

# An investigation into the effects of psychological consultation on the sense of satisfaction of the infertile women referring to the infertility centers of Tabriz

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## ABSTRACT

**Background and Aim:** Infertility is a major crisis in life which causes mental stress. Studies have shown that infertility can negatively influence the sense of satisfaction. The effect of infertility on marital and sexual functioning, health related quality of life (QOL), and the acceptability of the treatment modalities is poorly researched area in Iran. The present study is aimed to investigate the effects of psychological consultation on the sense of satisfaction of the infertile women. **Methods:** In an experimental study, 90 women referred to the Alzahra Educational and Medical Center and Tabriz Madar Clinic were randomly divided into case and control groups. First, The Personal Information Questionnaire and the Temporal Satisfaction with Life Questionnaire were used to collect information about the samples. The samples of the case group received a 90-minute psychological consultation once a week for 8 weeks. Second, both groups completed the same questionnaires two weeks after the end of consultation sessions. Accordingly, the rate of life satisfaction in the past, present and future was compared, using T-Test, paired T-Test and Chi-Square Tests. **Results:** The results showed there was a significant difference between the case and control groups in terms of past, present and future life ( $P < 0.05$ ). The rate of life satisfaction in the case group increased after the psychological consultation sessions. In other words, the behavioral, cognitive and emotional consultation can decrease the negative aspects of infertility. **Conclusion:** According to the results, an increase in the satisfaction of infertile women in the case group before and after psychological consultation in comparison with control group was significant. Moreover, psychological consultation increased the life satisfaction in infertile women.

**Keywords:** Infertile women, life satisfaction, psychological consultation

## Introduction

Reproduction is one of the basic needs of human beings.<sup>[1]</sup> However, infertility is considered a complicated crisis in life which has elaborate social, biological and mental effects on the couples.<sup>[2]</sup> Infertility affects the couples deeply which is accompanied by tense situation.<sup>[3,4]</sup> Infertile women not only have to deal with several physical problems, but also they need to address the effects of psychological interventions. Once addressed these issues, women can increase their life

satisfaction. In most cultures, fertility is important, and the desire to have a child has been one of the most basic human motives. It is not only disappointing but also devastating for couples who want a child but do not have the ability of that.<sup>[5]</sup> In general, infertility means that a couple have an unprotected close proximity for one year and that pregnancy cannot be achieved.<sup>[6]</sup> Approximately about 85%-90% of healthy couples get pregnant per year. So it is common that we could see infertility in about 10%-15% of them. According to Vahidi *et al.*<sup>[7]</sup> it was found that about a quarter of Iranian couple's experience primary infertility during their common life. As it is deduced from these figures, infertility

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is gradually increasing so that, without leaving visible traces of work, it may put us in the middle of an epidemic of this problem.<sup>[8]</sup> Infertility is a biological and psychological problem.<sup>[9,10]</sup> Donkor and Sandall<sup>[11]</sup> reported that, infertility may cause a lesion in the lives of infertile people, and this feeling of lesion or disturbance leads to stress. Women described infertility as the most stressful event in their lives.<sup>[12]</sup> Fortunately, advances in the field of infertility have led to the emergence of fertility methods.<sup>[13]</sup> Patients undergoing infertility treatment also suffer from a lot of mental stress.<sup>[14]</sup> Rao<sup>[15]</sup> expressed that having psychological problems and stress makes couples less likely to cope with infertility problems. Ramezanzade *et al.*<sup>[16]</sup> reported that in some cases, mental disturbances are so high that suicide attempts are sought after unsuccessful treatments.

Alizade *et al.*<sup>[17]</sup> reported that the psychological stress of patients undergoing fertility treatment is more than that of physical stress. And in similar case study, Chehreh *et al.*,<sup>[18]</sup> stated that, most of these patients reported symptoms of depression, anxiety, anger, and tingling after their unsuccessful treatment, that these symptoms persist for a long time and may cause depressive. Medical fertility treatment is one of the most expensive and most invasive treatments, and researches showed that the more stressful women that start with these treatments, the probability of quitting of these treatments increases due to non-pregnancy. From where, the pregnancy rates are expected to increase with continued treatment, it seems to be a good strategy to reduce stress during treatment.<sup>[19]</sup>

