

A Survey of Psychosexual Disorders in Infertile Women Referred to the Zainabiee Infertility Center of Shiraz University of Medical Sciences

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Abstract: Dreams of having a child is a universal need and grief of infertility is considered as a great crisis in life. Lack of reproductive ability, attitude towards this problem and treating consideration is stressful while can cause serious psychological problems and severe negative effects on marital relationships. This study by regarding the significant prevalence of infertility and its psychological and economical burden on society has set itself, the objective of investigating the impact of infertility on psychosexual disorders in infertile women. In this study, 150 qualified infertile women were studied within 4 months. Data collection instruments in this study were three public health survey questionnaires SSQ, MSQ and GHQ for each patient. Collected data were analyzed using the SPSS software (16.5). Descriptive statistical procedures and ANOVA were employed. Results from this study indicated that 24.6% of the subjects had no evidence of depression, 30% symptoms of mild depression, 32% suffered from moderate depression and 13% had severe depressive symptoms. Spouse's income and education level had significant correlation with the prevalence of depression. No significant relationship between age and anxiety and depression scores was found ($p>0.05$). Levels of life satisfaction in women was significantly low ($p<0.05$). Infertility diagnosis created a clear negative impact on women's relationships with their husbands ($p<0.05$). Other than mechanism underlying depression, a series of specific risk factors associated with infertility problems in infertiles, can make infertile couples more prone to psychological problems. Reducing emotional common problems among infertile women and providing counseling services parallel to medical treatments in order to reduce these problems, is considered important.

Key words: Economical burden, infertile women, psychology, grief, child

INTRODUCTION

Infertility which has been defined as reproductive inability after passing one year from regular intercourse and without using reproduction preventive measures (Speroff, 2005) is actually a complex crisis of life that is treating and stressful from the view point of psychology in such a way that many researchers call this disorder as public sorrow due to its psychological consequences (Saghfi and Tofani, 2004). In spite of the large medical progress, still a noticeable percentage of couples are facing with infertility problems (Berek, 2007). The prevalence of primary infertility in Iran is estimated to be 3.4% (Vahidi *et al.*, 1385) and according to the World Health Organization (WHO), there are 80.0 million applicant for infertility treatment in the world (Lau *et al.*, 2008). Making an effort to become mother, large therapeutic expenses, long and tedious treatment process and hesitation and distress along with

infertility will put individuals at a wide emotional slope (Lee *et al.*, 2001). On the other hand, the treatment of infertility, especially in unsuccessful cases in which the repetition is necessary acts as a severe factor of stress in the life of infertile couples applicant for treatment (Beutel *et al.*, 1999). Infertility has significant effects on psychological factors (Ramezanzadeh *et al.*, 2004). It seems that infertility causes anxiety and depression and creates serious problems in the relations of couples among which reduction of relation with each other and with relatives, difficulty in sexual activity and taking decision in the life could be mentioned (Lowdermilk and Perry, 2004).

The fact that women divulge higher rates of psychological distress clearly in facing infertility comparing with men has been proved in various studies (Beutel *et al.*, 1999; Phipps, 1993; Adashi *et al.*, 2000). Several studies that have been carried out to survey the effect of infertility on the behavior of couples and its

emotional function indicate negative effects of this disorder on the relation in between couples that have emphasized on more impression of women in this respect (Cwikel *et al.*, 2004; Lau *et al.*, 2008). Meantime, some studies have stated that long-term following up of infertility that requires the complete cooperation of couples during treatment causes the creation of more sincerity and deeper relationship between wife and husband (Burns and Covington, 1999).

Sexual matters and their relative disorders are among the under studied fundamental points in the process of evaluation of infertile couple. A desirable sexual relationship could maximize the fertility chance. It seems that the prevalence of sexual disorders is more among infertile couples (Vahidi *et al.*, 1385; Burns and Covington, 1999) and the resulted exciting factors from sexual disorders may cause the infertility (Nene *et al.*, 2005). On the other hand, it seems that infertility causes the incidence of sexual disorders among infertile wife and husband (Berek, 2007). A research carried out by Lee *et al.* (2001) in Taiwan indicated that about 50.0% of infertile couples after infertility diagnosis declared a reduction in their sexual satisfaction and motivation rate. Some studies indicate that the sexual satisfaction and function of infertile couples improves during treatment period and some other face with significant reduction comparing with normal population (Bahrami *et al.*, 1386; Mazure *et al.*, 1992).

