THE MOTHERHOOD CHALLENGE: EXAMINING THE ROLE OF COPING STYLES AND PERSONALITY IN INFERTILE WOMEN

Shashi Darolia* and Debasruti Ghosh**

ABSTRACT

Infertility evokes an enormous amount of psychological distress in women. The chronic nature of the diagnosis has been associated with depression, anxiety and problems related to body image. Apart from the medical treatment paradigm involved in Assisted Reproductive Technology (ART), current approaches also focus on understanding and addressing the psychological problems related with the condition. Studies have pointed out that adaptive coping approach reduces the impact of these psychological problems. The aim of this study was to explore the differences between women who have been diagnosed with infertility (N=30) and matched normal fertile controls (N=30) on personality and coping styles. Formal Characteristics of Behavior Temperament Inventory (FCB-TI) was used to investigate personality aspects and Coping Styles Questionnaire was used for coping pattern. Statistical analysis of data revealed that infertility group scored significantly lower than control group on temperamental dimension Briskness (p< .01) and Sensory Sensitivity (p< .05). The results further revealed that infertile women differed significantly in coping patterns and primarily resorted to Emotional (p< .01) and Avoidance coping (p< .001) methods. On the basis of obtained results it can be concluded that women with infertility use emotional and avoidance approach, but not rational, which can be a reason of stress and anxiety in them. They also cannot adapt to changes easily and seem to brood over their problems. Hence, it is imperative that psychotherapeutic approaches should focus on enhancing rational coping in infertile women.

Keywords: Infertility, coping, personality, avoidance

Motherhood is marked as an important life transition, and inability to achieve pregnancy leads to both physical and psychological burden. The master status

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model of infertility assumes that when motherhood is considered as the master status by women who are childless, they experience a lot of frustration and psychological distress, since they relate it to their sense of identity and completeness (McQuillan et al., 2003). The World Health Organization defines infertility as “a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse and reproductive age being between 14 and 49 years” (WHO, 2016). It further classifies infertility into primary infertility which means the couple has never been able to conceive and secondary infertility which implies that the couple has experienced a pregnancy before but failed to conceive later. The World Health Organization estimates the overall prevalence of primary infertility in India is between 3.9 to 16.8% (WHO, 2004). In Indian context, the concept of marriage rests on procreation and still in many parts of the country infertility is perceived to be a female problem. With this cultural endowment the diagnosis of infertility comes as a life crisis situation. The psychosocial sequel of infertility includes infertility stress, marital conflict, social isolation, embarrassment and sense of incompetency (Fekkes et al., 2003; Monga et al., 2004).

Infertility stress is a burden posed by inability to conceive and it hampers personal, marital, and social life domains of people who have been diagnosed with infertility (Schmidt et al., 2005). Stress often acts as trigger to engage in maladaptive health attitudes and lifestyle behaviours such as dysfunctional eating attitudes and behaviours (Keyes et al., 2011; Klatzkin et al., 2006; Kouvonen et al., 2005). Gender based studies have concluded that infertile women feel more stress about their condition and experience more depressive symptoms than infertile men (Berghuis & Stanton, 2002; Kroemeke & Kubicka, 2018). Studies which have focused on coping patterns in infertility have revealed that the diagnosis may have direct relationship with manifestation of negative health behaviours known to compromise reproduction (e.g. alcohol and drug consumption, smoking, poor sleep and weight status) (Gormack et al., 2015; Homun et al., 2007; Rooney & Domar, 2014). Hence, it is imperative to understand as to how infertile people cope with this stressful situation.

Coping is defined as a response to a perceived stressor which involves cognitive and behavioural strategies aimed at reducing the psychosocial and physical burdens of an event which is viewed as taxing or exceeding the resources of that person (Lazarus & Folkman, 1984). When faced with stressful situation people respond with different coping strategies. Coping strategies have been discussed from various perspectives such as problem focused coping and emotion focused coping. There is evidence that if infertile women made use of problem focused strategies then they are most likely to respond positively to In Vitro Fertilization (IVF) procedures whereas use of emotion focused approach are less likely to achieve positive outcomes (Henry et al., 2018). Evidence suggests that women use more emotion-focused coping method in case of their infertility.
(Jordan & Revenson, 1999). In the context of infertility specific coping strategies used are active and passive avoidance which involves doing behaviours to keep away from stressors (e.g., avoiding being in front of children); meaning based coping strategies which include concentrating on other major life goals and active confronting coping approach involves problem solving techniques such as collecting information or positive reappraisal (Casu et al., 2019). Studies have reported that active confronting coping and meaning based coping play an adaptive role (Martins et al., 2011) whereas, active and passive avoidance have adverse effect on infertility stress (Peterson et al., 2008; Martins et al., 2011).

