What to Expect When You're Expecting the Best: The Roles of Optimism, Coping, and Self-Esteem in the Development of Postpartum Depression

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Abstract
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IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE
OF
MASTER OF SCIENCE IN CLINICAL PSYCHOLOGY
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APPROVED:
Sydney By, PhD
Abstract

Postpartum depression is a prevalent experience associated with negative long-term outcomes. Biological risk factors have been identified, but few researchers have looked at psychological variables as possible risk or protective factors for postpartum depression. This cross-sectional study examined the relationships among 40 new mothers’ optimism, self-esteem, coping efforts and postpartum depression as measured by the LOT-R (Scheier, Carver, & Bridges, 1994), Rosenberg’s SES (Rosenberg, 1965), the Brief COPE (Carver, 1997), and the EPDS (Cox, Holden & Sagovsky, 1987), respectively. New mothers’ self-esteem may be a possible protective factor as women with higher self-esteem reported less postpartum depressive symptoms in the present study. Coping efforts that include self-blame, behavioral disengagement, and venting however, may be risk factors as they were moderately correlated with increased risk for postpartum depression. Implications for treatment, prevention and further research were discussed.
What to Expect When You're Expecting the Best: The Roles of Optimism, Self-Esteem and Coping in the Development of Post-Partum Depression

Postpartum depression is an underresearched phenomenon that affects approximately 12% of postpartum women (Albright, 1993). Many past researchers have focused their investigations on the detrimental outcomes associated with postpartum depression. Such outcomes include a diminished attachment between mother and child, the development of behavioral and psychological problems in the child, impaired intellectual and cognitive development in the child, and in some cases, serious physical harm to mother or child when the depression is untreated (Chun-Chong & Vostanis, 2004; “Depression”, 2002; Kurstjens & Wolke, 2001; Pawlby, et al., 2001). Though the negative effects of postpartum depression have been well established in the literature, risk factors and protective factors have been less researched.

Researchers in the medical community have focused their research on thyroid functioning and hormonal drops in estrogen and progesterone experienced postpartum as potential risk factors for the development of depression, though no clear link has yet been demonstrated between hormonal changes and postpartum depression (Dennis, 2004). The rapid drop in estrogen and progesterone experienced postpartum has been associated with mood changes, which may account for the presence of “baby blues,” a cluster of milder depressive symptoms that afflict up to 80% of postpartum women (Henshaw, Foreman, & Cox, 2004; Voit, 2004). Though the baby blues typically subside after 7-10 days, the experience of the phenomenon has been identified as a risk factor for future development of postpartum depression (Henshaw, Foreman, & Cox, 2004). Previous depressive episodes, both postpartum and nonpostpartum, have also been identified as factors that
increase a woman’s risk for postpartum depression (DSM-IV-TR, American Psychiatric Association, 2000).

Risk factors have also been identified through research on psychosocial variables. Higher rates of postpartum depression have been associated with women living in poverty (Tomlinson, Swath, Cooper, & Molteno, 2004). Interpersonal factors such as poor social support and partner-relational problems have been identified as risk factors for postpartum depression (Dennis, 2003; Stuchberry, Matthey, & Barnett, 1998). Poor partner support has also been associated with poorer progress in treatment for postpartum depression (Misri, Kostaras, Fox, & Kostaras, 2000) whereas increased social support has been associated with more positive treatment outcomes (Dennis, 2003).

Few researchers have looked at psychological factors as potential protective factors for postpartum depression. Given that the postpartum period is a particularly stressful time in a woman’s life, her level of optimism, self-esteem and preferred coping style may affect her resiliency against developing postpartum depression. Healthy coping and high levels of optimism have been associated with greater psychological and physical adjustment for adults during times of stress (Mahler & Kulik, 2000; McIntosh, Stern, & Ferguson, 2004; Scheier & Carver, 1993). Healthy coping and higher levels of self-esteem have been shown to contribute to more adaptive psychological functioning in parents dealing with stressful life circumstances (Bright & Hayward, 1997; McIntosh, Stern, & Ferguson, 2004). Coping style appears to be related to the benefits associated with optimism and self-esteem. Dispositional optimism and self-esteem have been studied as predictors of postpartum depression (Fontaine & Jones, 1997). The relationships between coping styles, psychological factors, and postpartum depression
have not been researched. In order to better identify potential sources of resilience against developing postpartum depression, optimism, self-esteem and coping strategies were investigated in new mothers in the present study.

**Optimism**

Dispositional optimism is a stable personality characteristic that refers to an individual’s general belief that positive outcomes will occur (Scheier & Carver, 1993). The construct of optimism has been well researched in the domains of physical health and emotional well-being. Dispositional optimism has consistently been shown to be related to greater physical well-being (Brenes, Rapp, Rejeski, & Miller, 2001; Mahler & Kulik, 2000; Scheier & Carver, 1987, 1993). Bedi and Brown (2005) found an association between optimism and positive affect in a sample of 85 cardiac patients. A positive relationship was also observed between optimism and blunting, a defensive coping strategy in which an individual limits the attention and amount of time given to thoughts of threatening situations. Both optimism and blunting have been linked to positive well-being (Bedi & Brown, 2005).

The benefits of optimism have also been identified among individuals under continual stress. Optimism, along with social support and coping behaviors, was assessed with 166 individuals suffering from chronic fatigue (Jason, Witter, & Torres-Harding, 2003). Higher levels of optimism were associated with greater mental and physical functionality. The coping strategies of venting and behavioral disengagement were associated with poorer functioning (Jason, Witter, & Torres-Harding, 2003).

