0.51	0.15 ± 0.16	0.02*
Phobic anxiety	0.54 ± 1.9	0.14 ± 0.18	0.37
Paranoid ideation	0.24 ± 0.53	8.19 E-02 ± 0.2	0.24
Psychosis	0.10 ± 0.34	2.25 E-02 ± 5.8 E	0.47
SCL-90R			
General Symptom Index (GSI)	0.40 ± 0.41	0.18 ± 0.16	0.002*
Positive Symptom Index (PSI)	22.76 ± 17.03	14.60 ± 11.71	0.02*
Positive Symptom Distress Index (PSDI)	1.41 ± 0.52	1.01 ± 0.31	0.00*

Responses given to the questions on the semi-structured questionnaire revealed that 66% of infertile women were disturbed when meeting families with children and 58% of women indicated that they felt pressure from their relatives.

Discussion

We found that depression scores were significantly higher in primary infertile patients. Our findings are similar to those of other studies in the literature [1, 9, 10].

The SCL-90R general symptom level and total number of positive symptoms were significantly higher in infertile women when compared to controls. Given subscales of the same scale, somatization, obsessions and compulsions, interpersonal sensitivity, depression, anxiety, anger and hostility scores were significantly higher in the infertile group. In a similar study [11] 30 infertile women were compared with 20 healthy women using SCL-90R and higher depression scores, and a slight increase in anger-hostility and interpersonal sensitivity scores were found in the first group.

A significant difference in trait anxiety was found between infertile women and controls. This was found to be comparable to former studies stating that anxiety increases in infertile women [12-14].

Our study evaluated the effects of age, educational level, employment, and income on psychological reactions to infertility. No significant relationship existed between age and BDI in the patient group. A similar finding was reported in another study [15]. Particularly striking in our study was that as the level of education increased, depression decreased, with anxiety increasing. In another study, it was found that the global stress level of highly educated infertile women was lower than that of less educated women [16]. In our study, as income level increased, depression decreased. Similarly, depression was less marked in working women, raising the possibility that the satisfaction derived from having a profession outweighed the impact of the dissatisfaction of not being able to have children.

It was thought that the duration of infertility and treatment would have an impact on the development of psychological symptoms [17]. It was reported that [3] the longer infertility lasts, the greater the degree of psychological dysfunction. Our study found a similar positive correlation between the duration of infertility and the rise of depression and general psychopathology. This is in contrast to the absence of a relationship between the duration of marriage and depression and psychopathology in the control group. In another study, which evaluated depression and anxiety levels in 107 infertile women, it was found that depression levels increased with the duration of treatment [18]. In contrast to both, another study discovered no relationship between depression and duration of treatment. Nevertheless, it did find a relation between the duration of infertility and depression [15].

State of anxiety was decreased the longer the treatment lasted. In a study evaluating 130 infertile couples, anxiety scores were found to decrease after nine months following the treatment in both men and women when compared to the initial stage of the treatment [12].

These findings show the importance of the duration of infertility and treatment in addition to education, economic status and work conditions in reaction to infertility.

In studies on marriage satisfaction, those showing that infertile couples have more satisfying relationships are the most noteworthy [19-21] since in the majority [4, 22, 23], small differences were found in comparison to controls. Some studies have concluded that infertility treatment negatively effects adjustment in the marriage, especially the sexual and affective dimensions of the relationship [24, 25]. The lack of a significant difference in the marriage test between the patient and control

groups in our study can be attributed to the fact that the infertile couples shared a common crisis for long periods of time. More possibly, the long-term treatment acts as a kind of contract for the continuation of the marriage [25].

It was concluded that the longer infertility and treatment lasted, the more negative the effects on sexual life were. In another study, similar findings were found, with 44.1% of the infertile women studied reporting to have experienced negative changes in their sexual lives [22].

Our findings on the relations of infertile women with relatives and others were compatible with those in the literature, e.g., anxiety when meeting families with children [26, 27] and feeling pressure from acquaintances [28].

Conclusion

These results suggest that infertility causes psychological morbidity in women, especially depression. Relationships and sexual difficulties also contribute to producing infertility-related stress. The duration of infertility and treatment were found to be important factors for the growth of depression and the general psychopathology in infertile women. Therefore, taking the psychological issues into consideration should maximize the benefit of therapy.

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