Apart from coping strategies, individual differences based on personality aspects of infertile women are accountable towards the psychosocial dynamics of the disease. Some investigations have found unusual personality attributes in infertile couples, which are speculated to be both the cause as well as consequence of infertility (Csemiczky et al., 2000). Introversion, mistrust, anxiety, guilt feeling, excessive attachment to one’s own ideas were significantly more in infertile people than in fertile controls (Noorbala et al., 2007). Neuroticism is also associated with greater stress in situations of infertility (Lopes and Leal, 2012). Neuroticism scores are related to negative pregnancy test in women after IVF treatment and depression and anxiety in infertile men (Volgsten et al., 2010). Studies involving psychobiological model of personality have found the trait harm avoidance to be the predictor of functional infertility. High scores in this trait depict that infertile women are cautious, passive, fearful, and insecure (Fassino et al., 2002). Women with infertility also show narcissism as reported by an Indian study (Poddar et al., 2014). They have concluded that narcissism acts as a defence to compensate their sense of insufficiency.

As pointed above both personality attributes and coping mechanisms are important aspects in the context of infertility. The current study aims to explore the personality and coping styles in women diagnosed with infertility and compare it with control group.

**Hypotheses**

1. There is no difference in the coping style of infertility group and matched normal group.
2. There is no difference in the temperament profile of infertility group and matched normal group.

**METHOD**

**Design**

The research used a cross sectional design with a case control approach to draw a comparison of personality attributes and coping styles between women with infertility and matched normal controls.
Sample

The participants were recruited through purposive sampling from out-patient department of Shree Hospital and Maternity Center. The criteria for inclusion in the experimental group (infertile women) contained of a medical diagnosis of infertility and no associated psychiatric disorder. The sample comprises 60 cases, 30 women diagnosed with primary or secondary infertility and 30 women who were already mothers. They were selected by matching on the basis of age. The age range of the participants was from 23-40 years and of the 60 participants 8 lived in rural settings and 16 in sub urban area and 36 lived in urban areas.

Tools

Formal Characteristics of Behavior-Temperament Inventory (FCB-TI): The Formal Characteristics of Behaviour-Temperament Inventory was developed by Strelau and Zawadzki (1993) in Polish. The study used the Indian adaptation of FCB-TI (Darolia & Kumar, 2003) to measure six basic dimensions of temperament/personality. The Indian version of FCB-TI was developed by conducting item analysis on original item pool of 381 items translated into Hindi. The FCB-TI (Indian adaptation) comprises 120 items which tap six temperamental traits: Briskness, Perseverance, Sensory Sensitivity, Emotional Reactivity, Endurance, and Activity. The reliability of the scale was estimated in terms of coefficient alpha (KR-20). The alpha coefficients were found to be 0.76 for Briskness, 0.78 Perseverance, 0.74 Sensory Sensitivity, 0.79 Emotional Reactivity, 0.83 Endurance, and 0.82 for Activity. The construct validity of the scales was ascertained through separate factor analysis of energetic and temporal scales. Five temporal scales clustered together to form two temperamental factors and seven temporal scales converged into four temperamental traits.

Coping Styles Questionnaire (CSQ): The Coping Styles Questionnaire (Rogers et al., 1993) assesses coping strategies for emotional events. The CSQ a 41-item scale comprises four subscales which provide measurement of rational coping, detached coping, emotional coping, and avoidance coping. The participants are instructed to describe how they typically react to stress on a four point scale for each item. The scores for each style are summed to get common pattern of coping. The reliability of CSQ was estimated in terms of test-retest and internal consistency. The test-retest coefficients with 3 months time interval were found to be .80 for rational, .79 for detached, .76 for emotional, and .70 for avoidance. The alpha coefficients were .85 for rational, .89 for detached, .73 for emotional, and .69 for avoidance coping. For concurrent validation of CSQ the scores were correlated with scores on Emotional Control Questionnaire (Roger & Najarian, 1989).
Procedure

The participants were explained the purpose of the study. Those who expressed their willingness and gave consent to participate in the study were given the questionnaires. Their queries were addressed adequately. In overall, testing sessions were satisfactory, the participants were very cooperative and they completed the questionnaires in the presence of the investigator. The responses were scored for six FCB-TI scales and four CSQ scales in accordance with the procedure outlined by respective authors.