In research involving mothers, McIntosh, Stern, and Ferguson (2004) assessed the relationships between optimism, coping styles and psychological well-being among 112
mothers whose infants were receiving neonatal intensive care. The researchers used the Revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994) to assess optimism and the COPE (Carver, Scheier, & Weintraub, 1989) to assess coping. Optimism, coping, and psychological distress were measured in the women while their infants were receiving care but after the infants had been deemed stable by hospital staff. Psychological distress was measured again approximately one month after mothers returned home with their infants.

Greater optimism was related to lower psychological distress at both assessments (McIntosh, Stern, & Ferguson, 2004). Use of cognitive coping was also related to lower psychological distress. Greater psychological distress was associated with use of avoidant coping strategies. McIntosh, Stern, and Ferguson also found support for a mediation theory of coping. In addition to having a direct impact on psychological distress, optimism was observed as predicting the use of healthy coping strategies over avoidant coping strategies, which in turn decreased psychological distress. The multiple beneficial effects of optimism support the need to further investigate the relationship between optimism and coping style in postpartum women.

Carver and Gaines (1987) researched the variable of optimism as a protective factor against the development of postpartum depression in pregnant and subsequently postpartum women. Levels of optimism, pessimism and depressive mood in women were assessed several weeks before as well as several weeks after giving birth. Coping was not assessed. The researchers found a negative correlation between optimism and depressive symptoms during the postpartum period; correlations were strongest among women who endorsed no depression during the pregnancy. Although causation cannot be inferred
from correlation, Carver and Gaines postulated that women with higher levels of optimism during and after pregnancy are more protected from developing depressive symptoms after giving birth. The present study aims to build upon the results found by Carver and Gaines by adding in the variables of self-esteem and coping.

Self-Esteem

Self-esteem refers to the attitude an individual has towards his or herself and is often considered to be synonymous with self-worth (Cheng & Furnham, 2003). Higher levels of self-esteem have been associated with greater levels of perceived happiness and psychological well-being in non-clinical samples (Cheng & Furnham, 2003). Lower levels of self-esteem have been associated with depression in a sample of university students (Oliver & Paull, 1995).

Self-esteem has also been researched with a variety of samples of mothers. Nelson and Fazio (1995) found self-esteem to be positively associated with greater social support in a study of pregnant women. Self-esteem was also associated with less use of medication, suggesting that the women who had higher self-esteem experienced less emotional disturbance (Nelson & Fazio, 1995).

In a study involving mothers of developmentally disabled children, Bright and Hayward (1997) assessed the self-esteem, coping and general health of 19 mothers of young children enrolled in an early intervention program for children with learning difficulties. Self-esteem was measured using the Rosenberg Self-Esteem Inventory (Rosenberg, 1965). Coping was measured using the Ways of Coping Checklist (Folkman & Lazarus, 1985). General health was measured using the General Health Questionnaire...
(Goldberg, 1972). In addition to the self-report of the mothers, teachers in the program completed ratings of the mothers on perceived coping ability.

Higher levels of self-esteem were associated with more favorable teachers’ ratings (Bright & Hayward, 1997). Teachers rated mothers with higher self-esteem as more capable of dealing with the problems of their child, making better use of the intervention program and better able to handle general life problems. Higher levels of self-esteem were related to higher levels of general mental health.

Self-esteem and general mental health of the mothers were also related to coping (Bright & Hayward, 1997). Women with lower self-esteem and poor mental health self-reported higher scores on the maladaptive coping subscale of the Ways of Coping Checklist. Bright and Hayward did not report on the specific poor coping strategies of the women. The current study utilizes the Brief COPE, which assesses 14 types of coping and therefore allows for specific coping strategies employed by the women in the current sample to be reported. Awareness of types of coping associated with poorer outcomes is essential for preventative treatment planning. Although individual coping styles were not identified, the results of Bright and Hayward’s research support the supposition that poor coping and lower self-esteem are predictors of poor mental health and increased distress in the presence of stress. As the postpartum period is a stressful time in a mother’s life, these variables could have implications for postpartum women.

Hudson, Elek, and Campbell-Grossman (2000) investigated the relationships between levels of depression, loneliness, social support and self-esteem in a sample of 21 adolescent postpartum women. As part of the study, the women participated in an online support group that began when the women were 1 week postpartum. The purpose of the
online program was to provide the women with access to social support, general health information and professionals with expertise in postpartum and neonatal issues. The participants were encouraged to utilize the supportive program during the three months prior to assessment.

Loneliness and depression in new adolescent mothers were positively related with each other; social support and self-esteem were also positively related (Hudson, Elek, & Campbell-Grossman, 2000). Negative relationships were observed between depression and social support as well as between loneliness and self-esteem. Self-esteem was not found to be related to depression. Although self-esteem was not directly related to depression, it is worth noting the significant correlations between self-esteem and other variables associated with depression. These results suggest that self-esteem in young mothers could have an indirect relationship with depression.

Fontaine and Jones (1997) assessed the relationships between self-esteem, optimism and postpartum depression in a sample of 45 postpartum women. Self-esteem was measured using the Rosenberg Self-Esteem Scale and dispositional optimism was assessed using the Life Orientation Test (LOT; Scheier & Carver, 1985). Postpartum depression was assessed using the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987). Participants completed each measure three times: during the third trimester, 2 weeks postpartum, and 6 weeks postpartum.

