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Psychological Distress, Coping and Subjective Wellbeing among Infertile Women

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Infertility among women is associated with a large number of psychological problems. The women suffering from infertility underwent severe psychological distress, use various coping mechanisms to improve their overall quality of life. The present investigation was planned to study psychological distress, coping resources and subjective well-being among infertile women in comparison to normal women. The sample for the study consisted of 200 women (100 infertile and 100 normal) The sample was assessed with Subjective Wellbeing Inventory, Coping Resources Index, and General Health Questionnaire-12 (GHQ-12). Data were processed for Discriminant Analysis. When compared, results clearly demonstrated poor subjective well-being, high level of psychological distress, and inappropriate coping among infertile women as compared to their normal counterparts. Discriminant Analysis clearly revealed a linear combination of five aspects of subjective well-being which account for considerable degree of variation between infertile and normal women groups.

***Keywords**:* Infertility, Distress, Coping, Wellbeing.

Infertility is an inability of a couple to achieve pregnancy for at least one year of trying to do so without using any means of birth control (Nouriani, 2006). It is perceived as a problem across virtually all cultures and societies and affects an estimated 10-15% of couples of reproductive age. It has been viewed differently in different cultures. The population in developed, developing and underdeveloped countries hold are different attitudes regarding infertility. In underdeveloped and developing countries, infertility may be linked to an act of God, punishment for sins of the past, prolonged use of contraceptives, distinct dietary habits, and the result of witchcraft which is causing childlessness whereas people in developed countries viewed infertility as caused by biological and other related factors. [Bharadwaj, (2000); Bovine, Bunting, Collins, and Negron (2007); Van Balen and Gerrits (2001)] Individuals who are thought to be infertile are generally relegated to an inferior status, and stigmatized with many labels. As a result, childlessness has varied consequences through its effects on societies and on the lifestyle of individuals. Though in some cases, the childless life style enhances life satisfaction for some individuals, yet it is diminishing for others, for whom parenthood is a personal goal.

Parenthood is one of the major transitions in adult life for both men and women. The stress of the non-fulfillment of a wish for a child has been associated with emotional related problems such as anger, depression, anxiety, marital problems, sexual dysfunction, and social isolation. Couples experience stigma, sense of loss, and diminished self-esteem in the setting of their infertility. Among infertile couples, in general, women show higher levels of distress than their male partners. Both men and women experience a sense of loss of identity and have pronounced feelings of incompleteness and incompetence.

A number of studies have found that infertile women underwent high psychological distress than normal counterparts. The incidence of depression in infertile couples presenting for infertility treatment is significantly higher than in fertile controls, with prevalence estimates of major depression in the range of 15-54% (Chou, 2004). Anxiety has also been shown to be significantly higher in infertile couples when compared to the general population, with 8-28% of infertile couples reporting clinically significant anxiety (Anderson, Grigsby, & Freedland, 2003). To find out psychopathology associated with infertility among Kuwaiti women, Zahid (2004) reported that the infertile women exhibited significantly higher level of psychopathology in the form of tension, hostility, anxiety, depression self-blame, and suicidal ideation. It clearly suggests childlessness results in social stigmatization for infertile women and places them at risk of serious social and emotional consequences.

Subjective well-being and Quality of life among infertile couples have been examined and investigated by researchers. Group comparisons (voluntarily childless, involuntarily childless or mothers) indicated that, when compared to involuntarily childless women, voluntarily childless women show higher levels of overall well-being, rate themselves as more autonomous with greater environmental mastery, and are less likely to have a child– related regrets (Jeffries & Konnert, 2002). Infertility can have a serious effect on both the psychological well-being and the social status of women in the developing world. A large number of women experienced social consequences including marital instability, stigmatization, and abuse. All women verbalized intense emotions about their involuntary childlessness (Dyer, Abrahams, Hoffman, & Vander Spuy, 2002). Stress associated with the inability to have a child is linked to aspects of marriage and several dimensions of life quality.

A causal model suggests infertility related stress has both direct and in-direct effects. The negative effects infertility related stress on life quality are stronger for females than males (Andrews, Abbey, & Halman, 1991). Infertility is a major negative life event which has deleterious effects on women's and man's subjective well-being. The results of structural equation modeling indicated that it had indirect negative effects on self-esteem, internal control and interpersonal conflicts (Andrews & Halman, 1992). Infertile Iranian women were studied to investigate women's health related quality of life and their cognitions regarding parenthood, a stronger inverse correlation was found between irrational parenthood cognitions and quality of life (Aliych & Laya, 2007). Dyer, Vander, Mokoena, Lombard, and Vander Spuy (2005) explored the concerns and experiences related to involuntary childlessness of infertile women, a large number of women experienced negative social consequences including marital instability, stigmatization and abuse.

