Psychological Disorders among Women with Primary Infertility and Fertile Women

S. Amani-Vamarzani1, Y. A. Dusti2, R. Hassanzadeh3

1- Islamic Azad University, Sari Branch, Sari, Iran.
2- Islamic Azad University, Sari Branch, Sari, Iran
3- Islamic Azad University, Sari Branch, Sari, Iran.

Corresponding author Email: s.amani_62@yahoo.com

Abstract
This study aimed to determine the prevalence and predisposing factors of psychiatric disorders among infertile in comparison to fertile women. By carrying out a descriptive-analytic study in Hazrat-e-Maryam Reproductive Center, 35 women entered the research. Symptom Checklist-90-Revised (SCL-90-R) test and structured researcher questionnaires were applied for all patients. For data analysis, SPSS-17 software system, chi-square and T-test were used. P-value <0.05 was considered significant. Results showed that 58% of infertile and 11.2% of fertile women had psychiatric disorders. Using SCL-90-R test, the highest mean scores among infertile women were found for somatization, psychoticism, interpersonal sensitivity and depression scales and the lowest scores were related to phobic anxiety and obsessive-compulsive disorders scales. Somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, aggression, paranoid ideation and psychoticism scales were significantly different between infertile and fertile women (p<0.05). Housewives were at a statistically significant higher risk for psychiatric disorders as compared to working women. The significantly higher prevalence of psychiatric disorders among infertile women mandates a more serious attention from gynecologists, psychiatrists and psychologists regarding to diagnosis and treatment of these disorders.

Keywords: Infertility, Psychiatric disorders, SCL-90-R

Introduction
Infertility is the failure to achieve pregnancy after a year of frequent, unprotected intercourse. It is prevalent in approximately 10 to 20% of couples. (Sadock and Sadock, 2000) It has been reported that 40% of infertilities were related to men, 40% to women and 20% to both sexes (Sadock and Sadock, 2003). In recent years, special attention has been paid to the psychological health of infertile couples. Grief reactions are common among infertile couples, however, these normal grief reactions may prolong into pathological grief leading to major depression (Williams and Zappert, 2006). Depressed patients exhibit low mood, loss of interest or pleasure in daily activities, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration (WHO, 2013). Prevalence is 5 to 12% for men and 10 to 25% in women (Sadock and Sadock, 2005). Major depression is 2-3 times as common in women as in men (Kessler, 2003). Depression may affect infertility treatment, follow-up and hope for the future; it may also influence the intensity and longevity of relationship of the affected couple (Ashkani et al., 2006). Lapane et al (1995) have reported that depression could also have role in the pathogenesis of infertility. Domar et al (1992) reported that among infertile women 37% had depressive symptoms on the Beck Depression Inventory (BDI), which was twice as common as in the control group. Results of an Iranian study in 2006 showed that depression is more common among infertile couples than fertile couples (p<0.015) (Ashkani et al., 2006). Nelson et al
(2008) used Center for Epidemiological Studies Depression Scale (CES-D) for depression and found that 19% of infertile women had moderate and 13% had severe depression. Drosdzol et al (2009) found that 35.4% infertile women scored above the cut-off for severe symptoms of depression, compared with 19.47% of fertile women. They found female gender, age over 30 years, lower level of education, lack of occupational activity, diagnosed male infertility and duration of 3-6 years of infertility as risk factors leading to depression and anxiety among infertile couples. Other researchers have explored lack of self-confidence, feeling of grievance, sin and disappointment as factors that may be related to infertility (Keye, 1984; Pfeffer and Woollett, 1983; Wright et al., 1991) Infertile women who have social support, positive personal characteristics, and have a satisfactory life with their spouse show fewer signs of depression (Domar et al., 1992). Infertility is a social onus for women in Iran, who are expected to have children early in their marital life. Women without children often feel incomplete and this results in pressure from their families and society, thus leading to psychological problems. On the other hand, counseling and supportive psychotherapy are very effective in decreasing the rate of anxiety among couples undergoing infertility treatment (Menning, 1975). SCL-90-R is a 90-item questionnaire designed to assess psychological symptoms and was initially used to show the psycho-cognitive aspects of psychological and somatic diseases after being developed by Derogatis et al in 1973. The test was subsequently altered based on clinical experience of psychoanalysis. In the study performed in Iran the validity of this test was more than 0.8 in all aspects except for aggression, phobic anxiety, and paranoid ideation and its construct validity indicates that it can be used as a means of screening or diagnostic tool in psychiatric disorders throughout (Bagheri et al., 1995). This study aimed to evaluate the prevalence of psychiatric disorders and their predisposing factors among infertile in comparison to fertile women. The scope of the study is focused on improving the mental health of infertile women.