Self-esteem and optimism were negatively correlated with depression (Fontaine & Jones, 1997). The relationship between self-esteem and depression was significant at all three administrations whereas the relationship between optimism and depression was not significant at the 6 week administration. Self-esteem scores were inversely related to
depression scores when optimism was controlled for. When self-esteem was controlled for, however, the relationship between optimism and depression dwindled. This finding suggests that self-esteem was a better predictor of lower levels of depression than optimism. The implications of this finding draw attention to the unique differences between the constructs of self-esteem and optimism. Fontaine and Jones propose that during the postpartum period, a mother’s level of self-worth is more important than her general expectancy in affecting her level of distress.

Fontaine and Jones (1997) cited the absence of the variable of coping as a major limitation to their study. The authors asserted that self-esteem might be related to the types of coping strategies new mothers employ. Fontaine and Jones suggested that future research incorporate coping into the assessment of the relationships of psychological factors in postpartum women. The present study aims to follow the authors’ suggestion.

**Coping**

Coping refers to the strategies one employs to deal with situations appraised as challenging or threatening to one’s abilities or resources (Lazarus & Folkman, 1987). Several measures of coping have been used throughout the general coping literature. Although most measures assess several types of coping, coping styles are compared using varying subscales depending upon the measure used: functional versus dysfunctional coping, problem-focused versus emotion-focused coping, active versus passive coping (Carver, 1997). In the current study, the Brief COPE (Carver, 1997) was used to assess coping. The Brief COPE yields 14 subscales that refer to specific types of coping strategies. The subscales assess active coping, planning, positive reframing, acceptance,
humor, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement and self-blame.

The implications of specific coping strategies on health have been well researched. Both emotion-focused and problem-focused coping were found to be related to positive outcomes in women dealing with infertility (McQueeny, Stanton, & Sigmon, 1996). Several studies have assessed the relationship between coping and distress in women receiving treatment for early stage breast cancer. Culver, Arena, Wimberly, Antoni, and Carver (2004) found an association between the coping mechanisms of acceptance, religion and positive reframing with lower levels of distress, whereas the strategies of denial, behavioral disengagement, self-distraction, venting and planning were associated with greater distress.

Stanton, Danoff-Burg, and Huggins (2002) studied the coping styles employed by 70 women during the first year following diagnosis of breast cancer and subsequent surgery. Coping was measured using the COPE (Carver, Scheier, & Weintraub, 1989). Psychological distress and hope were also measured. Participants were assessed after receiving their diagnosis but prior to surgery, again at 3 months and finally at 12 months post surgery. Fear of cancer recurrence was measured during the latter two assessment periods.

Active coping was associated with better psychological adjustment during the year and was the most commonly endorsed coping strategy of the participants (Stanton, Danoff-Burg, & Huggins, 2002). Avoidant coping was associated with lower distress at 3 months but predicted more fear of recurrence at 12 months. This finding suggests that avoidant coping may be beneficial for overall distress when used in the short-term but
appears to have detrimental affects on long-term adjustment (Stanton, Danoff-Burg, & Huggins, 2002).

Interactions between coping styles and hope were also observed. Women who were low in hope benefited from coping through religion. High levels of hope were associated with the use of positive reinterpretation and seeking social support (Stanton, Danoff-Burg, & Huggins, 2002). These results suggest that an individual's expectancies for the future may impact the coping mechanisms the individual employs.

The relationships between coping, optimism, self-esteem, and depression have not been researched among postpartum women. Given that the varying levels of the constructs of optimism, self-esteem and coping have been shown to be associated with general distress, overall health, and psychological well-being among individuals dealing with stress, there is strong support that these constructs may be factors in the resiliency of postpartum women. Studying the relationships of optimism, self-esteem, coping and postpartum depression could add support for the identification of psychological risk factors and protective factors for postpartum depression, which would ultimately impact preventative treatments.

The aim of the current study is to answer the following questions: What are the coping strategies utilized by postpartum women? This question remains exploratory due to the few studies on coping in postpartum women. What are the relationships between optimism, self-efficacy, coping and postpartum depression? Given the established relationships between optimism, self-esteem and depression in the literature, optimism and self-esteem are hypothesized to be positively related to each other and negatively related to postpartum depression.
Methods

Sample

A total of 40 postpartum women from the Portland, Oregon metropolitan area participated in this study. The study had Institutional Review Board (IRB) approval from Pacific University's human subjects committee. Potential participants were recruited from postpartum support groups in Portland, Oregon. Two support groups were part of Providence Hospital's New Mom's Group, a weekly group providing information and support for postpartum women. Participants were also recruited from the Portland Baby Blues Connection, a support group specializing in postpartum depression services. In addition, mothers receiving services at Wildwood Psychiatric Resource Center were invited to participate. Participants were recruited by the primary researcher, a group facilitator, or staff member. Participants were included if they were above the age of 18, between 6 weeks and 6 months postpartum with their first child and able to understand the measures. Of the 79 postpartum women who were eligible for participation, 40 women completed the measures (51.9% participation rate).