Infertility is a low-control stressor in which the infertile couple can do little or nothing to influence the nature or the outcome of their situation (Terry & Hynes, 1998). in response to low-control situations, it is likely that problem-focused coping strategies aimed at managing the situation actively may have deleterious effects, while emotion-focused coping strategies could be adaptive. Review of the literature related to coping among infertile women has confirmed that coping strategies towards managing negative emotions in stressful encounters demonstrate positive associations with maladaptive outcomes (Austenfeld & Stanton, 2004). Longitudinal studies among couples or women in IVF treatment (Hynes, Callan, Terry, & Gallois, 1992; Litt, Tennen, Affleck, & Klock, 1992; Verhaak, 2003) and among couples in donor insemination (Berghuis & Stanton, 2002) have shown that problem-appraisal strategies were a predictor of better adjustment (Terry &

Hynes, 1998) and approach-oriented coping (including problem-focused, emotional processing, and expression) was related to lower distress (Berghuis & Stanton, 2002). Avoidance or escape coping was a predictor of poor adjustment to infertility and of increased distress after one treatment attempt. An in-depth study by Larissa (2000) explored the experience of infertile Jewish women in Israel. The findings revealed that women's coping strategies included selective disclosure, avoidance of exposure of their "hidden disability", and other information management techniques.

In a similar study, van den Akker (2005) carried out to explore coping style, quality of life and psychological symptoms among three groups of sub-fertile women found higher Mental Disengagement and Denial Coping strategy scores for the ART group. A study on gender differences by Pottinger, Mckenzie, Fredericks, DoCasta, Wynter, Everett, and Walters (2006) found the coping skills that were commonly used by the couple included seeking medical advice and engaging in wishful thinking. This study concluded that women coping with infertility may be at risk for self-depreciation and isolation. As a result, they are likely to experience more heightened distress than men who are also infertile.

Method

Sample:

The present study was conducted on a sample of 200 women, 100 infertile and 100 normal women. The criteria for infertile women were that they must have age above 20 years, willing to conceive, having length of marriage at least three years, and given consent to participate in the study whereas exclusion criteria were age above 45 years, having any physical illness which prevents them from conceiving, and suffering from any neurological or psychiatric illness. The inclusion and exclusion criteria for normal women were same as infertile women except having child. The selected sample consisted of women from all walks of life and from all communities. The sample was collected from various private clinics and Government Maternity Homes in Chandigarh and two districts of Haryana i.e. Hisar and Kurukshetra.

Tools:

i. Subjective W ell-Being Inventory (SUBI): It was constructed by Shell and Nagpal (1992). The subjective well-being inventory is designed to measure feeling of well-being or ill-being as experienced by an individual or a group of individuals in various day-to-day life concerns. It consists of 40 items. The Inventory measures 11 dimensions of subjective well-being. The mean score on normal adult Indian samples is 90.8 with a standard deviation of 9.2.

ii. Coping Responses Inventory (CRI):It was a widely used inventory to measure several coping responses. This scale was constructed by Moos (1993). It is a 48-item inventory. It measures eight different types of coping responses to stressful life events. This can be used for both male and female. The scale has internal consistency from .61 to .74 for different sub-scales.

iii. G eneral H ealth Q uestionnaire (GHQ):It was constructed by David Goldberg (1978).The General Health Questionnaire (GHQ) was designed to be a self-administered screening test. The questionnaire was designed to be easy to administer, acceptable to respondents, fairly short, and objective. The main focus of the test is to screen the psychological components of ill-health. The two shorter versions which have been mostly used are the GHQ-12 and the GHQ-30. On complete questionnaire of GHQ the split half reliability was found to be .95. Banks et al. (1980) reports Cronbach's alpha on GHQ-12 range form.82 to .90.

Results

The perusal of the Table 1 reveals that infertile and normal subjects differ significantly on five of the eight variables of coping. Infertile

women have scored significantly lower than their normal counterparts. The second measure in this study is Subjective Well-being (SWB). On nine out of eleven domains, both infertile and normal subjects differ significantly. Two variables, Confidence in Coping and Perceived Ill Health have not shown any difference between the groups. The results show that both the infertile and normal group differs significantly on the measure of psychological distress. The F-ratio for the measure is 39.64, which is significant at .01 level of probability. The mean score for infertile women is 3.35 as compared to 1.24 for normal women. It may be interpreted as infertile women undergo more psychological distress as compared to their normal counterparts.