The aforesaid contradictory researches put researchers to plan the present research among infertile women referred to Zeinabieh Infertility Center of Shiraz University of Medical Sciences with the aim to survey the effects of infertility on general health status, psychosexual disorders and sexual problems of infertile women.

MATERIALS AND METHODS

In this cross-sectional study, the infertile women referred to the Zeinabieh Infertility Center of Shiraz were studied. Then 150 qualified infertile women referred during September to December, 2011 entered in the study by convenient sampling method. The age condition of under studied samples was between 20-40 years, infertility was due to the primary feminine factors and at least 3 years was passed from their marriage.

Three questionnaires were used in this study as data collection instruments. The first questionnaire was GHQ (General Health Questionnaire) which is designed to recognize psychological disorders. This questionnaire includes four sub-scale symptoms of semi-physical, anxiety, social function and depression. This

questionnaire is consisting of 28 questions of 4 choices. Nonparametric method was used in this study for scoring and the total score was the criterion. The minimum score was 0 and the maximum was 28 and the cut off score in this method was considered as 6.

The second and third questionnaires were MSQ (Marital Satisfaction Questionnaire) and SSQ (Sexual Satisfaction Questionnaire), respectively. MSQ was evaluating the rate of mutual understanding of couples in 16 items. This analysis was carried out in three different domains including satisfaction of wife from a life without child (8 questions), satisfaction of families of woman and man and accepting the infertility situation of couples by families (6 questions) and finally, the satisfaction degree of woman from the rate of created effects due to the infertility (2 questions). In this questionnaire, more obtained score was an indication of maximum dissatisfaction degree and scoring limit was between 16-80.

The 7 propounded questions in SSQ were divided into two sub-groups. About 4 questions were regarding the general satisfaction from sexual relationship of couples that evaluated the degree of satisfaction from the number of sexual intercourse, the number of orgasm and the rate of sexual interest and attraction during sexual relationship and the other three questions surveyed the rate of emotional tension of individual during sexual intercourse. Five degree Likert scale was the criterion of this questionnaire in which the highest score was indicating the lowest rate of sexual satisfaction.

The psychometric specialties in MSQ and SSQ have been confirmed many times. Lee and Sun studied the reliability and validity of these two questionnaires in the year 2000 and confirmed their validity. The Cronbach's alpha for the MSQ and SSQ was 80.0 and 92.0%, respectively in this study.

Collected data were finally analyzed using SPSS software (version 16.5), descriptive statistical procedures and ANOVA.

RESULTS

In this research, 150 infertile women with mean age of 31.2 years were studied whose demographic information have been shown in Table 1. These women were under treatment for an average period of 2.1 years (standard deviation, 1.0 ± 1.2). About 46.7% of under studied women had the education level of diploma and above. The rate of income of 52.7% of subjects was mentioned to be at medium level.

Out of 150 under studied women, the score of general health test of 5 women was determined to be under cut off

Table 1: Demographic information of infertile women

Infertile women	Percentage	Significant level
Education		
Illiterate	7.3	0.87
Under diploma	20.4	
Diploma to B.Sc	42.3	
M.Sc and above	4.4	

Table 2: The obtained results from MSQ

Variables	Low (%)	Medium (%)	Good (%)
The rate of satisfaction from life without child	52.6 (79 subjects)	26.6 (40 subjects)	20.6 (31 subjects)
Acceptance by relatives	54.0 (81 subjects)	6.6 (10 subjects)	39.9 (59 subjects)
Satisfaction from expression of problems	78.0 (117 subjects)	22.0 (33 subjects)	0.0 -

point (score of 6). In this study, 37 subjects had no any evidence of depression, 45 subjects (30.0%) had mild symptoms of depression, 48 subjects (32.0%) suffered from moderate depression and 20 of them (13.0%) had severe depression symptoms.

Surveying on the rate of depression of patients according to their education level showed that the prevalence of depression was more among women with lowest education level (illiterate or primary), as well as those with highest education level (M.Sc and Ph.D). Also, this rate was less among women whose husbands had a better financial status. The prevalence of depression was significantly more among women who were living with their parents or families of their husbands at one place comparing with other women ($p = 0.002$).

The data of this study indicated no significant relationship between age of women and their score of anxiety and depression ($p > 0.05$). Most of under studied subjects (62.8%) were sensitive towards social acceptance and attitudes of relatives and believed that their relationship with relatives will be improved by elimination of infertility and will have more control on their life. The 35.7% of research population expressed that infertility has caused negative perception about themselves and has reduced their satisfaction from their life.