The women ranged in age from 23 to 42 years with a mean age of 32 years. Thirty-seven women identified themselves as Caucasian, 1 as Japanese, 1 as Korean and 1 as multi-ethnic. Twenty-four women reported being diagnosed with depression prior to pregnancy; 35 reported diagnosis of depression during pregnancy and 29 reported diagnosis of depression during the postpartum period. Complete demographics are presented in Table 1.
Table 1

Demographics Characteristics of Sample (N=40)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>M</th>
<th>SD</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>37</td>
<td></td>
<td>92.5</td>
<td></td>
</tr>
<tr>
<td>Japanese</td>
<td>1</td>
<td></td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Korean</td>
<td>1</td>
<td></td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Mixed Ethnicity</td>
<td>1</td>
<td></td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>31.63</td>
<td>1.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>10</td>
<td></td>
<td>25.0</td>
<td></td>
</tr>
<tr>
<td>30-39</td>
<td>28</td>
<td></td>
<td>70.0</td>
<td></td>
</tr>
<tr>
<td>≥ 40</td>
<td>2</td>
<td></td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>6</td>
<td></td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>College graduate</td>
<td>18</td>
<td></td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td>Some post graduate work</td>
<td>3</td>
<td></td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Master’s degree or higher</td>
<td>13</td>
<td></td>
<td>32.5</td>
<td></td>
</tr>
</tbody>
</table>

Measures

Demographics Questionnaire – The demographics section of the survey includes basic questions such as date of birth, race/ethnicity, date of delivery, and marital status. Also included are questions about education, employment, and current and past mental health diagnoses. The questions are designed to obtain general demographic information.

Optimism – The Life Orientation Test, Revised (LOT-R; Scheier, Carver, & Bridges, 1994) is a ten-item questionnaire designed to measure an individual’s general level of optimism and pessimism. Participants reply to each statement using a 5-point Likert-scale ranging from “I Agree a Lot” (0) to “I Disagree a Lot” (3). Among the ten items are four filler items that are not analyzed. From the six remaining items, scores can be obtained for optimism, pessimism and total optimism. The reported Cronbach’s alpha for the LOT-R total optimism score was .78 with test-retest reliability of .79 across 28
months. In the current sample, the Cronbach’s alpha for the total optimism score was .90. The LOT-R has convergent and discriminant validity as it was correlated with measures of other related constructs including self-esteem, self-mastery, trait anxiety and neuroticism.

**Self-Esteem** – The Self-Esteem Scale (SES; Rosenberg, 1965) is a ten-item questionnaire designed to measure an individual’s overall level of self-esteem. Participants respond to each statement using a 4-point Likert-scale ranging from “Strongly Agree” (0) to “Strongly Disagree” (3). The reported Cronbach’s alpha for the SES was .77-.88 with test-retest reliability of .82-.88. In the current sample, the Cronbach’s alpha was .93. The SES has convergent validity as demonstrated by correlations with measures of self-efficacy, locus of control and emotional stability. The SES has also been validated for use with a wide range of samples.

**Coping** – The Brief COPE (Carver, 1997) is a 28-item abbreviated version of the COPE (Carver, Scheier, & Weintraub, 1989). The Brief COPE was designed to identify the different ways in which an individual copes with stressors. For this study, the directions on the Brief COPE were tailored so that participants will endorse items used to cope with the stress of recently giving birth. Participants respond to each item using a 4-point Likert-scale ranging from “I haven’t been doing this at all” (0) to “I’ve been doing this a lot” (3). The 28 items can then be broken down into 14 subscales of separate coping tendencies (e.g., venting, denial, substance use) by summing the scale items. Eleven subscales obtained alpha reliabilities above .60. The subscales of venting, denial and acceptance obtained alpha reliabilities above .50. Cronbach’s alpha coefficients for the scales in the current sample are presented in Table 2. The Brief COPE was significantly
correlated with the original COPE, which has been shown to be a prospective predictor of stress in individuals with physiological afflictions (Carver, 1997).

Table 2

*Brief COPE Cronbach's Alpha Coefficients (N=40)*

<table>
<thead>
<tr>
<th>Scale</th>
<th>α</th>
<th>Scale</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Coping</td>
<td>.72</td>
<td>Planning</td>
<td>.79</td>
</tr>
<tr>
<td>Positive Reframing</td>
<td>.40</td>
<td>Acceptance</td>
<td>.61</td>
</tr>
<tr>
<td>Humor</td>
<td>.75</td>
<td>Religion</td>
<td>.88</td>
</tr>
<tr>
<td>Using Emotional Support</td>
<td>.78</td>
<td>Using Instrumental Support</td>
<td>.75</td>
</tr>
<tr>
<td>Self-Distraction</td>
<td>.18</td>
<td>Denial</td>
<td>.78</td>
</tr>
<tr>
<td>Venting</td>
<td>.51</td>
<td>Substance Use</td>
<td>.64</td>
</tr>
<tr>
<td>Behavioral Disengagement</td>
<td>.97</td>
<td>Self-Blame</td>
<td>.84</td>
</tr>
</tbody>
</table>

*Depression* – The Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden & Sagovsky, 1987) is a ten-item questionnaire designed to measure a woman's level of depression during the postpartum period. Participants respond to each question using a 4-point Likert-scale. Reported Cronbach's alphas of .79 for 2-3 days postpartum and .82 for 4-6 weeks postpartum suggest strong internal consistency. Test-retest reliability for the 2-3 day postpartum administration and the 4-6 week administration was .59. In the current sample, the Cronbach's alpha was .92. The EPDS has been shown to have predictive validity in identifying women with postpartum depression (Teissédre, Chabrol, 2004). Copies of the EPDS, LOT-R, Rosenberg SES, and Brief COPE are presented in Appendix A.

