Risk Factors for Postpartum Depression, Interpersonal Relationship Anxiety, Neuroticism and Social Support in Women with Postpartum Depression

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Abstract
Present study investigated the relationship between risk factors for postpartum depression, neuroticism, anxiety and lack of social support and postpartum depression in women. Further, the study also explored risk factors for post-partum depression and lack of social support as the predictors of anxiety and neuroticism in women whereas risk factors for postpartum depression, anxiety and lack of social support as the predictors of postpartum depression in women. Sample comprised of 100 women already diagnosed with postpartum depression was recruited from different public hospitals. Edinburgh Postnatal Depression Scale (Cox, Holden & Sagovsky, 1987), Multidimensional Scale for Perceived Social Support (Zimet, Dahlem Zimet & Farley, 1988), Interpersonal Relationship Anxiety Questionnaire (Rohner, 2012) and IPIP Big Five Personality Measurement Instrument-Neuroticism Scale (Khan, Khan, Ghani & Shafi, 2013) were used to measure postpartum depression, social support, interpersonal relationship anxiety and neuroticism respectively. Results revealed significant positive relationship between risk factors for postpartum depression, neuroticism, anxiety and lack of social support. Neuroticism, lack of social support, self-neuroticism and history of abortion were found as significant predictors of postpartum depression and interpersonal relationship anxiety.

Keywords: Postpartum Depression, neuroticism, anxiety, social support

I. Introduction
Depression is a disorder that produces changes in physical, psychological, emotional and motivational areas which ultimately affect body’s metabolic system and develop medical illness (WHO, 2002). WHO (2002) placed depression as a second highest leading illness in the world that displays wide range of influence on the society in general and on the individuals in particular. Beck (1967) described five aspects of depression i.e., alteration in mood, negative self-concept, regression and self-punitive wishes, vegetative change and change in activity level including retardation or agitation.
is related while Paolucci and Paolucci (2007) defined depression as manifestation of either psychological or physical symptoms or can be a combination of both. Sue, D., Sue, W., Sue, D., and Sue, S. (2014) and Neale and Davidson (2013) define depression as manifestation of low mood and disturbance in cognition, behavior and physical activities. Different theoretical models have defined depression in different ways e.g., cognitive behavioral model presented by Beck (1996) defines depression is the outcome of complex interaction of multiple factors comprising environmental, cognitive and behavioral aspects which also include cognitive distortion of events, processes and their products and structures, affect, environmental contexts and overt behavior (Warchola, 2007).

According to the integrative theory of depression (Lewinsohn, Hoberman, Teri & Hautzinger, 1985), depression occurs due to chronic difficulty (marital conflicts, problems at the work place & social problems), micro (being criticized or rejected or humiliated) and macro stressor (being disabled, losing job or sustaining a traumatic injury) which put the individual into complex state of experiencing emotional disturbances and negative automatic thoughts which affect mood and consequently develop depression (Chan, Cardoso & Chronister, 2009).

Psychosocial model of depression included aspects like dysfunctional beliefs, distorted cognitions, maladaptive thinking patterns, distressed relationships, stressed environment, anaclitic personality types, and social skills deficiencies (Oster & Caro, 1990).

Depression can also occur due to the combination of biological and psychological causes e.g., the imbalances and deregulations in the biochemical of the brain while psychological causes arises from the events and experiences that have a negative and harmful effect on the individual (Henderson & Rosenbaum, 2005). Most of the biological specialists believed that psychosocial triggers and stressors set the ground for changes in the biological rhythms and neurological mechanisms for depression. Many psychological correlates linked with the progression of depression i.e., low self-esteem, conflict between self-perception and ideals, neuroticism and anxiety (Bibring, 1953 as cited in Alladin, 2007).