Table-1 Mean and SD F-Ratio of Infertile and Normal Group s

Normal Variables	Group Mean	Infertile SD	Group Mean	SD	F
Logical Analysis	17.59	2.72	16.47	2.06	10.76*
Positive Re-appraisal	18.39	2.81	17.02	2.60	11.76*
Seeking Guidance and Support	19.12	2.48	19.22	2.44	.26
Problem Solving	17.84	3.69	16.13	3.41	11.58*
Cognitive voidance	16.56	2.63	15.71	2.48	7.10*
Acceptance/ Resignation	14.09	2.68	14.09	2.52	.15
Seeking alternative Rewards	17.94	3.97	16.24	3.03	6.15*
Emotional Discharge	13.61	2.04	13.82	2.49	.11
GWB-Positive Affects	6.98	1.36	5.64	1.42	49.27*
Expectation Achievement Congruence	6.71	1.38	5.15	1.38	64.24*
Confidence in Coping	6.37	1.22	6.32	1.35	.06
Transcendence	7.61	1.08	4.78	1.16	345.9*
Family Group Support	5.77	1.19	6.44	1.20	16.27*
Social Support	5.97	1.30	6.89	1.58	32.13*
Primary Group Concern	6.93	1.78	4.14	1.60	160.6*
Inadequate Mental Mastery	14.65	2.39	13.19	2.31	20.69*
Perceived ill-health	13.82	1.99	13.41	1.98	4.15**
Deficient Social Contacts	7.11	1.26	6.27	1.39	18.33*
GWB-Negative Affects	8.25	1.37	6.35	7.88	61.71*
Psychological Distress	1.24	3.62	3.35	3.61	39.64*

*p< .01 ** p< .05

In order to examine whether a set of certain variables tapping distress, coping resources, and subjective well being differentiate between infertile women and normal group, the data were subjected to Discriminant Analysis. To find the most potent predictors of group membership, the stepwise method of Discriminant Analysis was employed (Tabachnick & Fiddle, 1989).

Table-2 Summary of Discriminant Functional Analysis

Step	Variable	Wilks Lambda	df	F
1	Transcendence	.365	1/199	345.91**
2	Primary Group Concern	.277	2/198	258.01**
3	G W B- Negative Affects	.243	3/197	204.94**
4	Inadequate Mental Mastery	.228	4/196	166.05**
5	Confidence in Coping	.218	5/195	139.94**

**p<.001

Table 2 presents the results of stepwise discriminant analysis. A perusal of the table indicates that five of twenty variables measured in the study contribute significantly to the prediction of group membership i.e. infertile and normal. All the five variables are the components of subjective well being. The Wilks Lambda coefficient is decreasing with the entry of additional variable up to 5th step. It is pertinent to mention here that lower Lambda value is an indication of greater discrimination by the variables in equation. If the value of Lambda is exactly 1.00 the variable does not make any differentiation between the groups. The Lambda coefficients at each step are. 37, .28, .24, .23, and .22, respectively for the variables of Transcendence, Primary Group concern, General well being-negative affects, Inadequate Mental Mastery , and Confidence in coping.

The variable Transcendence, being the major contributor to the group discrimination entered the equation at step one. The F-value of its discriminant function equals to 345.91 (df =1/199), which is significant at .001 probability. Therefore Transcendence or relatedness may be regarded as most potent discriminant among infertile and normal women. The second important variable with regard to discrimination between the groups is Primary Group Concern, which entered in the equation at step two. The F-value of the contribution of two variables in equation is 258.01 (df 2/198), which is significant at .001 probability level. It is also clear from the descriptive statistics that infertile and normal women differ significantly on Primary Group Concern. General Well-being Negative Affects entered the equation at step three with F-value of 204.94, df being 3/197, and probability less than .001 and contributed Wilks Lambda of .243.

Inadequate Mental Mastery contributes Lambda coefficient of .23, the F-value being 166.05, (df 4/196), its contribution is also statistically significant. The last variable that qualifies the entry criterion was Confidence in Coping. With the entry of this variable the Wilks Lambda reduced to .22. The F-value being 139.94 (df 5/195), it is also significant at .001 probability level. The efficiency of the five variables entered in the equation is clearly evident from the predicted group membership in infertile and normal groups.

