POSTPARTUM DEPRESSION AND SOCIAL SUPPORT: A COMPARATIVE STUDY IN HONG KONG

Priscilla, Yuet-kiu CHUNG and Xiao Dong YUE

Yang Memorial Methodist Social Service and City University of Hong Kong, P. R. C.

This study compares 11 postpartum depressed women with 25 postpartum non-depressed women in Hong Kong on depression and social support measures. Results indicate that the depressed women score consistently higher on Edinburgh Postnatal Depression Scale (EPDS) and Self-Rating Depression Scale (SDS) and consistently lower on the Medical Outcome Study (MOS) Social Support Survey than do the non-depressed women. Social support is negatively correlated with postpartum depression. The depressed and non-depressed groups differ significantly on all four kinds of social support, including tangible support (TS), affectionate support (AP), positive social interaction support (PSI), emotional or informational support (EIS) and in the number of confidants. The practical implications of these findings are discussed in relation to an inhibitory effect of social support on postpartum depression identified in this study.

Key words: postpartum depression, social support

Definitions and Studies of Postpartum Depression

Postpartum depression is not recognized as an official diagnosis by either the American Psychiatric Association or the World Health Organization (1992). Nonetheless, a tradition exists in both research and clinical practices to consider depression that occurs after childbirth a distinct diagnosis. Specifically, postpartum depression is qualitatively different from non-postpartum depression in at least three ways: depression is more common at postpartum period than at other times (Whiffen, 1992); postpartum depression is related etiologically to childbirth and is not present in the development of non-postpartum depression (e.g., O'Hara, Schlechte, Lewis, & Varner, 1991; O’Hara, Zekoski, