IRRATIONAL BELIEFS AND DEPRESSION AMONG INFERTILE WOMEN

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Abstract:

Irrational beliefs play a central role in cognitive theory and therapy; they have been shown to be related to a variety of disorders such as depression. Dysfunctional negative feelings (e.g., anger, depressed mood, anxiety and guilt) are more intense and related to irrational beliefs. The present study aimed at evaluating irrational beliefs and depression among infertile women. A purposive sample of 50 primary infertile women (Diagnosed by specialist) was selected from Mediwave IVF & Fertility Research Hospital in Mysore-India, and their spouse interviewed individually with a request to cooperate in the research. Out of 50 infertile women, 40 subjects were selected randomly. All subjects were assessed using Beck Depression Inventory-II (BDI-II) and The Shortened General Attitude and Belief Scale (SGABS). Results showed irrational beliefs has significantly correlation with depressive symptoms further, The result of the linear regression model to determine the predictors of Irrational Beliefs showed that 84.1% of the variation observed in the irrational beliefs can be explained by these five variables (History of IVF, Cause of Infertility, Attempt to conceive with duration ,Financial support and Duration of infertility treatment) and these are significantly correlated with irrational beliefs And can predict the irrational beliefs levels of the infertile women. The Results suggested to apply counseling and psychotherapy services in the infertility centers to reduce the psychological pressures on couples facing infertility to help them to enhance fertility chances.

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INTRODUCTION:

Irrational beliefs are defined as evaluative beliefs that are not empirically supported, non practical, and/or illogical. Rational beliefs, on the other hand, are empirically supported, practical, and/or logical. Rational beliefs advance functional feelings, whereas irrational beliefs advance dysfunctional feelings (David, 2003).According to Harper & Ellis (1961) originally suggested the distinction between functional and dysfunctional feelings on their intensity Dysfunctional negative feelings (e.g., anger, depressed mood, anxiety, guilt) are more intense and related to irrational beliefs (IBs), whereas functional negative feelings (e.g., annoyance, sadness, concern, remorse) are generally less intense and related to rational beliefs (David , Lynn, & Ellis, 2009).
David et al. (2002) found that high levels of irrational beliefs generate dysfunctional feelings (e.g., depressed mood, anxiety), whereas low levels of irrational beliefs generate functional feelings (e.g., sadness, concern).It follows from Ellis's model (1994) of psychopathology then, that endorsement of IBs should be related to increased levels of emotional disturbance and, conversely, decrease level of IBs should be associated with clinical improvement. In both clinical and nonclinical samples, research study has supported this relationship (David , et al., 2009) Endorsement of IBs has been positively associated with overall psychopathology (Smith, Haynes, Lazarus, & Pope, 1993), depression (Solomon, Arnow, Gotlib, & Wind, 2003),anxiety (Lorcher, 2003), nonassertive behavior (Lange, Jakubowski, & McGovern, 1976), and Type A coronary-prone behavior (Woods, 1987). Research on the relationship between depression and irrational beliefs has generally found a positive association (Prudhomme & Barron, 1992).

Infertility, Irrational Beliefs and Depression

It is estimates that 60 to 80 million couples worldwide currently suffer from infertility (World Health Organization, 2004). Infertility is divided into primary and secondary infertility. Primary infertility is "Inability to conceive within two years of exposure to pregnancy (i.e.- sexually active, non-contraception, and non-lactating) among women 15 to 45 years old" (WHO,2004). Secondary infertility refers to the inability to conceive following a previous pregnancy. Globally, most infertile couples suffer from primary

infertility (Inhorn, 2003).Diagnostic procedures and the treatment of infertility may influence physical and sexual health of the infertile women (Mahlstedt, 1985), both the infertility itself and the treatments for it may cause depression (Hammarberg, Astbury , & Baker, 2007). On the other hand, depressive symptoms may either be the cause or the consequence of infertility (Greil, 1997).The role of depression relative to the outcome of in fertility treatment is controversial. While some studies report that increased depression levels may result in a lesser pregnancy rate (Gulseren, et al., 2006). Philosophers and scientists have recognized the association between psychological factors and physical health. Both cognitive and emotional variables have been shown to contribute to physical feelings, symptoms, and suffering (Kirsch, 1990; Trief, Grant, & Fredrickson, 2000). However, a psychological variable that has been too frequently abandoned as a predictor of health outcomes is irrational beliefs (Ellis, 1994). According to Walen, DiGiuseppe, & Dryden, (1992) currently, irrational beliefs are defined as a combination of psychological process and thought content. Irrational beliefs are believed to consist of four categories of cognitive processes:(1)Demandingness;(2)Awfulzing/catastroz-ing; (3) Frustration intolerance; and (4) Global evaluation/self-downing (GE/SD).

Each category covers various content areas (e.g., achievement, affiliation, comfort) .Cognitive investigation holds that it is not the activating events we experience that reason our suffering, but rather our beliefs about those events. Two individuals can experience the same activating event, and yet respond differently depending on their belief system they hold. For example, consider two women that have been diagnosed with infertility, and are scheduled to receive infertility treatment. Person A may irrationally think in response to this event, ‘‘this is AWFUL! This treatment will ruin my life! I can’t stand it,’’ whereas Person B may rationally think, ‘‘I hope I didn’t have to deal with this treatment, but it is only a part of my life. It will not rule 100% of my life. And even though I don’t like having to go through this, I will be able to stand it. ‘Based on their varying beliefs, these two individuals (Persons A and B) might experience different emotional, behavioral, and physical responses to infertility and its treatment. Person A, who holds irrational beliefs, may well experience dysfunctional negative emotions (e.g., anger, depression), engage in unhelpful health-related behaviors (e.g., decline or delay treatment), and suffer from different stress related physical complaints (e.g., nausea, weariness, headaches). On the other hand, Person B may fare much better than Person A emotionally (e.g., displeasure, mild sadness), behaviorally (e.g., continue treatment fulfillment), and physically (e.g., reduced physical complaints) (David, Lynn, & Ellis, 2010).

Although many clinicians may regard the links between beliefs (rational and irrational) and a wide variety of health-related outcomes as obvious, scientifically sound research is needed to support this clinical intuition. Unfortunately, there is a dearth of empirical clinical data in this area. Infertility should be considered as having an important role in psychological factors influencing the prevalence and treatment of infertility.

In fact infertility creates a critical situation that threatens the emotional and psychological life of the individual. The question that arises in this regard is as follows: Do the emotional and psychological problems lead to infertility? Or does the infertility lead to emotional – psychological problems? In both cases, it is evident that infertility is a crisis that leads to an emotional or psychological imbalance, particularly when a possible and rapid solution is not found for it (Saki, Saki, Jenani, & Asti, 2005).The aim of this study, evaluating irrational beliefs and depression among infertile women.

METHODS:

Sample Collection:

A purposive sample of 40 primary infertile women (Diagnosed by specialist) was selected from Mediwave IVF and fertility research hospital in Mysore City-India and their spouse contacted individually with a request to cooperate in the research.

Research tools:

Beck Depression Inventory (BDI-II):

The Beck Depression Inventory (BDI-II) developed by Beck et al., (1996), it is a multiple-choice self-report Inventory that is one of the most widely used instruments for measuring the severity of depression. DBI-II is designed for individuals aged 13 years and above and is composed of items relating to depression symptoms such as hopelessness and irritability, cognitions such as guilt or feelings of being punished, as well as physical symptoms such as fatigue, weight loss, and lack of interest in sex. The BDI-II contains 21 questions, each answer being scored on a scale value of 0 to 3. The cutoffs used differ from the original: 0–13: minimal depression; 14–19: mild depression; 20–28: moderate depression; 29–63: severe depression.

The Shortened General Attitude and Belief Scale (SGABS): SGABS created by Linder et al., (1999).This scale used to measure irrational beliefs. This is a brief scale for assessment of multidimensional aspects of irrational thinking with 26 items to be answered on a five – points scale from strongly disagree (1) , disagree (2), neutral(3), agree (4) to strongly agree(5). The SGABS consists of items measuring need for achievement, need for approval, need for comfort, Demand for fairness, self-downing and other downing. Linder et al., (1999) report that the SGABS has good psychometric properties including construct validity and a test-retest re-ability of 0.91 for total irrationality and Cronbach >.79 for the subscales. Sparkes (2011) reported an excellent score of reliability with a Cronbach alpha of .90.

PROCEDURE:

A purposive sample of 50 primary infertile women (Diagnosed by specialist) was selected from Mediwave IVF & Fertility Research Hospital in Mysore-India, and their spouse interviewed individually with a request to cooperate in the research. Out of 50 infertile women, 40 subjects were selected randomly, rapport was established. Informed consent was obtained, later research instruments were administered and obtained data was analyzed using.

RESULT:

Demographic characteristics of patients are given in Table I. Our result indicated that irrational beliefs has significant correlation with depressive symptoms (Table II), it is confirm the findings of Solomon et al., (2003) and Macavei (2005) and supply a new argument in support of the influence irrational beliefs of depression; clinical depression is accompanied by irrationality. Our findings bring evidence in support of the idea that elevated depressive symptoms are accompanied by irrational beliefs. Future studies should investigate the type of relationship between IBs and subclinical depressive symptoms.

Furthermore the result of the linear regression model to determine the predictors of Irrational Beliefs (Table III) showed that 84.1% of the variance in irrational beliefs by five variables (History of IVF, Cause of Infertility, Attempt to conceive with duration, financial support and Duration of infertility treatment) is explained. In other words, 84.1% of the variation observed in the irrational beliefs can be explained by these five variables. R value (.917) also indicate that linear regression can now be used for prediction .The information below table shows that the basis of five variable coefficients are positive and result also show that History of IVF, Cause of Infertility, Attempt to conceive with duration, Financial support and Duration of infertility treatment are significantly correlated with irrational beliefs And can predict the irrational beliefs levels of the infertile women.