*Procedures*

Survey packets were administered at the site of the group meetings or at Wildwood Psychiatric Resource Center. If the primary researcher was not present during administration, group facilitators and staff members were given a handout with a script of
points to cover before administering the packets. A copy of the script can be found in Appendix B. Group facilitators provided the researcher with 30 minutes to introduce the study, explain confidentiality and answer any questions. Extra time was allotted for survey completion. Women who were unable to finish the surveys in the provided time or chose to take the surveys home were encouraged to finish the packet at a convenient time and return the completed packets to their group leader. Group leaders were provided with self-addressed envelopes to return the surveys to the researcher. Participants recruited from Wildwood Psychiatric Resource Center were provided with packets and self-addressed envelopes to return to the researcher.

**Analyses**

Analyses were run using 12.0 version of SPSS. Pearson correlations were used to assess the relationships between optimism, self-esteem, method of coping, and depression. Independent samples $t$-tests were run to compare the means of the current sample to the norms of each standardized measure. Simultaneous regression was used to test the predictive ability of optimism and self-esteem on depression. A critical value of .05 was used for each analysis.
Results

Table 3 presents the descriptive statistics for the study variables. Suggested clinical cut-off scores for the EPDS have ranged from 9-13 (Teissèdre & Chabrol, 2004).

In the current sample, 20 participants (50%) obtained scores of 9 or higher and 11 participants (27.5%) obtained scores of 13 or higher. Nine (23%) participants obtained scores below 9.

Table 3

Descriptive Statistics (N=40)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>19.20</td>
<td>6.00</td>
</tr>
<tr>
<td>Optimism</td>
<td>16.68</td>
<td>6.05</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>21.83</td>
<td>7.13</td>
</tr>
<tr>
<td>Active Coping</td>
<td>3.93</td>
<td>1.87</td>
</tr>
<tr>
<td>Planning</td>
<td>3.80</td>
<td>1.90</td>
</tr>
<tr>
<td>Positive Reframing</td>
<td>3.48</td>
<td>1.54</td>
</tr>
<tr>
<td>Acceptance</td>
<td>4.30</td>
<td>1.34</td>
</tr>
<tr>
<td>Humor</td>
<td>3.58</td>
<td>1.81</td>
</tr>
<tr>
<td>Religion</td>
<td>1.75</td>
<td>2.03</td>
</tr>
<tr>
<td>Using Emotional Support</td>
<td>4.50</td>
<td>1.66</td>
</tr>
<tr>
<td>Using Instrumental Support</td>
<td>4.43</td>
<td>1.50</td>
</tr>
<tr>
<td>Self-Distraction</td>
<td>2.25</td>
<td>1.39</td>
</tr>
<tr>
<td>Denial</td>
<td>.45</td>
<td>1.08</td>
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<tr>
<td>Venting</td>
<td>2.80</td>
<td>1.47</td>
</tr>
<tr>
<td>Substance Use</td>
<td>.25</td>
<td>.84</td>
</tr>
<tr>
<td>Behavioral Disengagement</td>
<td>.63</td>
<td>1.43</td>
</tr>
<tr>
<td>Self-Blame</td>
<td>2.15</td>
<td>1.76</td>
</tr>
</tbody>
</table>

T-tests were used to compare the current sample’s levels of optimism and self-esteem to other samples. One sample t-tests were used to compare the current sample to the sample of college women and sample of female cardiac bypass patients used by Scheier, Carver, and Bridges (1994) during the construction of the LOT-R. Although results showed the current sample of new moms had statistically higher levels of total
optimism than Scheier, Carver, and Bridges's sample of college women \((t=2.36, p=.023)\), the mean of the current sample was only 2.3 points higher than the college sample, suggesting little clinical relevance. Mean scores for both samples were within one standard deviation of another. There was no significant difference between the scores of the current sample and Scheier, Carver, and Bridges's sample of female cardiac bypass patients \((t=1.84, p=.074)\).

A one sample \(t\)-test was used to compare the Rosenberg SES scores of the current sample and the sample of pregnant women used by Nelson and Fazio (1995). Results showed no significant difference between the scores of each sample \((t=-.69, p=.50)\).

Frequency statistics were used to answer the research question regarding what coping styles postpartum women utilize. Scores of 4 and above on the Brief COPE scales indicate that a respondent endorsed using a particular coping style a "medium amount" to "a lot." Table 4 presents the number of women in the current sample who obtained a score of 4 or above on each coping style. Using instrumental support, using emotional support, acceptance, planning and active coping were the most frequently endorsed coping mechanisms.
Table 4

*Frequency of New Moms Who Reported Using Strategy Moderate Amount (N=40)*

<table>
<thead>
<tr>
<th>Style</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Coping</td>
<td>25</td>
</tr>
<tr>
<td>Planning</td>
<td>25</td>
</tr>
<tr>
<td>Positive Reframing</td>
<td>16</td>
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<tr>
<td>Acceptance</td>
<td>28</td>
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<tr>
<td>Humor</td>
<td>12</td>
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<tr>
<td>Religion</td>
<td>10</td>
</tr>
<tr>
<td>Using Emotional Support</td>
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<tr>
<td>Using Instrumental Support</td>
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</tr>
<tr>
<td>Self-Distraction</td>
<td>8</td>
</tr>
<tr>
<td>Denial</td>
<td>1</td>
</tr>
<tr>
<td>Venting</td>
<td>11</td>
</tr>
<tr>
<td>Substance Use</td>
<td>1</td>
</tr>
<tr>
<td>Behavioral Disengagement</td>
<td>3</td>
</tr>
<tr>
<td>Self-Blame</td>
<td>10</td>
</tr>
</tbody>
</table>

