

## Investigation of Relationship between Irrational Beliefs and Worry in Infertile Women

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### ABSTRACT

Infertility is a factor which causes worry in couples. This problem is not only disappointing but also destructive and has many adverse impacts on evolution of masculine or feminine personality and harms their identity. The present research aims to investigate relationship between irrational beliefs and worry in infertile women. Statistical population of the present research included all infertile women in Guilan Province. Sample of the research included 150 infertile women who were selected by means of random accessible sampling. Ahwaz irrational beliefs index(2005) and Pennsylvania worry questionnaire (2009) were used for data gathering. Pearson correlation test and regression analysis were used for data analysis. The results of the research showed that there is a positive and significant relationship between irrational beliefs and worry in infertile women ( $r=0.43$ ). the results of regression analysis also showed that irrational beliefs can predict 31% of the variance of worry in infertile women.

**KEYWORDS:** irrational beliefs, worry, and infertility

### INTRODUCTION

Reproduction is an ability of human being which is a symbol of eternity and tendency for living on. This behavior has some stable impacts on human personality and society such that individual and social life depends on this function. Infertility is the opposite point of fertility and ability to reproduce (Rasti et al, 2012). Infertility is a stressful experience and it refers to inability to become pregnant and have baby after one year of copulation without preventing from pregnancy, or inability to give birth to live babies. From a psychological viewpoint, it is a critical period of time which involves imbalance between couples who want to have babies (Nicols et al, 2000) and negative responses like sorrow, denial, depression, nervousness, distress in marital life, bad sexual performance and anger towards spouse (Dunkel and Levil, 1991). Becoming pregnant is an important stage in life and inability to become pregnant means stress and anguish and investigation of its impacts is a real challenge (Raskano and Veladica (2012). Within the framework of psychology, many studies have been conducted on infertility because it brings many problems for couples. One of these problems is being worried about infertility label (Donkor and Sandall, 2007). Studies showed that more than 50% of women experience reduction in self-confidence as soon as they notice they have problems with becoming pregnant (Meyer, 1996). Further, infertility can intensify negative self-concept and even result in social isolation in infertile couples (Rozenberg, 1985). It may destroy their future hopes and targets (Sibel, 1997). Psychological response to infertility has many different forms and ranges from psychological shock to denial, anger, isolation, guilty conscience, and sorrow and unhappiness (Mening, 1980). In most societies, reproduction and having baby is an element of a woman's identity and is a source for woman's power in family and society. Infertile women have many social and family problems (Grill et al, 2010). In fact, infertility is a heavy shock to an individual's self-esteem and is accompanied with vulnerability to psychological disorders (Kumar et al, 2013). Individuals who emphasize on irrational beliefs in life will have many problems and it is difficult for them to be satisfied (Hollin, 1996). Therefore, emotional disorders will last until when irrational beliefs exist and wrong perceptions about daily affairs contribute to existence of unreal and irrational beliefs (Azizi, 2006). It is followed by depression, unhappiness, criticism, regret and other deep emotional impacts (Aminpour and Ahmadzadeh, 2011).

Smeenk et al (2001) showed that psychological factors like anxiety and depression have relationship with the result of IVF treatment. Honarparvaran et al (2012) also showed that there is a linear relationship between irrational beliefs and conscious emotion with sexual tendencies and irrational beliefs have negative impacts on sexual desire. Katirayee et al (2010) showed that infertile women have more irrational beliefs and use more defensive mechanisms more than fertile women. Besharat, Lashkari and Rezazadeh (2014) showed that there is a negative relationship between irrational beliefs and compatibility with infertility. The results of the research

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conducted by MousaviNik and Basavarajappa (2012) showed that irrational beliefs have significant correlation with depression symptoms in infertile women. Theroux and Pole (1998) showed that cognitive mechanisms influence compatibility and marital satisfaction and these irrational beliefs are observable in couples who have special problems. Therefore, infertile couple's lives are prone to irrational beliefs. Another important variable regarding infertility is worry. Burkoik et al (1993) defined worry as "a chain of thoughts and images which have uncontrollable negative emotional contents" which are indicative of attempt for psychological problem-solving about real or illusion subjects. Its implications are not clear but they include one or several negative impacts (Langlois et al, 2000; Dui and Wols, 2006; Hang, 2007). Infertile people are more worried in their lives because psychologists believe that the way infertility news of one of the couples is spread among other people and their judgments about his or her fertility are serious worries of couples and harm the society (Younesi, 2003). Since fertility of a woman is very important in Iranian society, such a worry is acceptable and plausible (Younesi and Salajegheh, 2001). SobhaniNejad and Homayee (2006) showed that infertile women experience levels of stress. Hayton (1990; as quoted from SobhaniNejad and Homayee, 2006) believes that fear from disappearance of life and not having support(children) in old age are two factors which increase nervousness and anxiety in infertile people (Chang (2001) showed that infertile women and men feel depressed, anxious and guilty. Matsobayashi et al (2001) showed that emotional disorders and psychological stresses in infertile women is more than that of fertile women. Gaz et al (2003) investigated psychological symptoms in infertile women. Their results showed that depression and anxiety in infertile women was more than that of control group and as age increases and infertility period is elongated, depression, self-confidence reduction and anxiety are intensified. Souter et al (2002) conducted a research aimed at evaluation of psychological well-being in women who received infertility treatment. The results showed that these individuals had lower psychological health than other people. Oddens et al (1999) also conducted a research to investigate socio-psychological experiences in women with fertility problems in comparison with normal women. The results showed that women with fertility problems reported higher levels of negative feelings and scores of well-being test were affected more than other cases. Jordan et al (1999) showed that there is a difference between application of coping styles in infertile women and men and believe that infertility is more stressful in women. In Anderson et al's research (2003), the results showed that there is a significant relationship between infertility-driven worries and life satisfaction, satisfaction with sexual relationship, self-criticism and self-esteem. Dumar et al (2000) concluded that most infertile people experience anxiety and depression. The results of Muller (1993, as quoted from Ki et al, 1995) showed that psychological stresses and infertility-driven worry influenced physiological performance of body and finally has adverse impacts on infertility. Aghanwo et al (1999) showed that anxiety and depression has a positive significant relationship with infertility period of women. The results of Salvatore et al (2001) showed that women who receive infertility experience higher levels of anxiety and sentimental stresses than the control group. Ilse Bruch et al (2003) conducted a research and investigated life quality, socio-psychological health and sexual satisfaction in women with polycystic symptoms (one of the causes of infertility). The results showed that these women have many psychological disorders like obsessive-compulsive disorder, inter-individual sensitivity, depression, anxiety, aggression and psychosis symptoms and had low levels of life satisfaction. Rasti et al (2012) showed that neuroticism in infertile women is more than that of fertile women. MuhammadiHoseini (2001) showed that tiredness resulted from continuous commute to clinics was the most effective physical tension factor and worry about the result of treatment was the most effective socio-psychological tension. Many studies (for example Shakeri et al, 2006; Jamilian et al, 2011; Heidari et al, 2011; Mazaheri and Mohsenian, 2011; Najmi et al, 2001; FaalKalkhuran et al, 2011; Pahlavani et al, 2002; Chehreh et al, 2012; Jamilian et al, 2011; Hasanpour et al, 2014; BehjatiArdakani et al, 2010; Kelemett et al, 2010; Kumarsaha et al, 2015) showed that infertile women had lower general health than fertile group and were more vulnerable psychologically. The present research tries to answer this question: whether there is a relationship between irrational beliefs and worry in infertile women?