Postpartum depression is a type of depression (mood disorder) which is specific to women and can start during pregnancy, after delivery of child and can sustain for many weeks or months. Postpartum depression is progressive in nature in which symptoms occur at biological and psychological level in women and if left untreated can be turned into major depression (DSM-V, 2013). The symptoms of postpartum depression are included depressed/sad mood, lack of interest in daily activities and all other symptoms that are typically for the major depressive episode i.e., weight gain/weight loss, sleep disturbance, psychomotor agitation, fatigue, concentration problem, guilt and suicidal ideation/attempts (Bleichman & Brownell, 1998). Literature have shown many strong predictors of postpartum depression e.g., lack of social support, previous history of depression or anxiety symptoms, neuroticism and many of the stressful life events (Reid, 2013; Robertson, Grace, Wallington, & Stewart, 2004). Many women suffer with postpartum depression due to their personality attributes like self-neuroticism, personal worries, shyness (Robertson et al., 2004) while other agonize with postpartum depression due to lack of social support. Social support is “an interaction network of interpersonal
relationships that provide companionship, assistance, attachment and emotional nourishment to the individual” (Newcomb & Bentler, 1986; p. 304 as cited in Pierce, Lakey, Sarason & Sarason, 1997). Social support is the availability of the people whose support and care can play a role in the adaptive functioning of an individual. It is the system through which individual can rely and can seek help in time of need and overcoming problems. Social support is related to external world of the individual. The greater the role of healthy social support in one’s life, the lower will be the vulnerability to become depressed and going towards psychopathology (Pierce et al., 1997).

Rosenfield (2007) found in a research that changing’s in social support and especially lack of social support was a strong predictor of maternal depression. In another research, Boyce and Todd (2003) studied women with postpartum depression from Australia and found stressful life events, lack of social support, disturbed marital relationships, previous history of depression were significantly related to the postpartum depression (Boyce & Todd, 2003). All these events are also related to disturbed interpersonal relationship and the person develop progressive anxiety and neuroticism which ultimately turn into psychopathic symptoms of depression. Rohner (2015) has given the concept of interpersonal relationship anxiety in his theory of interpersonal acceptance and rejection which is an emotional response that arises when individual’s interpersonal relationships get disturbed (Eysenck, 1992).

Interpersonal relationship anxiety causes distress which interferes with their abilities at home and works and exerts negative effects during pregnancy and postpartum period (Wiegartz & Gyoerkoe, 2009). Prenatal anxiety is a state of anxiety that women experience during pregnancy and it serves as a major risk factor in the onset of neuroticism and postpartum depression. In Finland, prenatal depression and prenatal anxiety were the significant predictors of postpartum depression (Saisto, SalmelaAro, Nurmi & Halmesmaki. 2001). Neuroticism is a trait that includes the symptoms of anxiety, depression, tension, low self-esteem and emotional instability (Eysenck, 1992) and is found to be related to postpartum depression in some researches (Verkerk, et al. 2005). Similarly, research by Bennett (2006) has supported that many social and external factors contributed significantly in the onset and progression of disorder from family to other members in the society and environment. Study by Reid (2013) found that stresses in life have positive relationship with postpartum depression and supportive relationship is negatively associated with postpartum depression in women. The study findings indicated that for married women, support from a husband (partner) was a significant protective factor.

Researches done in Pakistan have found some very important and cultural-related risk factors i.e., maladjusted relationships with husband and in-laws (Gulamani, Shaikh & Chagani, 2013) for postpartum depression. In another research, the findings by Najafi, Zarrabi, Shirazi, Avakh and Nazifi (2007) showed that history of abortion, infant death and unemployment were significantly associated with postpartum depression. These factors are to some extent different from the factors which are found in Western countries as in most of the researches done in Western culture on postpartum depression, the significant predictors were lack of support and previous history of depression (Robertson et al., 2004). Moreover, they found low self-esteem, high childcare stress, high level of neuroticism in women and difficult child temperament as the moderate risk factors.
In another study done in Pakistan conducted by Khooharo, Majeed, Majjed, Majeed and Chaudhary (2010) found that previous history of postpartum depression, joint family structure, lower socio economic factors marital dissatisfaction and domestic violence were significant risk factors for postpartum depression. The study of Khan, Arif, Tahir & Anwar (2009) found that lack of social support results in postpartum depression. Irfan and Badar (2003) found the pressure for son, difficult pregnancy, baby different from the ideal, physical abuse, poor relationship with partner, adverse events during pregnancy, financial problems and problems with in-laws were the risk factors for postpartum depression in women of three major cities of Hazara Division (Haripur, Mansehra, & Abbotabad).