Studying the obtained data from MSQ showed that the rate of satisfaction from life was significantly low among under studied women in such a way that 61.6% of them had dissatisfaction feeling about their marriage ($p < 0.05$). The acceptance of subjects by families was very low from the view point of under studied women ($p < 0.01$) and the degree of satisfaction of women from the expression of problem was low in 78.0% of subjects (Table 2).

Change of conditions among under studied women after infertility diagnosis put negative effect on their sexual relationship with their husband as follows:

The satisfaction from sexual relationship in these women reduced by 50.0% comparing with that of before

disease diagnosis ($p < 0.05$), the number of times of intercourses reduced by 32.0%, libido among such women reduced by 67.0%, lack of feeling of orgasm in more than half of sexual relationships was reported to be 60.0% and feeling of dissatisfaction from sexual relationship was reported in 57.0% of women ($p < 0.05$).

DISCUSSION

Infertility is a bio-psycho-social phenomenon meaning that psycho-physio-environment aspects and inter personal relationship are in interaction with each other. Therefore infertility could not be merely accounted as disturbance in the function of body organs.

The results obtained from this study are indicating the existence of a significant relationship between infertility and psychological disorders among women in such a way that the score of general health test of five under studied subjects were reported to be under cutoff point. While studying the medical files and according to the statements of these patients, no evidences of psychological disorders were found before infertility diagnosis.

According to the general health test, 75.0% of under studied women in this research possessed some degree of depression. This rate in the study of Sargolzaee *et al.* (2001) in the surveying of patients who were under infertility treatment for a period of 4.2 years was reported to be 96.7%. It seems that the more prevalence of depression in the study of Sargolzee *et al.* (2001) comparing with the research was related to the increased treatment duration. This is the case that Daniluk *et al.* (1987) is propounding this claim that no so significant difference exists between infertile and normal population. Surveying on the rate of depression of patients according to their education level showed that depression had more prevalence among women whose education level was very low or very high.

Haririan in their study carried out at Uromieh in the year 2009 reached to a contradictory results comparing with the study. Higher level of education in the mentioned study had relationship with the reduction of severity and prevalence of depression among infertile women. The available cultural difference in these two regions of the country may be the cause of incidence of such contradiction.

Enjoyment of husband from a higher occupational condition, especially if it is accompanied with more income will increase the peace and security feeling of wife who is involving with expensive and often long duration treatments. In confirmation of this matter we can point out to the study of Khayata *et al.* (2003) who have also

propounded that enormous treatments and financial inability to carry out such treatments are factors of reducing the quality of life and increasing the prevalence of depression.

Considering that 62.8% of infertile women in the study were sensitive about social acceptance by relatives and had feeling of relative excommunication, it is specified that infertility is not merely a medical problem but most dimension of the life of infertile couples are exposed to be affected by this crisis. Beliefs, attitudes and imaginations along with infertility cause the creation of bases for seclusion, anxiety and depression in infertile woman. The obtained depression and anxiety from infertility seems to be resulted from the attitude of these persons about social acceptance and fear of the lack of life control.

According to the statement of infertile women, delay in pregnancy causes the creation of curiosity in family and relatives and increasing their pressure causes the creation of anxiety in couples resulted in the separation of these persons from friends and families and this defective cycle will cause the excitant reaction to the infertility to become more severe.

Dissatisfaction from marital life and the disturbance in the relationship between couples among under studied infertile women was significantly high ($p < 0.05$). Reduction of the sexual desire and negative attitude towards it were another produced results from this study. The view point of couples regarding sexual relationship seems to be the fundamental cause of this problem. Since, couples consider the product of sexual relationship is the pregnancy of woman, reproductive inability will be resulted in having negative attitude towards the sexual relationship and causes inconsideration of their natural need and accept the sexual relationship as a futile and nonproductive relationship. A study carried out by Mohammadi and Farahani (2001) has pointed out this result.

CONCLUSION

Paying attention to the fact that the infertile women have been surveyed from several aspects in this study and have been evaluated in various backgrounds and considering the review of previous studies that have been carried out in this regard with a high degree of confidence, researchers can state that specifying the prevalent emotional problems among infertile women and presenting consultative services considering the education level, social class and other demographic factors along with doing medical treatments with the aim to reduce infertility problems are of great importance. It is clear that having

strong mentality and psychological health will make individuals more resistant against problems. Carrying out the psychotherapy techniques at infertility clinics, in addition to the reduction of psychological disorders like anxiety and depression causes the promotion of physical health and increases the rate of achieving successful treatment.