Table I: Socio-demographic and reproductive characteristics young, reproductive-age women in Mysore, India (n=40)

Characteristics		No.	Mean (± SD) or %
Age(yr)	20-25 26-30 31-35	24 14 2	25.85±.54
Education	Uneducated Secondary school College Undergraduate	5 23 11 1	12.5% 57.5% 27.5% 2.5%
Attempt to conceive with duration (yr)	<3 3-6 >6	14 12 14	35% 30% 35%
Duration of Infertility Treatment(yr)	<3 3-6 >6	22 14 4	55% 35% 10%
Cause of Infertility	Male Female Combined	6 22 12	15% 55% 30%
Have History of IVF	Yes No	5 35	12.5% 87.5%
Financial Support For IVF	Yes No	7 33	17.5% 82.5%

Table II: Correlation between Irrational Beliefs and Depression

Variables	N	R	Sig
Irrational Beliefs and Depression	40	.413	.008**

**P<0.01

Table III: The linear regression model to determine the predictors of Irrational Beliefs

Anticipators	B	Beta	T	Sig
Constant	70.23	-	7.60	.000**
Attempt to conceive with duration	-2.99	-1.23	-2.70	.011*
Duration of Infertility Treatment	3.63	1.20	3.71	.001**
Cause of Infertility	-7.36	-.72	-3.52	.001**
History of IVF	-10.23	-1.92	-4.31	.000**
Financial support	17.70	1.01	2.90	.007**

**p<0.01; *p<0.05; F=11.919; *R*=.917;
R Square=.841; *Adjusted R Square*=.771

DISCUTION:

Depression is more common and severe in infertile women than fertile women. Pressure from family to get pregnant is a significant provider to depression, while IVF Clinic and infertility treatment centers pay less attention to such matters. Therefore, it may be attractive to found psychological and psychiatric services in IVF clinics and infertility treatment centers, which undoubtedly would help the treatment and follow-up procedures in order to decrease the psychological problems of infertile women and their families (Al-Homaidan & Turki, 2012).

Irrational beliefs play a central role in cognitive theory and therapy; they are a major focus in treatment and, consequently, are a primary intervention target. As noted by Beck et al., (2001) these irrational beliefs, if they are properly recognized, are a key conceptual theme linking an individual's dysfunctional responses to the present condition.

Regarding the findings of the present research in increasing the effectiveness of irrational beliefs in depression level among infertile women, it is suggested to perform interdisciplinary researches with the aim of showing the effectiveness of psychological intervention in the areas that their necessity has been proved by researchers and experts. In the course of this research, it is suggested to start counseling and psychotherapy services in the infertility centers to reduce the psychological pressures on couples facing infertility to help them to enhance fertility chances. Studies have shown the useful effects of psychiatric and psychological treatments not just in adapting to ineffective treatments but also in reducing stress and depression and bringing about successful pregnancy. The therapy of one's life after unsuccessful treatment for infertility is a cognitive model in which the infertile subject is assisted in trying their best for having kids or in adapting to the situation of being infertile (Ramazanzadeh, Noorbala, Abedinia, & Naghizadeh, 2009). Studies show that acceptance of the probability of being left infertile are factors which determine the emotional response which occurs in response to infertility treatment failure (Ramazanzadeh, et al., 2009). Psychologist can help improve the process of approval of such situation by discussing the problems of infertility with couples so that they can handle the situation in a better way such as the opportunities that exist in case of treatment failure. Clinicians must also help women in becoming emotionally ready for facing failed treatment in case it occurs. Psycho -cognitive teachings such as opening the condition for infertile women can probably help them in overcoming and controlling the natural emotion brought about by treatment failure (Bunting & Boivin, 2007). Other researchers have also pointed to the importance of psycho-cognitive intervention in preparing for pregnancy.

The results of studies performed by Damer et al., (2000) Noorbala et al., (2007) and Newton et al., (1999) show the effect of psychological intervention and psychotherapy on psychiatric disorders and the rate of success of pregnancy among infertile couples, study indicate that the intervention group had lower depression and higher pregnancy and marital satisfaction rates. Other reports show that cognitive therapy throughout the process of diagnosis and treatment, particularly previous to IVF therapy and pregnancy testing, can result in higher rates of pregnancy and the use of psychological intervention can enhance the chance of pregnancy even after six months follow-up (Boivin, Griffiths, & Venetis, 2011).

Result of this study is limited by the cross-sectional population. Studies with large sample size should be conducted. More data needed on the infertility experience in different socio-cultural groups. In the present study coping strategies adopted in the infertile women has not addressed and assessing coping mechanisms, which could have provided more information on the IBs present in infertile women, since endorsement of IBs is not automatically associated with pathology. Future studies aiming at

extending the investigation on the cognitive intervention of depression should also address

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