The objectives of the present study included were (a) to see relationship between risk factors for postpartum depression, interpersonal relationship anxiety, social support, neuroticism and depression in women with postpartum depression, (b) to see risk factors for postpartum depression, anxiety, neuroticism and lack of social support as possible predictors of depression in women with postpartum depression.

(a) There is likely to be positive relationship between risk factors for postpartum depression, interpersonal relationship anxiety, lack of social support, neuroticism and postpartum depression in women.
(b) Risk factors for postpartum depression and lack of social support will likely to be the predictors of interpersonal relationship anxiety and neuroticism in women with postpartum depression in women.
(c) Risk factors for postpartum depression, lack of social support, interpersonal relationship anxiety and neuroticism will likely to be the predictors of postpartum depression in women with postpartum depression.

II. Method
A. Participants
A sample of 100 women \( (M = 27.31, SD = 5.20) \) already diagnosed with postpartum depression by a psychiatrist was drawn from different public hospitals. The mean age of the sample was 27.31 (SD= 5.20). Only those women were recruited who were suffering from postpartum depression on or after the birth of a child. All the women were again screened out for depression with the help of Edinburgh Postnatal Depression Scale. Those women were excluded from the sample who was suffering from major depression and who had long history of depression.

Table 1: Demographic Characteristics of the Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>f</th>
<th>%</th>
<th>Variables</th>
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<th>%</th>
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<tbody>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td>Number of pregnancies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>28</td>
<td>28</td>
<td>1(^{st})</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>5(^{th})-10(^{th})</td>
<td>57</td>
<td>57</td>
<td>other</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>12(^{th})-14(^{th})</td>
<td>14</td>
<td>14</td>
<td>Nature of delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masters</td>
<td>1</td>
<td>1</td>
<td>Normal</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td>Caesarian</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>Working</td>
<td>90</td>
<td>90</td>
<td>Children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-working</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Family system</td>
<td>1-3</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
B. Assessment Measures

Risk Factors for Postpartum Depression Scale (RFPPDS; Naveed & Naz, 2014)

RFPPDS is a 46 items scale developed to measure different risk factors for postpartum depression in women. This scale consists of nine sub-scales i.e., relationship with husband and in-laws, lack of social support, women concerns regarding pregnancy, self- neuroticism, history of abortion, difficulties during pregnancy, disturbed relations with husband, coping with problems and history of depression. The responses of RFPPDS are scored on 4-point rating scale where 1 indicates “never” and 4 indicate “always”. The scale also had reverse scoring and the items for reverse scoring were 15, 17, 21, 31, 38, 44 and 48. The scale has excellent value of Cronbach’s alpha i.e., .89 (Naveed & Naz, 2014). The Chronbach’s alpha of the scale for the present study was .87.

Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden & Sagovsky, 1987)

EPDS is a ten items self-reported scale that was used to screen out women with depression. In the present research, Urdu translated version (Rehman, Iqbal, Lovel & shah, 2005) of EPDS was used. Alpha reliability coefficient of the original version was .79 (Cox, Holden & Sagovsky, 1987) while the alpha reliability of the Urdu translated version was .84 (Rahman, et al., 2005). The alpha reliability coefficient for the present study was .72.

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988)

MSPSS (Urdu version, Jabeen & Khalid, 2011) was used to measure social support in women with postpartum depression. The scale consisted of 12 items including three subscales (i.e., family, friends and significant others) with 4 items each was used. The items were scored on 7 point Likert scale ranging from “very strongly disagree” to “very strongly agree”. MSPSS whole scale reliability and internal reliability of the subscales for the original English version is .86 and from .86 to .90 (Zimet, et al., 1988) respectively. Cronbach’s alpha for the Urdu translated version was .90 (Jibeen & Khalid). The alpha reliability coefficient for the present study was .86.