Table-3 Predicted Classifications of infertile and Normal Women

	Infertile	Normal	%
Infertile	98	4	98%
Normal	2	96	96%
Total	100	100	97%

It is clear from the predicted frequencies given in the Table 3 that out of 100 cases of infertile group, 98 were correctly identified as infertile, by the discriminant analysis defined by five variables. On the same pattern 96 out of 100 cases in normal group were identified as normal. The percentage of correct identification cases is 98% among normal

group. Overall 97% of the cases could be identified correctly by the equation loaded with five variables.

Discussion

The findings of the present study are revealing and interesting in many respects. The present study was conducted to examine the differences among infertile and normal groups of women on several variables such as psychological distress, subjective well being and coping resources. The data proved that both the groups had significant differences on the variables studied in the present research work. In this sense, it provides empirical support to the findings of earlier workers (Aliyeh & Laya, 2007; Julia, 2003; Weiguo & Guiping, 2007; Zahid, 2004; Zheng & Randy, 2002).

Infertile and normal women differ on a number of variables related to psychological distress, subjective wellbeing, and coping resources. The results of mean differences clearly suggest that infertile women underwent higher level of psychological distress due to their infertility problem. Because of psychological distress, these women develop certain associated psychological disorders which affect both physical as well as mental health of women. Though infertility affects both men and women but the overall consequences and effects tend to be higher among women as compared to men. Earlier researches (Zahid, 2004; Zheng & Randy, 2002) revealed that fertile women exhibited a significant higher level of psychopathology in forms of tension, anxiety, depression, self-blame and suicidal ideation. The results of the present study are consistent with earlier studies. These results can be discussed in the light of culture and societal attitude regarding infertility. In most of the male dominant cultures, women faced most of the problems even due to the infertility of the males. In the present study, significant differences have been found between infertile and normal women on psychological distress and the level of psychological distress among infertile women is much higher than their normal counterparts.

Both infertile and normal women also differ in coping resources. The coping styles adopted by both the groups are associated with their behavioural description. Interestingly, normal women were found to be higher on cognitive avoidance as compared to their infertile counterparts. It suggests that infertile women are not able to avoid the situation cognitively and they involve in continuous thinking about their problems. They also involve less in problem solving and seeking rewards. Larissa (2000) explored that most of the infertile women become fully internalize and encapsulate themselves because of infertility. In some of the earlier studies, it was also found that infertile women adopted maladaptive coping strategies (Peterson & Brennan, 2002; Pottinger et al., 2006). The coping styles of infertile and normal women differ on some other dimensions also. Apart from avoidance and problem solving coping strategies, infertile and normal women differ on their problem solving, and problem focusing strategies. Both the groups differ on logical analysis and positive reappraisal strategies. In this respect, both the groups differ when they analyze and reappraise the situations. The problem of infertility not only affects the physical health but also the overall quality of life. The quality of life of the infertile women is found to be poor than their normal counterparts. Earlier research reviews (Aliyeh & Laya, 2007; Andrews et al., 1991; Harold, 1987) also showed the same trend among infertile women.

The findings of the present study revealed that infertile women have poor wellbeing on all the dimensions as compared to normal women. They have high negative feelings, low self-esteem, poor social support, less freedom and less number of opportunities as compared to normal women. The measure of subjective well-being indicates that there is

a marked difference between infertile and normal women. Earlier researchers (Andrews et al., 1991; Backman, 1982; Connidis & McMillan, 1993) revealed that infertility has detrimental effect on women's subjective wellbeing. The infertile women show less positive affects as compared to normal counterparts. They perceived larger gap between expectations and achievement, low feelings of belongingness, low concern for primary group, deficient in social contacts. But one interesting finding is that family group support and social support are perceived to be higher among infertile women as compared to normal ones. This suggests a change among the attitude of family members regarding infertility.

The findings of Discriminant Analysis are more revealing than t test. These results clearly suggest that infertility significantly affects the distress, coping, and well being among women. Discriminant Functional Analysis found marked difference between infertile and normal aspects with regard to subjective well being. Five variables of subjective well being i.e., Transcendence, Primary Group Concern, General Well Being-negative affects, Inadequate Mental Mastery and Confidence in Coping have appeared to be the major variable that differentiates between the groups. In these respect, the Discriminant Functional Analysis has proven very useful in identifying the cluster of variables which differentiate between infertile and normal women. It can be concluded that subjective wellbeing is the main factor that differentiate between infertility and normalcy.

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