THE COMPARISON OF DEPRESSION, ANXIETY, SELF-ESTEEM, AND LIFE SATISFACTION BETWEEN FERTILIZED AND INFERTILIZED WOMEN

Hamideh Ehsani Sarvkoalai¹, Maryam Shahidi² and Abdulali Yaghoubi³

¹ Department of Clinical Psychology, School of Humanity Science, Azad University of Sari, Sari, Iran
² Medical Physics, Faculty of Medical Sciences, Department of Bio-Physics Member of Faculty Medical University of Mazandaran, Mazandaran, Iran
³ Psychology Department, Islamic Azad University of Behshahr, Iran

Email: shahidi_maryam@yahoo.com

ABSTRACT
The Purpose of this survey is to compare the size of depression, anxiety, self-esteem and life satisfaction between fertilized and in fertilized women. The method of this survey was causal-comparative and it was consisted of 89 fertilized women in other therapeutic centers Sari and Ghaem Shahr. This group was compared with 100 in fertilized women and they were randomly chosen from Maryam infertility institute in Sari. All this information was gathered through depression Beck questionnaire (1996), anxiety Zank questionnaire (1987), self-esteem Cooper-Smith questionnaire (1999) and life satisfaction Dinner questionnaire (1985). For analysis of this data, two-independent group method and Persion correlation test were used. The conclusions indicated that the levels of depression and anxiety in unfertilized women compared with fertilized women don’t have meaningful differences, while the self-esteem and life satisfaction in these groups have significant differences. The relationship between self-esteem and depression in these groups is so reversed that if the depression is high, self-esteem is low and versus. The relationship between anxiety and self-esteem in these two groups is so reversed that if the level of anxiety is high, self-esteem decreases and versus.

KEYWORDS: Anxiety, Life Satisfaction, Depression, Self-Esteem, Unfertilized

INTRODUCTION
Human life throughout history has always been associated with the problems and irregularities that the present age has added to the complexity of the issue. With a quick look at the statistics in the field of mental disorders, it may be related to the ranges of issues and problems of today's world (Papalia et al., 2012). Among the problems of the present century, infertility suffered all nations in the world, so that statistics show that approximately 10% to 15% of women around the world suffer infertility and can say that a couple of six couples experiences the infertility at some of steps of their lives (Speroff et al., 2012) and in Iran it is 24.9% (Sargolzaee et al., 2001).