Interpersonal Relationship Anxiety Questionnaire (IRAQ; Rohner, 2013)

IRAQ is a 9-items scale which is used to measure anxiety symptoms in terms of interpersonal relationship. Urdu version of IRAQ (Naz & Kausar, 2012) was used. The Cronbach’s alpha for the Urdu translated version was .93 (Naz & Kausar). The alpha reliability coefficient for the present study was .85.

IPIP Big Five Personality Measurement Instrument- Neuroticism Scale (Khan, et al., 2013)

Indigenous neuroticism subscale of PIP Big Five Personality Measurement Instrument was used. It consists of 24 items measuring neuroticism where items were scored on 5 point rating scale from very inaccurate to very accurate. The Cronbach’s Alpha for the original scale was .88 (Khan, Khan, Ghani, & Shafi, 2013) and for the present study, it was .78.
C. Demographic Questionnaire

Demographic questionnaire was used to obtain participants’ information such as age, education, occupation, number of delivery, nature of delivery, age, education and occupation of the husband, nature of family system, and number of children and monthly family income.

D. Procedure

After the assessment measures were finalized, the sample (already diagnosed with postpartum depression) was screened out by using EPDS. The sample was briefed about the objectives of the research. The women were given informed consent forms to be filled out. They were assured about the confidentiality of their information and anonymity of their identity. They were told that the information will be used only for research purposes. All the assessment was done in hospital settings. No participant showed any kind of discomfort during assessment procedure. Data were analyzed and discussed.

E. Ethical considerations

Permission was gained from the heads of different public hospitals to recruit the sample. Permission was pursued to use assessment measures from the authors. Research participants were told about the objectives of the research. They were assured that their names and responses will be kept confidential. They were also informed that they have the right to quit from the study at any time if they feel uncomfortable. If the participant developed any kind of psychological issue during assessment process, the researcher was responsible to provide psychological services.

III. Results

Table 2: Pearson Correlation between Risk Factors for Postpartum Depression, LOSS, IRA, N and PD

<table>
<thead>
<tr>
<th>Factors</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disturbed Relationship with husband and in-laws</td>
<td>.47</td>
<td>.10</td>
<td>.43</td>
<td>.15</td>
<td>.19</td>
<td>.23</td>
<td>.03</td>
<td>.26</td>
<td>.37</td>
<td>.31</td>
<td>.33</td>
<td>.19</td>
<td>38.46</td>
<td>15.38</td>
</tr>
<tr>
<td>Lack of social support</td>
<td>.18</td>
<td>.45</td>
<td>.10</td>
<td>.25</td>
<td>.19</td>
<td>.17</td>
<td>.19</td>
<td>.38</td>
<td>.31</td>
<td>.53</td>
<td>.29</td>
<td>48.30</td>
<td>9.66</td>
<td></td>
</tr>
<tr>
<td>Women concern regarding pregnancy</td>
<td>.36</td>
<td>.15</td>
<td>.21</td>
<td>.14</td>
<td>.12</td>
<td>.10</td>
<td>.02</td>
<td>.22</td>
<td>.37</td>
<td>.09</td>
<td>29.83</td>
<td>6.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-neuroticism</td>
<td>.09</td>
<td>.48**</td>
<td>.39</td>
<td>.35</td>
<td>.11</td>
<td>.37</td>
<td>.45</td>
<td>.62</td>
<td>.37</td>
<td>67.02</td>
<td>13.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of abortion</td>
<td>.05</td>
<td>.28</td>
<td>.07</td>
<td>.01</td>
<td>.09</td>
<td>.07</td>
<td>.14</td>
<td>.25</td>
<td>4.36</td>
<td>2.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties during pregnancy</td>
<td>16</td>
<td>.04</td>
<td>.08</td>
<td>.11</td>
<td>.33</td>
<td>.35</td>
<td>.17</td>
<td>10.20</td>
<td>4.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disturbed relations with husband</td>
<td>.12</td>
<td>.12</td>
<td>.22</td>
<td>.12</td>
<td>.24</td>
<td>.16</td>
<td>32.47</td>
<td>9.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coping with problems</td>
<td>.05</td>
<td>.01</td>
<td>.10</td>
<td>.30**</td>
<td>.15</td>
<td>11.30</td>
<td>3.49</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of depression</td>
<td>.04</td>
<td>.10</td>
<td>.23</td>
<td>.17</td>
<td>6.53</td>
<td>3.26</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOSS</td>
<td>.13</td>
<td>.31**</td>
<td>.17</td>
<td>29.41</td>
<td>15.65</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IRA</td>
<td>.42**</td>
<td>.20</td>
<td>27.78</td>
<td>5.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>.21**</td>
<td>79.06</td>
<td>13.06</td>
<td></td>
<td></td>
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<tr>
<td>PD</td>
<td>21.12</td>
<td>5.07</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note. N= 100. LOSS: Lack of social support; IRA: Interpersonal relationship anxiety; N: Neuroticism; PD: Postpartum Depression, *<p .05. **<p .01.
Correlational analyses were used to find relationship between risk factors for postpartum depression, interpersonal relationship anxiety, lack of social support, neuroticism and postpartum depression in women. Results revealed significant positive relationship between disturbed relationship with husband and in-laws, lack of social support, women concern regarding pregnancy, self-neuroticism, history of abortion, difficulties during pregnancy, disturbed relations with husband, coping with problems and history of depression, lack of social support, interpersonal relationship anxiety, neuroticism and postpartum depression in women with postpartum depression.