Method

This cross sectional descriptive analytic study was performed on 35 infertile women attending the Infertility Clinic of Hazrat-e-Maryam Reproductive Center (Sari, Iran) and another 35 fertile women was selected to go to preschool centers. Participants were selected by systematic random sampling from the patient list by nurse receptionist in each clinic and participants who fit in the inclusion criteria of age between 20-44 years, infertility duration of >1 year and diagnosed with primary infertility. After being informed by a psychologist about the aims of the study a written consent was taken. Data were recorded in SCL-90-R and structured researcher questionnaires. The ninety items of SCL-90-R test assesses the following nine aspects, including: Somatization, Obsessive-compulsive disorders, Interpersonal sensitivity, Depression, Anxiety, Aggression, Phobic anxiety, Paranoid ideation and Psychoticism.

The response given for each item is in the form of a 5-point severity response scale reflecting, none, rarely, to some extent, mostly, and severe degrees with minimum and maximum scores being zero and four, respectively. Derogates in 1983 used internal validity and test-retest reliability to assess the 9 aspects of this test. The internal validity of the SCL-90-R test was satisfactory for nine aspects with the highest and lowest association being for depression (0.90) and psychotism (0.77), respectively. Test retest reliability ranged between 0.78 and 0.90 (16). In our survey the questionnaires were completed by a psychologist via a semi-constructed interview. After initial assessment and interview with 10 patients, primary data were obtained and organized and its reliability was confirmed by experts. The information derived from this questionnaire was first entered into an SPSS-15 software system and subsequently analyzed using independent T-test. P value <0.05 was considered significant.

Results and Discussion

A total of 35 fertile women 20-56 years old (mean =34.2± 8.4) and 35 infertile women (age range 23-42 years, mean=34.5 years; SD=5.0) were enrolled in this study. Duration of marriage was 2-31 years (mean=9.8 years, SD=4.2) in fertile women and 1-23 years (mean=8.72 years, SD=4.6) in infertile women. Table 1 shows demographic characteristics of the participants. The prevalence of psychological disorders was 58% in infertile and 11.2% in fertile women.
Table 1: Demographic Characteristics of Understudy Women

<table>
<thead>
<tr>
<th>Education</th>
<th>Fertile group (%)</th>
<th>Infertile group (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school and lower</td>
<td>57.1</td>
<td>62.9</td>
</tr>
<tr>
<td>Associate degree</td>
<td>8.6</td>
<td>14.3</td>
</tr>
<tr>
<td>License</td>
<td>31.4</td>
<td>22.8</td>
</tr>
<tr>
<td>Masters and higher Occupation</td>
<td>0</td>
<td>2.9</td>
</tr>
<tr>
<td>Housewife</td>
<td>53.2</td>
<td>59.6</td>
</tr>
<tr>
<td>Working woman</td>
<td>47.7</td>
<td>40.4</td>
</tr>
</tbody>
</table>

Table 2 shows the mean and standard deviation of the scores obtained in the SCL-90-R test. As shown in table 2, the highest mean scores among infertile women were found in respect to somatization (1.97), psychoticism (1.53), interpersonal sensitivity (1.52) and depression (1.46) with a mean coefficient equal to 1.43.