REFERENCES

- Adashi, E.Y., J. Cohen, L. Hamberger, H.W. Jr. Jones and D.M. de Kretser *et al.*, 2000. Public perception on infertility and its treatment: An international survey. *Hum. Reprod.*, 15: 330-340.
- Bahrami, N., N. Sattarzadeh, F.R. Kochsaraee and M. Ghojazadeh, 1386. Sexual relationship and depression between fertile and infertile couples. *Fertil. Infertility*, 1: 52-59.
- Berek, J.S., 2007. Berek and Novak's Gynecology. 14th Edn., Lippincott Williams and Wilkins, New York, USA., ISBN-13: 9780781768054, Pages: 1671.
- Beutel, M., J. Kupfer, P. Kirchmeyer, S. Kehde and F.M. Kohn *et al.*, 1999. Treatment-related stresses and depression in couples undergoing assisted reproductive treatment by IVF or ICSI. *Andrologia*, 31: 27-35.
- Burns, L.H. and S.N. Covington, 1999. Infertility Counseling: A Comprehensive Hand Book for Clinicians. CRC Press, New York, USA., Pages: 152.
- Cwikel, J., Y. Gidron and E. Sheiner, 2004. Psychological interactions with infertility among women. *Eur. J. Obstetrics Gynecol. Reprod. Biol.*, 117: 126-131.
- Daniluk, J.C., A. Leader and P.J. Taylor, 1987. Psychological and relationship changes of couples undergoing an infertility investigation: Some implications for counsellors. *Br. J. Guidance. Counsel.*, 15: 29-36.
- Khayata, G.M., D.E.E. Rizk, M.Y. Hasan, S. Ghazal-Aswad and M.A.N. Asaad, 2003. Factors influencing the quality of life of infertile women in United Arab Emirates. *Int. J. Gynaecol. Obstet.*, 80: 183-188.
- Lau, J.T.F., Q. Wang, Y. Cheng, J.H. Kim, X. Yang and H.Y. Tsui, 2008. Infertility-related perceptions and responses and their associations with quality of life among rural Chinese infertile couples. *J. Sex Marital Ther.*, 34: 248-267.
- Lee, T.Y., G.H. Sun and S.C. Chao, 2001. The effect of an infertility diagnosis on the distress, marital and sexual satisfaction between husbands and wives in Taiwan. *Hum Reprod.*, 16: 1762-1767.

- Lowdermilk, D.L. and S.E. Perry, 2004. *Maternity and Women's Health Care*. 8th Edn., Mosbey-Elsevier, Sydney, Australia, Pages: 1274.
- Mazure, C.M., J.E. Takefman, A.A. Milki and M.L. Polan, 1992. Assisted reproductive technologies: II: Psychologic implications for women and their partners. *J. Women's Health*, 1: 275-281.
- Mohammadi, M.R. and F.K.A. Farahani, 2001. Emotional and psychological problems of infertility and strategies to overcome them. *Fertil. Infertility*, 2: 33-39.
- Nene, U.A., K. Coyaji and H. Apte, 2005. Infertility: A label of choice in the case of sexually dysfunctional couples. *Patient Educ. Counseling*, 59: 234-238.
- Phipps, S.A., 1993. A phenomenological study of couples infertility: Gender influence. *Holistic Nurs. Pract.*, 7: 44-56.
- Ramezanzadeh, F., M.M. Aghssa, N. Abedinia, F. Zayeri, N. Khanafshar, M. Shariat and M. Jafarabadi, 2004. A survey of relationship between anxiety, depression and duration of infertility. *BMC Women's Health*, Vol. 4. 10.1186/1472-6874-4-9
- Saghfi, N. and H. Tofani, 2004. Mental factors and duration of treatment for infertile women. *Ofoghe-Danesh*, 9: 10-12.
- Sargolzaee, M.R., F. Mohareri, H.R. Arshadi, K. Javidi, S. Kamrani and M.R. Fayyazi-bordbar, 2001. Psychosexual and depression disorders in infertile female referring to Mashhad Infertility Treatment Center. *Fertil. Infertility*, 2: 46-51.
- Speroff, L., 2005. *Clinical Gynecologic Endocrinology and Infertility*. 7th Edn., Lippincott Williams and Wilkins, New York, USA., ISBN-13: 9780781747950, Pages: 1134.
- Vahidi, S., A. Ardallan and K. Mahd, 1385. Incidence of primary infertility in the Islamic Republic of Iran in 1383-84. *Fertil. Infertility*, 1385: 243-251.