To analyze risk factors for postpartum depression and lack of social support will likely to be the predictors of interpersonal relationship anxiety and neuroticism in women with postpartum depression in women, stepwise regression analysis was employed. The results are presented in table 3.

**Table 3: Stepwise Regression Analyses (forward entry) for Risk Factors for Postpartum Depression Scale as predictors of Interpersonal Relationship Anxiety**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Interpersonal Relationship Anxiety</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>15.18**</td>
<td>(10.03-20.32)</td>
<td></td>
</tr>
<tr>
<td>Self-Neuroticism</td>
<td>.19</td>
<td>(.11-.26)</td>
<td></td>
</tr>
<tr>
<td>( R^2 )</td>
<td>.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( F )</td>
<td>24.47**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \Delta R^2 )</td>
<td>.19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. \( N = 100, **p < .01 \).  

Results indicated that a sub-scale of risk-factors for postpartum depression i.e., self-neuroticism emerged as significant predictor of interpersonal relationship anxiety \((t=4.95, p<.001)\) accounting for twenty percent of the variance. Results show that there was significant positive correlation \((r = .45)\) between self-neuroticism and interpersonal relationship anxiety in women with postpartum depression and the model is overall significant \((F= 24.47, p>.01)\).

**Table 4: Stepwise Regression Analyses (forward entry) for Risk Factors for Postpartum Depression Scale as predictors of Neuroticism**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Neuroticism</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>39.22**</td>
<td>27.56**</td>
<td>(16.26-38.86)</td>
</tr>
<tr>
<td>Self-Neuroticism</td>
<td>.59**</td>
<td>.46**</td>
<td>(.30-.82)</td>
</tr>
<tr>
<td>Lack of social support</td>
<td>.42**</td>
<td>(.21-.65)</td>
<td></td>
</tr>
<tr>
<td>( R^2 )</td>
<td>.39</td>
<td>.47</td>
<td></td>
</tr>
<tr>
<td>( F )</td>
<td>62.62**</td>
<td>43.01**</td>
<td></td>
</tr>
<tr>
<td>( \Delta R^2 )</td>
<td>.38</td>
<td>.46</td>
<td></td>
</tr>
</tbody>
</table>

Note. \( N = 100, **p < .01 \).  

When stepwise regression analysis was employed to see significant predictors of neuroticism, results emerged in two steps. In the first step, self-neuroticism emerged as significant predictor of neuroticism \((t=7.91, p<.01)\) accounting for 39% of the variance. In the second step, self-neuroticism and lack of social support emerged as significant.
predictors of neuroticism ($t=3.83$, $p<.01$). These two variables accounted for 47% of the variance. Results show that model was overall significant ($F= 62.62$, $p>.01$).