Pearson correlations were conducted to evaluate the relationships between optimism, self-esteem, coping strategies, and postpartum depression. The correlation analyses presented in Table 5 support the hypothesis that optimism and self-esteem are positively related to each other and are negatively related to postpartum depression.
## Table 5

**Results of Pearson Correlations Among Depression, Optimism, Self-Esteem and Coping (N=40)**

<table>
<thead>
<tr>
<th></th>
<th>Dep</th>
<th>Opt</th>
<th>Est</th>
<th>Act</th>
<th>Pla</th>
<th>Pos</th>
<th>Acc</th>
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<th>Dis</th>
<th>Den</th>
<th>Ven</th>
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<tr>
<td><strong>Dep</strong></td>
<td>--</td>
<td>-.38*</td>
<td>-.50*</td>
<td>-.04</td>
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<td>-.08</td>
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<td><strong>Opt</strong></td>
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<tr>
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*p<.05, **p<.01
Optimism and self-esteem were positively correlated ($r=.79, p<.001$), suggesting that postpartum women with higher levels of optimism also tend to have higher levels of self-esteem. There was a negative correlation between depression and optimism ($r=-.38, p=.016$), suggesting that postpartum women with higher levels of optimism tend to endorse fewer symptoms of postpartum depression. A negative correlation was also evidenced between depression and self-esteem ($r=-.50, p=.001$), suggesting that postpartum women with higher levels of self-esteem tend to endorse fewer symptoms of postpartum depression.

Based on the difference in strength of the correlations of optimism and self-esteem with postpartum depression, a standard simultaneous regression was run to determine which variable was the best predictor of postpartum depression. Regression results indicated that the overall model significantly predicted depression scores and accounted for 25% of the variance in depression scores [$F(2,37)=6.03, p=.005$, $R^2=.25$]. The results presented in Table 6 showed that self-esteem significantly contributed to the model while optimism did not.

Table 6

| Summary of Simultaneous Regression Analysis for Variables Predicting Depression  |
|-----------------------------|-------------|-----------|-----|-----|
| ($N=40$)                    |             |           |     |     |
| **Variable**                | **B**       | **β**     | **t**| **p**|
| Optimism                    | .00         | .03       | .14 | .89 |
| Self-Esteem                 | -.44        | -.52      | -2.25 | .03 |
Optimism, self-esteem and depression were also related to several coping styles. Optimism was negatively correlated with using religion as a coping mechanism ($r = -0.38, p = 0.016$). The negative relationship between self-esteem and religion approached significance ($r = -0.30, p = 0.057$). These results suggest that postpartum women with high levels of optimism and self-esteem are not likely to engage in using religious coping strategies.

The coping style of self-blame was negatively correlated with optimism ($r = -0.41, p = 0.009$) and self-esteem ($r = -0.48, p = 0.002$). This result suggests that postpartum women who endorse higher levels of optimism and self-esteem tend to engage less in self-blaming styles of coping than postpartum women who endorse lower levels of optimism and self-esteem. Self-blame was positively related to depression ($r = 0.710, p < 0.001$), suggesting that women who endorse symptoms of postpartum depression are likely to be engaging in self-blaming coping styles. Depression was also positively correlated with venting ($r = 0.35, p = 0.025$) and behavioral disengagement ($r = 0.39, p = 0.014$), suggesting that postpartum women who endorse symptoms of depression tend to use venting and behavioral disengagement as coping mechanisms.
Discussion

The purpose of this study was to assess the coping strategies used by postpartum women and investigate the relationships between optimism, self-esteem, coping and postpartum depression. Results showed that the current sample was similar in levels of optimism to a sample of female cardiac bypass patients. The current sample was similar in levels of self-esteem to a sample of pregnant women. Eleven participants (27.5%) met conservative clinical cutoff scores for postpartum depression (Teissèdre & Chabrol, 2004). Results showed that over 63% of the participants endorsed engaging in using instrumental support, emotional support, acceptance, active coping and planning during the weeks following giving birth. Less than 3% endorsed using substances or denial to cope with stress during the postpartum period. Twenty-five percent endorsed engaging in self-blame.

While healthy coping strategies were not found to be related to postpartum depression, the coping strategies of venting, behavioral disengagement and self-blame were associated with higher levels of depression in new mothers. These results reflect those of Culver, Arena, Wimberly, Antoni, and Carver (2004) who found a relationship between venting and behavioral disengagement with greater distress in women receiving treatment for breast cancer. Venting and behavioral disengagement were also found to be associated with poorer functioning in Jason, Witter, and Torres-Harding’s (2003) sample of adults with chronic fatigue.

In the current study, self-blame was found to be negatively related to optimism and self-esteem, suggesting that increasing a woman’s level of optimism and self-esteem could help to decrease her use of self-blame; conversely, decreased self-blame could be
associated with improved outlook on life and higher levels of self-worth. The strong relationships between self-blame and depression as well as self-blame and optimism and self-efficacy support a suggestion for future research to focus on the possible mediating role of coping style.

