

Study of Personality Disorders Among Fertile and Infertile Women and Some Predisposing Factors

Ahmad Ali Noorbala¹ M.D., Fatemeh Ramezanzadeh² M.D., Nasrin Abedinia² M.Sc., Seyyed Abbas Bagheri Yazdi¹ M.D., Mina Jafarabadi² M.D.

¹ Psychiatric and Psychology Research Center, Roozbeh Hospital, Medical Sciences / University of Tehran, Iran.

² Reproductive Health Research Center, Medical Sciences / University of Tehran, Iran.

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Abstract

Objective: This study aimed to determine prevalence and predisposing factors of personality disorders among infertile in comparison to fertile women.

Materials and Methods: By a descriptive- analytic study in Vali-e-asr Reproductive Health Research Center, 300 women entered the research. Eysenck personality (EPQ) and structured researcher questionnaires were applied for all patients. Demographic characteristics and predisposing personality factors were recorded and personality symptoms were scaled. For data analysis, SPSS-11-5 software system, chi-square and T-test were used. P-value <0.05 was considered significant.

Results: Based on EPQ, personality instability was significantly more frequent in infertile women in comparison to fertile women (P<0.001). Housewives are at higher risk of developing personality instability as compared to working women. This finding was also statistically significant (P<0.001).

Conclusion: Considering the high prevalence of personality disorders among infertile women, it seems that more serious attention is required from gynecologists, psychiatrists and psychologists for better treatment of these disorders. The use of psychotherapy, especially supportive methods, should be considered as part of the general therapeutic framework of infertility.

Keywords: Personality Disorders, Infertility, Eysenck personality test (EPQ)

Introduction

Special attention has been paid to psychological health of infertile couples during the last few years. Infertility is doubtlessly a severe distressful experience for many infertile couples. Freeman et al (1987) reported that 50% of couples considered infertility as the most disappointing experience in their lives. Another study performed by Mahlstedt et al (1987) showed that 80% of infertile couples described infer-

tility as a stressful or very stressful experience. Other researchers have paid special attention to fields such as health problems, lack of self-confidence, feeling of grievance, threat, depression, sin, disappointment, marital problems and they believed that the above factors are related to fertility (1-5). During the past few years, many researches have been devoted to anxiety and depression associated with in-vitro fertilization (IVF), especially during egg retrieval or embryo transfer which are mostly known to be due to the fear of treatment failure and lack of hope of having a child (6-9). It is shown that high levels of anxiety among women who conceive by IVF can lead to more complications in the newborn and even furthermore, the methods used in the treatment of

Correspondence:

Ahmad Ali Noorbala, Psychiatric and Psychology Research Center, Roozbeh Hospital, Kargar Ave., Tehran, Iran.

Tel: +98-2166939320 Fax: +98-2166937321

E-mail: noorbala@tums.ac.ir

infertility impose significant stress on these subjects (10). Overall prevalence of psychiatric problems among infertile couples has been estimated to be around 25%-60% (11-12).

Different factors including, flexibility and mood stability, or psycho-social and marital relationship during IVF therapy play important roles in helping women to cope with infertility and to bring about satisfaction towards infertility treatment methods (6, 13-15). On the other hand, counseling and supportive psychotherapy are very effective in decreasing the rate of anxiety among couples undergoing infertility treatment (3).

Since there is a relationship between the dynamics of anxiety-depression and the hypothalamus-pituitary-adrenal axis (7, 16), thus psychiatric intervention must be considered for couples who fail to conceive. In this way, the chance of pregnancy may rise by improving psychiatric problems.