Due to the enormous psychological problems associated with infertility, in 1994 in the World Conference on Population and Development in Cairo, infertility was diagnosed as a factor that with a serious injury to the body of reproductive health (Sargolzaee et al., 2001), and affect different aspects of one's life. Perhaps infertility is one of the most important stressful events in a person's life that is considered as a negative and frustrating event for couples, especially the women. The experience of infertility, that some have called it “infertility crisis”, is associated with the problems such a sense of loss of life, lack of personal control, health and self-esteem. Feelings related to the losses including sadness, humiliation, loneliness, boredom, frustration and fear. In fact, the feelings experienced by infertile is similar to what the people experience in front of a big loss, such as loss of a dear (Sargolzaee et al., 2001). Infertility is defined as failure to conceive after one year of intercourse without using contraceptives and sterilization procedures and refers to the inherent inability to become pregnant (Cherni et al., 2002). Some prefer to use the term” low fertility” to describe women or couples who are not childless but show poorer reproductive performance (Speroff et al., 2012). Accordingly, infertility is divided into two primary infertility and secondary infertility categories and its causes are divided into two groups, male and female factors. The most important male factors are endocrine disorders, anatomical abnormalities, abnormal spermatogenesis, abnormal sperm motility and sexual dysfunction (Gibson et al., 2000). The most important factors for women include: Ovarian dysfunction, disorders of the fallopian tubes, endometriosis, cervical and uterine factors, factors of safety and unexplained infertility (Speroff et al., 2012). In addition, researches of Abbey et al. (1992), Domar (2000), Gannon et al. (2004), Folkvord et al. (2005) indicated existence psychological problems among infertile women and men. Psychological factors may also play a role in creating infertility and are considered as its consequences. In this regard, the evidence shows that psychological
problems of infertility can be an aggravating factor in infertility adjuvant (Keye et al., 1995; Domar et al., 2000). Also, endocrinology advances in the role of anxiety and depression at infertility have confirmed this relationship (Nelson et al., 2008). In addition, the results of Muller show the stress and worry of infertility have direct effect on the physiology of the body and eventually negatively affect infertility (Keye et al., 1995). On the other hand, people who have the peace of mind and mental health and experience less pressures, thereby increasing their chances of fertility (Folkvord et al., 2005). Erikson introduces this important stage of life as "the production and innovation time" and explains having children is coalesced fundamentally to the goals and highlights joys in life of the couple (Jannati and Khaki, 2010). Among the psychological factors of affecting infertility, depression is a special place so that depression is also called as the common cold of mental illness. Hence, it is the most common reaction in infertile couples that is in response to both the multiple lack and long-term stress. Various researches have shown that infertility is a painful emotional- feeling experience that couples’ reaction against the feeling occurs in form of anxiety, depression, somatic symptoms and yield loss. They feel hopeless, helpless, more anger, low self-esteem and dissatisfaction. Infertility is as a negative event and a difficult and debilitating condition that can create very important social and health problems and as a serious medical problem may has a devastating impact on women's lives (Zamani et al., 2013). Most studies have reported that the majority of women undergoing treatment for infertility after knowing their negative pregnancy test, symptoms of depression intensify in them. Researchers conducted in this area are often focused on the medical and technical aspects of infertility problems, and emotional and social aspects such as mental problems including depression, anxiety, low self-esteem, and decreased life satisfaction are not much taken into consideration. Hence, given that the number of women in Iran’s society is also susceptible to this phenomenon and in private life faces with the issues such as abuse, neglect, social exclusion, divorce and separation. Understanding their problems and considering the psychosocial- social effects of infertility are important. Moreover, since securing the physical, emotional and mental of the women are considered as the important factors in the family and society stability, assessment of domains of this phenomenon can be helpful for health policy planners in designing processes of reducing anxiety and depression in infertile women and improving self-esteem and life satisfaction (Cherni et al., 2001). Hence, considering the key role in generating and childbearing Iranian families and its cultural and social dimensions and also high prevalence of infertility, and due to the importance of depression, anxiety, self-esteem and life satisfaction in these families, the main objective of this research is whether there are significant differences among the depression, anxiety, self-esteem and life satisfaction in fertile and infertile women.

MATERIALS AND METHODS
Population, sample and sampling
As regards the objective of this research was to compare depression, anxiety, self-esteem and life satisfaction in fertile and infertile women, the methodology of this study is a scientific - comparative method (retrospective). The study sample consisted of fertile women referring to health centers of Sari and Ghaem Shahr cities in the first six months in 2014 and infertile women referring to Infertility Center of Hazrat-e - Maryam (SA) of Ghaem Shahr city in the first six months in 2014. Therefore, using a simple random sample, 100 infertile and 89 fertile women were chosen as sample.

Research tools and methods of data collection
In this study to test the research hypothesis, four the Beck Depression Inventory, Zank Self-Rating Anxiety Scale Inventory, the Cooper smith Self-Esteem Inventory and Satisfaction with Life Scale Inventory have been used, and these inventories have three parts: (introduction, demographic variables of the study and the research questions). The Beck Depression Inventory was introduced in 1996 by Beck, Mendelson and Mock in the form of 21 questions based on the multiple-choice Likert spectrum. The results of meta-analyzes performed on the main BDI-II indicated that the internal consistency coefficient is between 0.73 to 0.93 with a mean of 0.86, the reliability coefficients obtained from retest depending on the distance between times of the run and the type of population is in the range of 0.48 to 0.86 (Marnat et al., 2011). To calculate the reliability of the scale SAS, inner correlation method was used. This amount is equal to 0.84. Also, the reliability of the Cooper smith Self-Esteem Inventory (SEI) using the retest method with four weeks and twelve days has been reported 0.77 and 0.80, respectively, and the reported internal consistency coefficients was varied between 0.89 and 0.83 in the different studies (Hasanzadeh et al., 2014).