To test whether different sub-scales of risk factors for postpartum depression, lack of social support, interpersonal relationship anxiety and neuroticism will likely to be the predictors of postpartum depression in women with postpartum depression, stepwise regression analysis was employed. Results are presented in table 5.

**Table 5: Stepwise Regression Analyses (forward entry) for Risk Factors for Postpartum Depression Scale as predictors of Postpartum Depression**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Postpartum Depression</th>
<th>Model 1</th>
<th>Model 2</th>
<th>CI 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.00</td>
<td>10.21**</td>
<td>(5.37-15.05)</td>
<td></td>
</tr>
<tr>
<td>Self-Neuroticism</td>
<td>14**</td>
<td>.13**</td>
<td>(.06-.20)</td>
<td></td>
</tr>
<tr>
<td>History of Abortion</td>
<td>.52*</td>
<td>.18</td>
<td>(.08-.96)</td>
<td></td>
</tr>
</tbody>
</table>

$R^2$    | 15.41** | 10.84** |

$\Delta R^2$ | .13 | .17 |

*Note. N = 100. *$p$.05. **$p$.01.

The results emerged in two steps showing that in the first step, self-neuroticism emerged as significant predictor of postpartum depression ($t= 3.93$, $p<.001$) accounting for fourteen percent of the variance. In the second step, history of abortion emerged as significant predictor of postpartum depression ($t= 2.36$, $p<.01$) accounting for 18 % of the variance. Regression analysis show that model is overall significant ($F= 15.41$, $p>.01$).

**IV. Discussion**

Present research explored relationship between risk-factors for postpartum depression, lack of social support, interpersonal relationship anxiety, neuroticism and postpartum depression in women. The findings of the study show the significant positive relationship between different sub-scale of risk-factors for postpartum depression, lack of social support, interpersonal relationship anxiety, neuroticism and postpartum depression in women.

There was significant positive relation between relations with husband and in-laws, lack of social support, self-neuroticism, history of abortion, difficulties during pregnancy, disturbed relations with husband, history of depression, interpersonal relationship anxiety, neuroticism and postpartum depression. The results of the present research are in agreement of the research conducted by Lee, Yip, leung & Chung (2004) who reported the association and relationship between conflicts with in-laws and postpartum depression in women. The findings from the present research can be explained in the context of Pakistani culture where woman is held responsible for the birth of a female child. In many families, the news of giving birth to a female baby is enough to change the attitudes of spouse and in-laws. They stop supporting woman who gives birth to a baby girl which ultimately make her relationships with in-laws more disturbed and produce symptoms of psychopathology i.e., depression during the postpartum period (Chandran, Tharyan, Muliyil & Abraham, 2002). These outcomes are
also supported in another research in which the researchers found attitude of indifferent from in-laws with pregnant women once they hear the news of baby girl (Leung, Arthur & Martison, 2005). The research argued that these practices are very much common in Asia, Africa and Turkey. Joanne (2006) suggested gender as a significant contributing factor in the onset of postpartum depression in women in families where attitudes of in-laws were getting changed on the birth of the girl baby.

The findings of the present study showed significant positive relationship between disturbed relations with husband and in-laws and interpersonal relationship anxiety symptoms in women with postpartum depression. These results are also supported by Beck (2001) who argues that disturbed marital relations play significant role in the onset of postpartum depression (Beck, 2001).

The findings of the study showed significant positive relationship between the second factor i.e., lack of social support with anxiety, neuroticism and postpartum depression. These results are also supported by O’Hara, Rehm and Campbell (1983) who reported less instrumental and emotional support in women with postpartum depression and had fewer members in their support group for emotional attachment and efficacy. Similarly, in another research, Chan et al., (2002) found that uncaring husband and detached in-laws were significant predictors for depressive symptoms in women with postpartum depression. It is evident from previous research McMahon, Barnett, Kowalenko & Tennant (2005) that interpersonal relationship anxiety symptoms lead to the development of depression after child birth. High levels of anxiety symptoms play a major role in progression and persistence of depression in women with postpartum depression. Risk-factors for postpartum depression also play role in high levels of hostility and anger which elevate the rate of postpartum depression in women (Hayworth, Little, Carter, Raptopoulos, Priest & Sandler, 1980).