Eysenck personality test is one of the most routinely used questionnaires for research studies and it determines introvert-extrovert, and stability-instability personalities. Its use in researches and on different groups indicates its validity. The questions in this questionnaire comprise the personality aspects of Eysenck's hypothesis and it has content validity. In the study performed by Pourshahbaz in 1993, the reliability of the test was calculated by the split-half

method and by obtaining internal consistency coefficient in a sample of 41 subjects. Results were 0.74 in extrovert scale and 0.82 in stability scale. Internal consistency coefficient was 0.69 in extrovert scale and 0.77 in stability scale (17). In Iran, no study has yet been performed on the prevalence of personality disorders among infertile women. The present study aimed to compare the prevalence personality disorders and their predisposing factors among fertile and infertile women. The results of this study can help to identify psychiatric disorders as well as to prevention planning and treatment. The scope of the study is focused on improving the mental health of infertile women.

Materials and methods

A cross sectional survey was performed on 150 infertile women attending the Infertility Clinic of Vali-e-Asr Reproductive Health Research Center and another 150 fertile women attending the Gynecology Clinic of Imam Khomeini Hospital between March 2005 and June 2006. The subjects were enrolled in the study based on the consequence of their arrival. After being informed by a psychologist about the aims of the study a written consent was taken. Data was recorded in Eysenck, and structured researcher questionnaires.

The questions in Eysenck's questionnaire comprise

Table 1: Demographic characteristics and medical history of understudy women

	Fertile group n (%)	Infertile group (%) n (%)
Education		
Primary school	25 (16.7)	33 (22)
Secondary school	38 (25.3)	33 (22)
High school	47 (31.3)	63 (42)
Academic degrees	40 (26.7)	21(14)
Occupation		
Housewife	104 (69.3)	119 (79.3)
Working woman	46 (30.7)	31 (20.7)
Psychological medical history		
History of visiting a psychiatrist	24 (16)	19 (12.7)
History of taking psychotherapeutic drugs	26 (17.3)*	19 (12.7)
Cause of infertility		
Female factor	107 (71.3)	
Male and female factor	31 (20.7)	
Unknown	12 (8)	
History of infertility treatment		
Yes	86 (57.3)	
No	64 (42.7)	

* Two patients had a history of taking psychotherapeutic medication without referring to psychiatrist.

Table 2: Personal and personality characteristics based on Eysenck test

	Infertile Group n (%)	Fertile Group n (%)
Personal type		
Introvert	75 (50)	76 (50.7)
Extrovert	75 (50)	47 (49.3)
Total	150 (100)	150 (100)
Personality type		
Stable	25 (16.7)	64 (42.7)
Unstable	125 (83.38)	86 (57.3)
Total	150 (100)	150 (100)

the personality aspects of Eysenck's hypothesis and it has content validity.

The researcher questionnaire assesses demographic, biographic, social, familial, disease and other predisposing psychological and personality factors and it is comprised of 34 open-ended and closed questions. The questionnaires were completed by a psychologist by a semi-constructed interview. After initial assessment and interview with 20 patients, primary data were obtained and organized and the test's reliability was confirmed by experts. The information derived from this questionnaire was entered into an SPSS-11-5 software system and analyzed. For data analysis chi-square and T-test were used. P-value <0.05 was considered significant.

Results

A total of 150 fertile women (age range 17-45 years, mean=31.6±5.5 years) and 150 infertile women (age range 8-42 years, mean= 27.7±5.2 years) were enrolled. Duration of marriage was between 1-28 years (mean=12±5.5 years) in fertile women and between 2-25 years (mean=7±4.6 years) in infertile women. Duration of infertility was between 1-25 years (mean= 6.1± 4.4 years). Table 1 shows some of the demographic characteristics of the groups under study.

Using Eysenck test to determine the introvert and extrovert aspects of personal characteristics of the subjects, 50% of infertile women were found to be introverts and 50% were extroverts, whereas among fertile women 50.7% were introverts and 44.3% were extroverts ($x^2 = 0.01$, $df = 1$, $p = 0.91$). Eysenck test showed that personality instability is more common among infertile women than fertile women, which is statistically significant ($x^2 = 24.3$, $df = 1$, $p < 0.001$). According to the findings of the above table, most