The highest mean scores among fertile women were in respect to obsessive-compulsive disorder (0.635), somatization (0.618), and psychoticism (0.541) and mean coefficient was 0.56 in this group. The scales related to somatization (p<0.035), obsessive-compulsive disorder (p<0.048), interpersonal sensitivity (p<0.000), depression (p<0.002), aggression (p<0.000), paranoid ideation (p<0.049) and psychoticism (p<0.000) showed a significant statistical difference between fertile and infertile women.

The results of this study show that 58% of infertile women and 11.2% of fertile women have psychological disorders, which are about five-fold among infertile women and indicates the importance of psychological aspects of infertility in Iranian ladies. In the study performed by Noorbala et al in 2007, the prevalence of psychological disorders was found to be about 44% in Tehran. Bjorn et al (1992) reported this figure to be 35.2% among infertile women. Lu et al (1995) reported that 83.8% of the disorders were mild, and 52% were moderate-severe in intensity among infertile women as compared to women in the control group and psychological disorders are significantly more prevalent among infertile women.

However, some reports indicate that there is no significant difference between the 9 scales of the SCL-90-R questionnaire among fertile or infertile women (Lu et al., 1995). Considering the result derived from the present study the prevalence of psychological disorders among infertile women in Iran is higher than western countries (Oddens et al., 1999) and lowers than eastern countries (Lu et al., 1995). The present study shows that infertile women obtained higher scores for all items such as somatization, psychoticism, interpersonal sensitivity, depression, anxiety and paranoid ideation. Comparing fertile and infertile women, there was no significant statistical difference between anxiety and phobic anxiety; while there was a significant difference with somatization, obsession-compulsion, interpersonal sensitivity, depression, aggression, paranoid ideation and psychoticism.

The present study showed that there is an association between psychological disorders and academic level of education, and duration of infertility. Also, women aged between 26-30 years are at higher risk of developing psychological disorders. The results of our study also show that the prevalence of psychiatric
disorders is associated with occupation being more prevalent in housewives as compared to working women. Noorbala et al (2007) reported that psychiatric disorders are more frequent among housewives than working women in general population in Iran. However, in the study performed by Bagheri et al (1995), the rate of psychiatric disorders was reported to be higher among working women. It seems that in this aspect, our findings show controversy with some other studies, which may be due to cultural differences or method of data collection. Regarding the results derived from this study, specialists must be aware of the importance of psychological factors in these patients and in the treatment of infertility. These subjects should be identified and psychiatric counseling, especially supportive therapy should be within the general framework of treatment for infertility in order to improve the mental health with a possible effect on fertility rate. Based on the findings of this study, we propose the following: Gynecologists should be made aware about the prevalence of psychiatric and personality disorders among infertile women and their need for being referred to psychologists or psychiatrists.

Counseling methods, especially supportive psychotherapy, should be considered for infertile women in order to improve their mental health and increase their chance of conceiving. Treatment of women in all infertility centers should be through the combined and close work of both gynecologists and psychologists and psychiatric counseling centers should be set up in these centers. The media should make the public, especially infertile women, aware about the importance of combined use of psychotherapy and routine treatment to treat infertility. This can help increased success rate of infertility treatment and can improve the quality of life of these patients. The media should make family members of infertile women aware about the importance of morality and the help and support they can give to these individuals to decrease mental stress.

The Social Welfare Society and other related centers should work in cooperation in order to facilitate the process of child adoption in these individuals. As the final conclusion considering the high prevalence of psychiatric disorders among infertile women, it seems that more serious attention is required from gynecologists, psychiatrists and psychologists regarding to these disorders. The use of psychotherapy, especially supportive methods, should be considered as part of the general therapeutic framework of infertility.

References