Further, in the present research, results revealed that risk-factor for postpartum depression i.e., self-neuroticism emerged as significant predictor of interpersonal relationship anxiety. Results revealed that self-neuroticism and lack of social support emerged as significant predictors of neuroticism while self-neuroticism and history of abortion emerged as significant predictor of postpartum depression in women. Neuroticism is a trait which contributes in raising guilt feelings, hostility and anger which further elevate the symptoms of depression (Beck, 1996). Beck argues that neuroticism and anger in combine help to develop postpartum depression in women. Women whose thought are equipped with irrationality are more vulnerable to postpartum depression. These results are also supported by a research in which Robertson et al., (2004), found that neuroticism and low self-esteem play role in the onset of depression after delivery in women. Lack of social support is a major factor in creating self-neuroticism which further aid in postpartum depressive symptoms. It is evident from the previous researches that women who had little or no social support from their family, peers, and in-laws were show more high levels of depression. Moreover, women whose husband’s attitude was unaffectionate and ungenial were more vulnerable to depression after birth of baby (Forman, Videbech, Hedegaard, Salvig & Secher, 2000). Similarly, Seguin, Potvin, St Denis and Loiselle (1999) supported the findings that postpartum depression was seen in women who had disturbed relationships with their spouses, impaired sexuality and poor coping skills. Findings from the researches of Hussain, et al., (2006) and Irfan and Badar (2003) were consistent with the low social support as a highlighting factor in the
depression pathology. Lee et al. (2004) also argued that disturbed relations with in-laws were the strong predictor in the occurrence of postpartum depression. In a research, Johnstone et al., (2001), supported the findings by reporting that lack of social support was a troublesome factor in the development of depression in women. Poor social support, little family support and absent support group were the factors that directly related to the depression and leaves the women in isolation where she developed symptoms of depression if she did not get support from her family and partner after birth of a baby (Neter, Collins, Lobel & Dunkel-Schetter, 1995). Rahman and Creed (2007) also found postpartum depression as a result of lack of social support.

The study findings showed neuroticism and history of abortion as the strongest predictors of postpartum depression and most researches supported this finding by explaining that symptoms of neuroticism and unplanned or unwanted pregnancy were the key feature that leads to the development of depression after baby birth (Robertson et al., 2004).

V. Conclusion

The present research concludes that risk factors for postpartum depression i.e., self-neuroticism and lack of social support play significant role in development of postpartum depression. In addition, interpersonal relationship anxiety and neuroticism also have association with postpartum depression in women. Postpartum is a period when women need more care, support and attention from her family especially from spouse and in-laws and if she does not get support from her family members, she tends to develop symptoms of neuroticism, anxiety which would further develop depression in women.

The present study was a significant approach in exploring relationship among lack of social support, interpersonal relationship anxiety and neuroticism in women with postpartum depression. The findings of the study would help the professionals in understanding the role of social support, interpersonal relationship anxiety and neuroticism in women who suffered from postpartum depression. Findings from the present research suggest that professional i.e., psychologists/psychiatrists should help women to lessen or control anxiety symptoms and neuroticism first and then handle with postpartum depression as comorbid disorders (anxiety, neuroticism) hinder the direct dealing of psychopathology. Further, they can also give counseling to the spouse and other family members in in-laws of women to give support to the women in difficult time and help them not to develop psychopathology.

(a) First limitation of the research was to approach women who were already diagnosed with postpartum depression was very difficult procedure and this process required a lot of time. It is suggested that enough time should be spared to carry out these kinds of research projects.

(b) Women with postpartum depression were feeling hesitation to disclose any type of their personal information in the presence of their spouses and in-laws, so it is suggested that while dealing with women with depression, the assessment procedure should be done in separate room and not in the presence of any relative of women.
References