stress factors among infertile women are related to the reaction of other people, feeling of loneliness, and treatment for infertility. Financial factors ($x^2 = 0.02$, $df = 1$, $p = 0.9$) and sexual factors ($x^2 = 8.8$, $df = 1$, $p = 0.05$) are among the most important predisposing stress factors causing psychological and personality disorders. Eysenck test also showed that there was a significant statistical relationship between personality disorders (stability or instability) and being a housewife ($x^2 = 24.6$, $df = 1$, $p < 0.001$). In other words, being a housewife can affect the prevalence of stable or unstable personality disorders, however, this was not statistically significant ($x^2 = 0.9$, $df = 1$, $p = 0.33$). The relationship between personality disorders and duration of infertility (using Eysenck test) is statistically significant. Thus, duration of infertility is related to introvert or extrovert personalities ($x^2 = 10.9$, $df = 4$, $p = 0.05$). In addition, results show that there is no relationship between level of education, cause of infertility or history of medical treatment for infertility and psychological or personality disorders.

Discussion

The results of this study show that among infertile and fertile women 50% and 50.7% are introverts respectively, remaining about 50% extroverts in each

Table 3: Stress factors among infertile women

Stress factors	n (%)
Financial problems	72 (48)
Sexual disorders	42 (28)
Marital problems	48 (32)
Divorce	47 (31.3)
Second marriage	49 (32.7)
Family intervention	51 (34)
Identity disorder	76 (50.7)
Social acceptance	42 (28)
Feeling of loneliness	111 (74)
Others attitude	122 (81.3)
Treatment of infertility	91 (60.7)
Change of behavior of husband	41 (27.3)
Change in interest of husband	39 (26)
Woman named as infertile	59 (39.3)
Feeling of inability to reproduce	51 (34)
Lack of hope	62 (41.3)
Incomplete family	78 (52)
Lack of safety and support	21 (14)
Annoyance	28 (18.7)
Women wanting a child	63 (42)
Husband wanting a child	32 (21.3)
Feeling of motherhood	30 (20)
Future problems	12 (8)

Table 4: Psychiatric disorders by occupation

	Infertile group		Fertile group	
	stable n (%)	Unstable n (%)	stable n (%)	Unstable n (%)
House wife	13 (8.7)	106 (70.7)	41 (27.4)	63 (42)
Working woman	12 (8)	19 (12.6)	23 (15.3)	23 (15.3)
Total	25 (16.7)	125 (83.3)	64 (42.7)	86 (57.3)

group. Also 83.3% of infertile women had unstable personality while 57.3% of fertile women had unstable personality. The results of this study show that the most important stress factors which cause psychological and personality disorders in infertile women include the reaction of relatives and friends, feeling of loneliness, and infertility treatment. The findings of our study are in agree with those of Lu (1995) and Wischmann (2002) (18,19). Financial and sexual factors can also act as important factors in psychological and personality disorders of infertile women (20). The present study showed that there is an association between psychological and personality (instability) disorders and high school level of education, and duration of infertility (using Eysenck test to identity introvert to extrovert personality). Women aging between 26-30 years and those with introvert personality were shown to be at higher risk of developing psychological disorders in present study.

The result of our study also shows that personality instability was more prevalent in housewives as compared to working women Regarding the higher prevalence of personality disorders among infertile women 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 this way the rate of psychiatric symptoms will fall and mental health will improve leading to a probable increase in fertility rate. Based on the findings of this study, we propose the following:

1. Gynecologists should be made aware about the prevalence of psychiatric and personality disorders among infertile women and their need for referral to psychologists or psychiatrists.
2. Counseling methods, especially supportive psychotherapy, should be considered for infertile women so as to improve their mental health and increase their chance of conceiving.
3. Treatment of infertile women in all infertility cen-

ters should be through the combined and close work of both gynecologists and psychologists and psychiatric counseling centers should be set up in these centers.

4. 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 increase success rate of infertility treatment and can improve the quality of life of these patients.
5. 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.
6. The Social Welfare Society and other related centers should work in cooperation in order to facilitate the process of child adoption in these individuals.

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