Some researchers like Stefanac<sup>[20]</sup> and Gordon and Dimatina<sup>[21]</sup> reported that have talked about the possibility of to reducing stress using two methods of medication and the use of Alternative Health Services. Relaxation techniques are one of the effective methods for this purpose and have been widely used.<sup>[22]</sup> This using of this technique your body can fight stress better when it is fit.<sup>[23]</sup> In such a same study, Gill *et al.*,<sup>[24]</sup> in Australia have measured the effect of relaxed tone technique on the level of anxiety and stress in undergraduate students. The results of this study showed that relaxation technique reduced anxiety and stress and increased self-esteem among these students. Kalkhoran *et al.*,<sup>[25]</sup> also conducted a study in Tehran on the comparison of anxiety, depression and sexual satisfaction in two infertile and fertile women. The results of this study showed that infertile women require a lot of mental health care. It is also considered to be worthwhile to care mental health improvements in infertile women through supportive measures. Thus, from where the infertility, stress of infertile women is enhancing and the success of treatment in infertility is reducing, infertile women should be fully prepared. Therefore, one of the most important tasks of the therapist and health services is to eliminate the stress of infertile women in the treatment stages in order to obtain a better result from the treatment measures.<sup>[26]</sup> Given the fact that fertility is of vital cultural and social importance in Iran, the present study aimed to investigate the effects of psychological consultation on the life satisfaction of infertile women.

## Materials and Methods

In this experimental study, the participants were provided with psychological consultation. Moreover, the effects of psychological consultation on the sense of satisfaction was evaluated by analyzing the questionnaires completed by the samples. The sample size consisted of all the infertile women referring to the Alzahra Educational and Medical Center and Tabriz Madar Clinic in 2010. The samples were randomly divided into case and group groups. In total, 90 women participated in this study, 45 of whom were randomly assigned to the control group. In the present study, the information was collected by The Personal Information Questionnaire and The Temporal Satisfaction with Life Questionnaire. The latter includes 15 items and three minor scales which indicate the satisfaction with past, present, and future life.

The reason why The Temporal Satisfaction with Life Questionnaire was used in this study can be attributed to the fact that its validity and reliability are proved. Additionally, this questionnaire allows the researcher to analyze the patients' satisfaction with past, present and future life.<sup>[27]</sup>

The questions were answered based on a 7-degree Lickert Scale with "completely disagree" (1 point) and "completely agree" (7 points). The marks can vary from 15 to 105 points. The total satisfaction with life can be calculated by satisfaction with past and present life, using The Temporal Satisfaction with Life Questionnaire.<sup>[28]</sup> The Cronbach's Alpha was 0.93.<sup>[27]</sup> Seif *et al.*,<sup>[28]</sup> provided a proof for the constructive validity of the scales. The associational coefficients varied from 29% to 84%, all of which were significant ( $P < 0.0001$ ). The Cronbach's Alpha was used to measure the internal stability of this scale.

The present study measured the life satisfaction of the participants by the so-called questionnaire. Then, the case group participated in 8 sessions of psychological consultation. Each session lasted for 90 minutes. These sessions were based on behavioral, emotional and cognitive criteria. Two weeks after the end of the consultation sessions, both groups were analyzed by the same questionnaire. Then, all the questionnaires were analyzed by the SPSS (version 16). The data were described by several variables (tables, average, distribution of relative redundancy and scale deviation). Accordingly, the deductive statistical tests such as T-Test, Chi-Square Test and paired T-Test were used to analyze the data. The coefficient and the level of significance were 95% and 0.05, respectively. The findings were presented in a table.

## Results and Discussion

The results showed that there was no significant difference ( $P > 0.05$ ) between the members of the two groups regarding the educational level of the couples, their occupation, age, income, spouse support, average time of infertility treatment, prevalence of infertility in the family, history of surgery, etc.