RESULTS
Descriptive findings
According to the table above, the average length of marriage for fertile women is 16.31 years and average length of marriage for infertile women is as well as equal to 6.72 years. Independent t-test was used to compare the study
variables between fertile and infertile women and the results are reported in Table. As shown in Table 3 since the p-value for the variables of depression and anxiety is more than error level 0.05, it can be said: there is no significant difference between the depression and anxiety in fertile and infertile women; although fertile women have descriptively more anxiety and depression than women who are infertile. But about the difference between self-esteem and life satisfaction in fertile and infertile women, the p-value is less than the error level 0.05. Hence, it can be said that there are significant differences between these two groups on the variable of self-esteem and life satisfaction, and fertile women compared to infertile women have greater self-esteem and life satisfaction. With regard to that in Table Pearson the Sig amount (significance level) is significant in error level 0.05 (sig = 0.000 < α = 0.05) so with 95 percent certainty, the results were obtained that there was a relationship between the two variables and in fact there is a reverse relation between depression and self-esteem, anxiety and self-esteem in both groups fertile and infertile women so whatever depression and anxiety of subjects become more, their self-esteem reduced and vice versa. In the group of infertile, reverse severity of depression, anxiety and self-esteem is stronger.

Table 1. Distribution of sample by Fertility

<table>
<thead>
<tr>
<th>Status</th>
<th>Abundance</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertile women</td>
<td>92</td>
<td>49%</td>
</tr>
<tr>
<td>Infertile Women</td>
<td>97</td>
<td>51%</td>
</tr>
<tr>
<td>Total</td>
<td>189</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2. Distribution of respondents according to the time of marriage

<table>
<thead>
<tr>
<th>Variable</th>
<th>The minimum Age</th>
<th>The maximum Age</th>
<th>The mean age</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertile women</td>
<td>1</td>
<td>56</td>
<td>16.31</td>
<td>11.43</td>
</tr>
<tr>
<td>Infertile Women</td>
<td>1</td>
<td>26</td>
<td>6.72</td>
<td>4.46</td>
</tr>
</tbody>
</table>

Table 3. Result of t-test for differences between the two groups.

<table>
<thead>
<tr>
<th>Components</th>
<th>Status</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Error value</th>
<th>Value of t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Fertile</td>
<td>17.92</td>
<td>9.38</td>
<td>0.05</td>
<td>1.67</td>
<td>0.096</td>
</tr>
<tr>
<td></td>
<td>Infertile</td>
<td>15.05</td>
<td>10.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>Fertile</td>
<td>37.15</td>
<td>6.57</td>
<td>0.05</td>
<td>1.39</td>
<td>0.165</td>
</tr>
<tr>
<td></td>
<td>Infertile</td>
<td>35.67</td>
<td>6.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Esteem</td>
<td>Fertile</td>
<td>112.52</td>
<td>4.58</td>
<td>0.05</td>
<td>8.367</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Infertile</td>
<td>88.60</td>
<td>3.93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>Fertile</td>
<td>15.88</td>
<td>5.87</td>
<td>0.05</td>
<td>4.36</td>
<td>0.019</td>
</tr>
<tr>
<td></td>
<td>Infertile</td>
<td>13.80</td>
<td>5.75</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Results of Pearson correlation coefficients between the research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Component</th>
<th>Pearson coefficient</th>
<th>Error rate (α)</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression and Self-Esteem</td>
<td>Fertile</td>
<td>-0.28</td>
<td>0.05</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Infertile</td>
<td>-0.33</td>
<td>0.05</td>
<td>0.000</td>
</tr>
<tr>
<td>Anxiety And self-esteem</td>
<td>Fertile</td>
<td>-0.21</td>
<td>0.05</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Infertile</td>
<td>-0.24</td>
<td>0.05</td>
<td>0.001</td>
</tr>
</tbody>
</table>