## METHODOLOGY

### Statistical population, sample and sampling method

Considering the main goal of the research, it is a descriptive study. The statistical population of the research included all infertile women in Guilan province. In the present research, accessible sampling was used to pick 150 infertile women.

### Research methodology

#### 1. Irrational beliefs questionnaire

Ahwaz irrational beliefs questionnaire (4IBI-A) was designed by Ebaddi and Motamedin (2005) using Jones irrational beliefs test (1969) by means of factor analysis. They implemented the main form of the questionnaire IBI on 360 students and selected 143 sample members by means of random sampling and conducted Ahwaz irrational beliefs index and Jones irrational beliefs questionnaire simultaneously. They calculated validity coefficient to be equal to 0.87. They used Cronbach's alpha and bisection method for

reliability evaluation. They obtained alpha coefficient to be equal to 0.759. This shows that the questionnaire has a good reliability. All questions were scored from zero to 4 (from completely disagree to completely agree).

## 2. Worry questionnaire

Pennsylvania worry questionnaire is a self-reporting 16-question questionnaire which measures serious and uncontrollable worry. This questionnaire is used as an instrument for examination of anxiety. All its questions are based on 5-point Likert scale (1=completely wrong, 5=completely right). 11 questions are scored positively and 5 questions are scored negatively. Scores ranged from 16 to 80. Zang et al (2009) reported internal consistency to be equal to 0.9-0.91. in Iran, reliability of the test was reported to be equal to 0.86 (by means of internal consistency, Cronbach's alpha) and equal to 0.77 by means of retest method during 4 weeks (ShirinzadehDastgiri et al, 2008).

## Statistical methods of data analysis

In the present research, data were analyzed by means of Pearson correlation test and regression analysis using SPSS20 software.

## RESULTS

Table 1.mean and standard deviation for irrational beliefs

variable	mean	SD
Irrational beliefs	130.25	18.58
worry	51.49	7.85

Table 2.Correlation between irrational beliefs and worry in infertile women

variable	r	r <sup>2</sup>	sig
Irrational beliefs			
worry	0.43	0.18	0.01

As it can be seen in table 1, there is a positive correlation between irrational beliefs and worry in infertile women ( $r=0.43$ ) which is statistically significant ( $p<0.01$ ). Therefore, it can be said with 99% of certainty that as irrational beliefs increase, worry is also increased in infertile women. Regression analysis reveals that 18% of worry is predicted in infertile women via irrational beliefs.

## DISCUSSION

The results of the research found that there is a positive and significant relationship between irrational beliefs and worry. In other words, as irrational beliefs increase, worry is also increased in infertile women. Regression analysis showed that infertility can be predicted in infertile women via irrational beliefs and irrational beliefs can predict 18% of worry in infertile women. These results are consistent with the results of studies conducted by Honarparvaran et al (2012), Najmi et al (2001), Sadegh (2004), AlizadehSahrayee (2010), Gaz et al (2003), Anderson et al (2003), Li et al (2001), Troks and Paul (1998). Infertility can intensify negative self-concept and even can result in social isolation of couples. Infertile people are more worried in their lives because psychologists believe that the way infertility news of one of the couples is spread among other people and their judgments about his or her fertility are serious worries of couples and harm the society. An infertile woman destroys her thoughts due to irrational expectations of others, excessive expectations of oneself, irrational beliefs, dependence and irrational perfectionism. Such a woman thinks that life is impossible without fertility (Honarparvaran et al, 2012). This increases worry. The present research had some restrictions. The main restrictions are limited number of respondents which can reduce generalizability of the results. Further, absence of social, economic and academic compatibility between the two groups was also another restriction. It is also recommended that similar studies be conducted in larger samples so that the results can be generalized more easily.

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