The findings [Table 1] indicated that the sense of satisfaction of the control group with their past life was 22.78+– 6.59. They were subjected to several mental problems during the diagnosis, treatment and illness.<sup>[1]</sup>

The infertility treatment may have several physical, economical, mental and emotional problems.<sup>[29]</sup> These problems can significantly decrease the patients' self-confidence and self-image. Moreover, both men and women are thought to be threatened.<sup>[30]</sup> For most of the people, infertility is a major crisis which causes mental stress and a range of negative mental reactions such as depression, stress, anxiety, anger, embarrassment, jealousy, loneliness, disappointment, isolation, low self-esteem, low mental stability, lack of sexual identity, decreased mental health and low life satisfaction.<sup>[3,4,31]</sup> It is estimated that the prevalence of infertility among the couples is 25%–60% and about 80% of the infertile couples are afflicted with at least one psychological disorder.<sup>[32-34]</sup> 50% of the women and 15% of the men consider infertility the most stressful situation in life. Dumar, Zafer, Mester and 63% of the participants who were divorced, considered infertility more unbearable than divorce.<sup>[1]</sup>

Although there are no definitive details about infertility, the world health organization (WHO) reports that the global infertility rate is 10%–15%.<sup>[11]</sup> The number of infertile people has tripled.<sup>[35-38]</sup> Accordingly, approximately 80 million people are suffering from infertility throughout the world. However, it is estimated that of all ten people, at least one suffers from primary or secondary infertility.<sup>[39]</sup> According to the world health organization (WHO), more than 2 million people are suffering from infertility in Iran, out of 70 million people.<sup>[2]</sup> It is also estimated that the prevalence of primary infertility was 24.9% in 2004-2005.

Therefore, infertility is not only a physical illness which needs medical interference, but also requires medical care to help people better adapt with the situation.<sup>[40]</sup> One of the most important factors influencing the social-mental adaptability is the sense of satisfaction with life. Given the fact that emotion and cognition are two inseparable components of human beings, it is quite evident that the sense of satisfaction is affected by past and present experiences, expectations, prediction of the future experiences and the emotions involved.<sup>[28]</sup> Studies have shown that there is an elaborate relationship between sense of satisfaction and several psychological states such as depression, self-esteem and hope. Furthermore, the sense of satisfaction is regarded as a clear sign of one's successful adaptability with various changes in life. Studies have also indicated that infertility

is associated with mental to some extent. Therefore, it negatively influences happiness and life satisfaction.<sup>[41,42]</sup>

Thus, the patients need to be provided with different types of treatments. Given the fact that the mental needs of infertile couples play a vital role in the successful infertility treatment, the relationship between couples could be affected during the treatment, particularly if one of the spouses needs to be supported and understood by the other. Furthermore, it is argued that psychological consultation and mental support can reduce the psychological symptoms, increase the mental health and also enhance the rate of fertility among the infertile women.<sup>[43]</sup> Over the past decades, studies have emphasized on the necessity of consultation and mental interventions in order to treat infertile women.<sup>[1]</sup> In a study entitled "An investigation into the effectiveness of group, cognitive, emotional and behavioral consultation on the mental health of infertile women in Tehran", Manuchehri *et al.*<sup>[11]</sup> investigated 14 primary infertile women who underwent treatment. The results showed that there was a significant difference between the pre-test and post-tests stages regarding character disorders. Accordingly, the treatment could decrease the character disorders in the case group. Further, the effects of this treatment lasted for 3 months. However, this was not true for the control group. The results indicated that in the case group, the rate of life satisfaction and the rate of happiness were  $24.84 \pm 6.83$  and  $26.02 \pm 5.56$ , respectively. The average life satisfaction for the control and case group was 72.6 and 71.77, respectively. According to T-Test, there was no significant difference between the case and control groups in terms of life satisfaction ( $P > 0.05$ ,  $t = 0.279$ ). The results also indicated that the rate of satisfaction with the past, present and future life at the second phase of the study was  $23.33 \pm 6.51$ ,  $27.62 \pm 4.08$  and  $28.56 \pm 3.85$ , respectively. The average rate of life satisfaction for the case group at the first and second phase of the study was 71.7 and 79.5, respectively. The paired T-Test indicated that in the case group, there was a significant difference between the results of the first and second phase in terms of life satisfaction ( $P < 0.05$ ,  $t = 2.885$ ). In other words, the consultation session had changed the viewpoint of the participants in the case group and increased their life satisfaction. The average life satisfaction for the control group at the first and second phase of the study was 72.6 and 71.7, respectively. Furthermore, the paired T-Test showed no significant difference between the results of the control group before and after the consultation sessions in terms of life satisfaction ( $P > 0.05$ ,  $t = 1.30$ ). For the control group, there was no significant difference the first and second phase of the