DISCUSSION AND CONCLUSIONS

Today’s, racial prejudices along with feelings of superiority without any reason, urban society with its high and uncertainty mobility, lack of close family relationships, failed and unhappy marriages, the fragmentation of the family, lack of attention to spirituality, rapid social change, loss of values and traditional beliefs and the most important of all,
weakness of faith and lack of consoling faith (consoling faith could be supportive for human against the problems) have increased human anxiety disorders (Azad, 2005). Meanwhile, infertility is considered as one of the main stressful events in the life of people, and is raised as negative and frustrating event for couples, particularly women, and is associated with many psychological problems. The main objective of this study was to compare anxiety, depression, and self-esteem and life satisfaction in fertile and infertile women. The results showed that there was significant difference between depression and anxiety of fertile and infertile women. Although descriptively fertile women have more depression and anxiety than infertile women. But about the difference between self-esteem and life satisfaction in fertile and infertile women, there were no significant differences between these two groups, and fertile women have more self-esteem and life satisfaction than infertile women. The results of the present study are not consistent with the results of Najafi et al. (2005) and Fa’al Kalkhuran et al. (2012) as well as with researches of Burns and Covington (2000), Andrade et al. (2003), Domar et al. (2000), Wischmann et al. (2009), Weiss et al. (2004), Kazandi et al. (2010), Thompson (2013), McEwen (2003), Ogawa et al. (2011), Matsubayash (2004) who showed that depression and anxiety in infertile women are more than in fertile women. Perhaps it can be explained this misalignment is based on Economic, social, cultural, etc. variables as annoying and uncontrolled variables.

According to the conducted research, the infertile population has lower self-esteem and life satisfaction than the general population. Self-esteem is the self-assessment section of the self-conception, it means a judgment that a person believes on the total value of own self (Papalia et al., 2012). Since infertile women because of infertile, don’t know themselves as a perfect woman, thereby have a lower evaluation of their overall value, and hence it can be seen this feeling of being valueless causes to reduce self-esteem in this group. In association with the level of life satisfaction of fertile and infertile women, there was a significant difference, and this result was consistent with the results of research of Seif and colleagues and Jannati and Khaki (2010) and Seif and Alborzi (2001).

Hence it can be said with regard to life satisfaction, it is an arbitration process, people assess their quality of life based on their own unique criteria. Life satisfaction is not a stable and objective trait, but has been sensitive to the situation changes and is considered based on the perceptions and attitudes of individuals (Sheikhi et al., 2011). Moreover, these results suggest that there is a reverse relationship between depression, anxiety and self-esteem in both of fertile and infertile women groups, so that, whatever depression and anxiety of the subjects is greater, their self-esteem reduces and vice versa. Also, according to the results of this study, the inverse relationship is observed with higher intensity between depression, anxiety and self-esteem in infertile women. Infertility women due to severe psychological stress of infertility have more negative emotional reactions to the current environment and position and therefore it is obvious despite crisis of infertility and lower self-esteem, relationship between these two variables was observed with greater intensity. The results of this hypothesis are consistent with the results of Solati Dehkordi et al. (2006), Gibson and Myers, (2000) Taghavi and Fathi (2009) have confirmed them. For explanation of these findings, it can be said that economic, socio-cultural, psychological problems in modern societies along with technological advances rise into psychological problems such as anxiety and researches have shown that women’s anxiety level is higher than men’s, thereby rising levels of anxiety causes to low self-esteem and inferiority complex of its valuable and finally leads to reduce self-esteem that this amount in infertility people is more due to stressors of infertility.

REFERENCES
Thompson Marie. (2013). Infertility’s effect on stress -anxiety and depression from an Adlerian perspective. Adler Graduate school, Minnesota, USA.