Healthy coping styles have been related to decreased psychological distress in women (Hudson, Elek, & Campbell-Grossman, 2000; Stanton, Danoff-Burg, & Huggins, 2002). Although the negative relationship observed in the current study between active coping and behavioral disengagement suggests a possible indirect relationship between active coping and depression, no coping style was directly related to decreased depression. Social support has been identified as a protective factor for women experiencing postpartum depression (Dennis, 2003; Stuchberry, Matthey, & Barnett, 1998). Over 63% of the current sample endorsed engaging in socially supportive coping strategies, yet social support appeared to have no relationship with depression.

The effectiveness of social support as a protective factor may be impacted by the content of the support. In the current study, using emotional support was related to venting, which in turn was related to higher levels of depression. It appears as if the social support was focused more on sharing problems than on finding solutions. The results of this study suggest that problem sharing may not be an effective use of social support.

Optimism and self-esteem were negatively related to postpartum depression, supporting previous findings that optimism and self-esteem are associated with better psychological functioning (Bright & Hayward, 1997; Carver & Gaines, 1987; Cheng & Furnham, 2003; Fontaine & Jones, 1997; McIntosh, Stern & Ferguson, 2004; Oliver &
The direct relationship between self-esteem and depression in new mothers differs from the insignificant relationship seen between self-esteem and depression in postpartum adolescent women (Hudson, Elek, & Campbell-Grossman, 2000). In adolescent women, loneliness and social support appear to have a stronger relationship with depression experienced postpartum. As adolescence has been described as a time in which one's sense of self is still developing (Rosenberg, 1989), perhaps social support is more developmentally important for adolescent mothers whereas self-worth may be more developmentally important for adult mothers.

In the current study, only self-esteem was found to be a significant predictor of postpartum depression. This finding adds support for Fontaine and Jones's (1997) proposal that a postpartum woman's level of self-worth may be more important than her general expectancies for the future. During the postpartum period, much of a mother's attention is focused on her child. Her assessment of her abilities as a mother may significantly affect her self-worth. As her attention is constantly focused on the present, her positive expectations for the future may be less effective in promoting overall well-being.

Implications

The results of the current study show that self-esteem may be a protective factor against postpartum depression. Although optimism was also related to lower levels of depression, the relationship between optimism and depression was accounted for by the association between self-esteem and optimism. Although causation cannot be inferred from a cross-sectional study, the relationship between self-esteem and depression suggests that increasing a mother's self-esteem may help reduce her risk of postpartum
depression. During the postpartum period, an intervention aimed at increasing a mother’s self-efficacy in relation to her parenting ability may prove more beneficial than attempting to increase her general positive world view. The negative relationship between self-esteem and self-blame suggests that increasing a woman’s self-worth may also decrease her use of maladaptive coping strategies.

A positive relationship between active coping and social support with greater psychological and physical well-being has often been shown in studies involving women under stress (Hudson, Elek, & Campbell-Grossman, 2000; Stanton, Danoff-Burg, & Huggins, 2002). Yet in the current study, positive coping styles were not related to decreased symptomology of postpartum depression. This finding has implications for the way postpartum depression is treated. It appears as if increasing a woman’s use of healthy coping behaviors will not be enough to decrease her depression. Based on the current findings as well as those of Fontaine and Jones (1997), interventions should instead be focused on decreasing her use of maladaptive coping behaviors and increasing her level of self-esteem.

Limitations

The generalizability of this study is restricted by its limitations. The current study utilized a relatively small sample of 40 postpartum women. Ninety-three percent of the participants identified as White. A larger and more diverse sample may have yielded more generalizable results. Using a larger sample would also provide the researcher with the ability to test the mediation theory of coping found by McIntosh, Stern, and Ferguson (2004) among women whose infants were in intensive care. The researchers found that
optimism predicted the use of healthy coping strategies, which predicted decreased psychological distress (McIntosh, Stern, & Ferguson, 2004).

Another weakness of the present study was the correlational design. Given that causation cannot be inferred from causality, the predictive abilities of self-esteem, optimism, and coping should be considered with caution. Although self-esteem and optimism are considered to be relatively stable traits of personality, a longitudinal study would have provided increased predictive validity (Scheier & Carver, 1993).

Future Directions

The current study is one of few investigations involving the protective ability of psychological factors against postpartum depression. It would be beneficial to further investigate the relationships between postpartum depression and intrapersonal variables with a larger and more diverse sample. A longitudinal study tracking the variables at various stages throughout pregnancy and postpartum would add information about the stability of optimism, self-esteem, and coping.

In addition, given the insignificant predictive ability of optimism in the current study, future studies should focus on the impact of self-esteem on postpartum depression. Results of the current study would suggest that interventions aimed at increasing a mother’s self-esteem might help to reduce her level of depression. Though there have been studies assessing the effectiveness of increasing social support as in intervention (Dennis, 2003), self-esteem has not been a focus of postpartum treatment in the literature.

It may also be helpful to further investigate biological interventions, as it seems psychological factors have less of an impact as protective factors against postpartum depression than was hypothesized. Although anti-depressant use has been established as a
successful treatment for postpartum depression, many women are ambivalent about their controversial use (Boath, Bradley, & Henshaw, 2004). Alternative biological approaches are therefore worth further study.