**Table 1: The average rate of life satisfaction for the case and control groups**

Variables	Case Group/First Phase	Control Group/First Phase	T	P	Case Group/Second Phase	Control Group/Second Phase	T	P
Life Satisfaction in the Past	21.76	22.78	0.665	0.508	23.33	22.40	0.718	0.475
Life Satisfaction in the Present	24.84	24.69	0.115	0.908	27.62	24.71	2.958	0.004
Predicting Happiness in the Future	26.06	25.13	0.737	0.463	28.56	24.67	4.355	0.000
Total Satisfaction	71.77	72.60	0.279	0.781	79.51	71.77	2.934	0.004

study in terms of the rate of life satisfaction in the past, present and future. In other words, the rate of life satisfaction for the control group can be attributed to the lack of consultation sessions. The rate of life satisfaction of the both groups was compared after the consultation sessions in order to provide a precise analysis. The results showed that the average rate of satisfaction for the control group at the past, present and future life at the second phase was  $22.40 \pm 5.81$ ,  $24.71 \pm 5.19$  and  $24.67 \pm 4.59$ , respectively. However, the average rate of satisfaction for the case group in the past, present and future life at the second phase was  $23.33 \pm 6.51$ ,  $27.62 \pm 4.08$  and  $28.56 \pm 3.85$ , respectively. The average life satisfaction for the control and case groups at the second phase was 71.7 and 79.5, respectively. The T-Test indicated that there was a significant difference between the case and control groups in terms of life satisfaction at the second phase of the study ( $P < 0.05$ ,  $t = 2.93$ ). Accordingly, comparison of the rate of life satisfaction for both the groups after the consultation session showed no difference for the past. However, there was a significant difference between the case and control groups in terms of past and future life.

## Discussion

The present study aimed to investigate the effects of psychological consultation on the sense of satisfaction of the infertile women. In this experimental study, 90 women were randomly selected, all of whom referred to the Alzahra Educational and Medical Center and Tabriz Madar Clinic. According to the hypothesis, the psychological consultation can affect the rate of life satisfaction in infertile women. The results showed that the rate of life satisfaction in the case group increased after the psychological consultation sessions. Comparison of the results indicated that there was a significant difference between the case and control groups in terms of past, present and future life ( $P < 0.05$ ). In other words, the behavioral, cognitive and emotional consultation can decrease the negative aspects of infertility. These results are in good agreement with those obtained by Ramel *et al.*<sup>[44]</sup> After the psychological consultation sessions, the infertile women decided that they are not obliged to limit their lives only to having children. For this purpose, they decided to reconsider the consequences of having children. According to the orientations, the events and incidents do not influence people negatively. In other words, the way people thinks stems from their beliefs, mental designs, etc.<sup>[45]</sup> Therefore, it appears that the type and intensity of one's reaction to infertility depends on his/her beliefs and attitudes about infertility. Using cognitive, emotional and behavioral techniques and methodologies, one can form logical beliefs about infertility. If infertile women attend a class in which all the participants suffer from the same problem, they will most probably change their mind about infertility. The class emphasizes the fact that this problem is not specific to certain women and there are several people throughout the world who suffer from infertility. Therefore, the class allows women to discuss and provide their opinions on the matter freely.<sup>[46]</sup> Other studies also acknowledge the fact that cognitively, emotionally and behaviorally oriented consultations can enhance the mental

health of people.<sup>[47-49]</sup> Yektatalab and Heydari showed that mental treatment in a group can decrease the depression and stress in infertile women and improve their mental health.<sup>[50,51]</sup> The findings are tacitly in good agreement with those which recommend the integrated medical interventions in order to treat infertility. Thus, the research hypothesis is proved. It can also be argued that psychological consultation can play a vital role in the infertility treatment.

## Conclusion

It is very important to investigate the psychological problems of infertile women and provide them with consultation services and medical treatments. This study provides useful information about the effectiveness of consultation interventions for the counselors, clinical staff of the infertility centers, educational programmers and the researchers. The present study also emphasizes that the consultation interventions should not be limited to infertile women only. For this purpose, the husband needs to be given consultation interventions because he can play a key role in supporting his wife emotionally which can possibly affect the treatment process. In order to analyze the data and have a better understanding about the quality of life of the infertile couples, it is suggested to use qualitative and phenomenological instruments. Given the temporal nature of this study, it is recommended to carry out a linear study on the effectiveness of psychological consultation. It is also recommended to conduct another study in order to investigate the effects of psychological consultation on the life satisfaction of couples.

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## Conflicts of interest

There are no conflicts of interest.

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