Statistical Analysis

The obtained data were subjected to statistical treatment via IBM SPSS version 20 for descriptive statistics and \( t \) test.

RESULTS

Table 1 shows the means, standard deviations, and \( t \)-ratios of four scales of coping styles questionnaire (CSQ). The \( t \) values entered in sixth column of the table show that infertility and normal groups differ significantly on all the four coping styles. Infertility group was found higher on emotional (\( t = 2.62, p < .05 \)), detached (\( t = 16.74, p < .001 \)) and avoidance coping (\( t = 6.27, p < .001 \)), however on rational coping normal group stood higher (\( t = 24.22, p < .001 \)). The mean scores of the infertility group and normal group are 21.73 and 20.63 on emotional, 22.60 and 13.93 on detached, 23.73 and 20.00 on avoidance, and 10.70 and 20.10 on rational coping, respectively. Figure 1 presents a comparative picture of infertile and normal group in respect of coping styles adopted by these groups.

<table>
<thead>
<tr>
<th>Coping Styles</th>
<th>Infertility Group</th>
<th>Normal Group</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \text{Mean} )</td>
<td>( \text{SD} )</td>
<td>( \text{Mean} )</td>
<td>( \text{SD} )</td>
</tr>
<tr>
<td>Emotional</td>
<td>21.73</td>
<td>1.76</td>
<td>20.63</td>
<td>1.49</td>
</tr>
<tr>
<td>Detached</td>
<td>22.60</td>
<td>2.51</td>
<td>13.93</td>
<td>1.31</td>
</tr>
<tr>
<td>Avoidance</td>
<td>23.73</td>
<td>1.76</td>
<td>20.00</td>
<td>2.74</td>
</tr>
<tr>
<td>Rational</td>
<td>10.70</td>
<td>1.46</td>
<td>20.10</td>
<td>1.53</td>
</tr>
</tbody>
</table>

The means, SDs and \( t \)-ratios of temperament traits for infertility and normal group are entered in Table 2. Results show that on Briskness trait of FCB-TI normal group scored significantly higher (\( M = 16.30 \)) than the infertility group (\( M = 12.17 \)), the \( t \)-ratio of mean difference equals to 8.61 (\( p < .001 \)). Similarly, on Sensory Sensitivity normal group scored significantly higher (\( M = 12.47 \)) than the infertility group (\( M = 10.20 \)), the \( t \)-ratio of mean difference is 4.50 (\( p < .01 \)). On remaining temperament traits - Perseverance, Emotional Reactivity, and Endurance infertility and normal groups scored more or less the same. The Figure 2 is
indicative of the pattern of scores obtained by both the groups on temperament traits in a simplistic way.

![Figure 1. Comparison of Mean scores of Infertility and Normal Group on Coping Style Scales](image1)

**TABLE 2**

Means, Std. Deviations, and t-ratios of Temperament Scales

<table>
<thead>
<tr>
<th>Temperament Scales</th>
<th>Infertility Group</th>
<th>Normal Group</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Briskness</td>
<td>12.17</td>
<td>2.04</td>
<td>16.30</td>
<td>1.66</td>
</tr>
<tr>
<td>Perseverance</td>
<td>14.67</td>
<td>3.36</td>
<td>15.27</td>
<td>2.98</td>
</tr>
<tr>
<td>Sensory sensitivity</td>
<td>10.20</td>
<td>1.40</td>
<td>12.47</td>
<td>2.36</td>
</tr>
<tr>
<td>Emotional reactivity</td>
<td>14.63</td>
<td>2.31</td>
<td>14.13</td>
<td>2.65</td>
</tr>
<tr>
<td>Endurance</td>
<td>14.40</td>
<td>2.79</td>
<td>15.40</td>
<td>2.63</td>
</tr>
<tr>
<td>Activity</td>
<td>13.83</td>
<td>1.70</td>
<td>13.53</td>
<td>1.94</td>
</tr>
</tbody>
</table>

![Figure 2. Comparison of Mean scores of Infertility and Normal Group on Temperament Scales](image2)
DISCUSSION

The study was aimed to examine the pattern of differences in temperament and coping styles of infertile women and normal control (mothers those who have children). The obtained results provide a strong evidence of differences in coping style of infertile women and their normal counterparts. This finding rejects the null hypothesis. Women with infertility problem have scored higher on emotional, detached, and avoidance coping methods, whereas normal controls have scored higher on rational coping. This significant difference in the coping style of infertile women in itself is detrimental to their wellbeing and mental health. Because emotional and avoidance coping styles are the subsets of maladaptive coping. They are not able to manage rational way of coping, which is a subset of adaptive coping (Roger, Jarvis, & Najarian, 1993). It points a gamut of psychological strain they experience which is involved in dealing with the diagnosis of infertility. Some other studies have also reported that avoidance strategies have a negative impact on infertility stress (e.g., Peterson et al., 2008, Martins et al., 2011). The avoidance and detached approach can also be explained with the stigma associated with infertility in Indian culture.