Conclusion

The postpartum period is a time of great stress, influenced by biological, interpersonal, and psychological factors. Although prevention may be the ideal outcome of any research involving the phenomenon, awareness is also important. Eighty percent of postpartum women experience depressive symptoms during the first 10 days after giving birth (Henshaw, Foreman, & Cox, 2004). Twenty percent of postpartum women go on to develop postpartum depression (Albright, 1993). Given these astounding prevalence rates, it is important that this experience is not ignored and that women with postpartum depression are not shamed. The results of the current study suggest that self-esteem is an important protective factor against postpartum depression. It is therefore imperative that both postpartum women and society recognize that the experience of postpartum depression is common, almost expected, and does not mean that a women does not love her child.
References


Appendix A

Life Orientation Test - Revised (Scheier, Carver, & Bridges, 1994)

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

A = I agree a lot
B = I agree a little
C = I neither agree nor disagree
D = I DISagree a little
E = I DISagree a lot

1. In uncertain times, I usually expect the best. ___

2. It's easy for me to relax. ___

3. If something can go wrong for me, it will. ___

4. I'm always optimistic about my future. ___

5. I enjoy my friends a lot. ___

6. It's important for me to keep busy. ___

7. I hardly ever expect things to go my way. ___

8. I don't get upset too easily. ___

9. I rarely count on good things happening to me. ___

10. Overall, I expect more good things to happen to me than bad. ___
Rosenberg Self-Esteem Scale (Rosenberg, 1965)

Below is a list of statements dealing with your general feelings about yourself. If you **strongly agree**, circle SA. If you **agree**, with the statement, circle A. If you **disagree**, circle D. If you **strongly disagree**, circle SD.

<table>
<thead>
<tr>
<th></th>
<th>STRONGLY AGREE</th>
<th>AGREE</th>
<th>DISAGREE</th>
<th>STRONGLY DISAGREE</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel that I'm a person of worth, at least on an equal plane with others.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
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<tr>
<td>2.</td>
<td>I feel that I have a number of good qualities.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
</tr>
<tr>
<td>3.</td>
<td>All in all, I am inclined to feel that I am a failure.**</td>
<td>SA</td>
<td>A</td>
<td>D</td>
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<tr>
<td>4.</td>
<td>I am able to do things as well as most other people.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
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<tr>
<td>5.</td>
<td>I feel I do not have much to be proud of.**</td>
<td>SA</td>
<td>A</td>
<td>D</td>
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<tr>
<td>6.</td>
<td>I take a positive attitude toward myself.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
</tr>
<tr>
<td>7.</td>
<td>On the whole, I am satisfied with myself.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
</tr>
<tr>
<td>8.</td>
<td>I wish I could have more respect for myself.**</td>
<td>SA</td>
<td>A</td>
<td>D</td>
</tr>
<tr>
<td>9.</td>
<td>I certainly feel useless at times.**</td>
<td>SA</td>
<td>A</td>
<td>D</td>
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<tr>
<td>10.</td>
<td>At times I think I am no good at all.**</td>
<td>SA</td>
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<td>D</td>
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Brief COPE (Carver, 1997)

There are many ways to try to deal with stress. These items deal with ways in which you may have been coping with the stress in your life since giving birth. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says—how much or how frequently. Please don't answer on the basis of what others you know do or on whether it seems to be working or not—just whether or not you're doing it. Use the following response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real."
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.
Edinburgh Postnatal Depression Scale (Cox, Holden & Sagovsky, 1987)

As you have recently had a baby, we would like to know how you are feeling. Please **underline** the answer which comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - As much as I always could
   - Not quite so much now
   - Definitely not so much now
   - Not at all

2. I have looked forward with enjoyment to things
   - As much as I ever did
   - Rather less than I used to
   - Definitely less than I used to
   - Hardly at all

*3. I have blamed myself unnecessarily when things went wrong*
   - Yes, most of the time
   - Yes, some of the time
   - Not very often
   - No, never

4. I have been anxious or worried for no good reason
   - No, not at all
   - Hardly ever
   - Yes, sometimes
   - Yes, very often

*5. I have felt scared or panicky for no very good reason*
   - Yes, quite a lot
   - Yes, sometimes
   - No, not much
   - No, not at all

*6. Things have been getting on top of me*
   - Yes, most of the time I haven’t been able to cope at all
   - Yes, sometimes I haven’t been coping as well as usual
   - No, most of the time I have coped quite well
   - No, have been coping as well as ever

*7. I have been so unhappy that I have had difficulty sleeping*
   - Yes, most of the time
   - Yes, sometimes
   - Not very often
   - No, not at all

*8. I have felt sad or miserable*
   - Yes, most of the time
   - Yes, quite often
   - Not very often
   - No, not at all

*9. I have been so unhappy that I have been crying*
   - Yes, most of the time
   - Yes, quite often
   - Only occasionally
   - No, never

*10. The thought of harming myself has occurred to me*
   - Yes, quite often
   - Sometimes
   - Hardly ever
   - Never
Appendix B

Points to Cover Before Handing out Packets:

- The researchers are studying attributes of women that could be potential risk or protective factors for the development of postpartum depression.

- You have been selected because the researchers are interested in comparing women who develop postpartum depression with women who do not.

- Please read the consent form carefully and fill out the requested information. By signing the consent form you agree to participate in the study.

- **You are free to end your participation at any time.** There are no consequences associated with ending your participation.

- Please answer every question.

- Please take your time and answer as honestly as you can. If you cannot finish today, please return the completed packet at the next meeting.

- If you have any questions please use the contact information sheet to contact the researchers.