As implicated in the master status model of infertility that when the desire for motherhood is not achieved, it leads to poor psychological adjustment (McQuillan et al., 2003; Hess et al., 2018). This leads to the detachment pattern and social withdrawal in infertile women. Detachment strategies may be more effective as a primary reaction to the cause of stress when the emotional arousal is high and the situation perceived to be out of control. Studies supporting faulty coping patterns in infertility have often cited evidences of painful treatment procedure, and maternal emptiness as cause of stress (Endler et al., 1993). On the other hand the control group (mothers) resorted to rational coping strategy which is indicative of their positive energy and ability to handle stressful situations and self- fulfillment. The study used FCB-TI instead of any conventional measure personality in order to understand basic source of individual difference in adult personality, which is based on the regulative theory of temperament (Strelau, 2008). This theory relates temperament to biological factors. The theory asserts that temperament is involved in regulating arousal levels by determining ability to cope effectively with stimuli, meet the environmental demands and influences individual’s behaviors. The other reason behind using this paradigm in our study was to understand the role of biological arousal in causing infertility stress and how the temperament pattern might be accountable to the reactions to stress and use of coping strategies. The hypothesis that there will be no difference in the personality profile of infertile women and normal controls was negated. The obtained results based on the analysis of personality reveal significant difference in the Briskness and Sensory Sensitivity dimension between infertile women and controls. Briskness enables an individual to react quickly to the changing
surroundings and maintain an optimal level of arousal in performing activities. In our study women with infertility scored low on the briskness factor, which indicates that they are slow to react in changing situations and perform poorly in activities. This characteristic explains the proneness of infertile women to stressful situations. This attribute contributes to their inability to handle infertility stress due to which they resort to faulty coping strategies.

The findings of the study indicate that women with infertility are low in Sensory Sensitivity dimension as well. This temperament trait relate to the ability to perceive and to react to weak sensory stimuli. This is indicative that infertile women fail to notice the minute aspects of a situation. This can contribute to their inability to use adaptive coping strategies in dealing with infertility stress. There is hardly any study using this paradigm of personality. Studies in personality have mostly indicated neurotic tendencies associated with infertile women which have a negative impact on handling stressful situations (Lopes & Leal, 2012; Volgsten et al., 2010). Based on temperament studies it has been seen that women with infertility have scored high on harm avoidance which shows such similar pattern of avoiding stress and failure to take risk and initiate new tasks. It also depicts that they have fluctuating serotonergic levels and might have depressive tendencies (Fachhin et al., 2016). Even when infertile women have been described as neurotic, dependent, anxious, or emotionally distressed, such personality traits and emotional disturbances have never been demonstrated to be the major cause of their infertility. But it definitely affects the functional ability of infertile women.

CONCLUSION

On the basis of the findings of the study and ongoing discussion it can be concluded that infertile women are more prone to stressful situations than mothers of the same age. Both personality factors and use of faulty pattern of coping equally contribute to this proneness. They use emotional and avoidance coping strategies to deal with stress, which are accountable for the increase in functional problems and poor psychological adjustment. Although the Assisted reproductive technology (ART) procedures have increased the chances of pregnancy for women diagnosed with infertility, the painful surgical procedures and financial burden of the treatment are additional sources of stress. Some centers in India include psychological counseling along with medical treatment to address psychological issues. However it should not be limited to just solving minor issues. Psychological interventions focusing on reappraisal strategies to cope with the psychological burden of infertility as well as specialized therapy modules to address infertility specific psychological problems and broader issues must be included as well. The study has some limitations; it is restricted as it taps the female aspects of the diagnosis. Future studies focusing on this issue must concentrate on understanding the psychosocial dynamics of male infertility.
Compliance with Ethical Standards

Conflict of interest: All the authors declare that they have no conflict of interest.

Informed Consent: Written informed consent was obtained from participants for the study.

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REFERENCES


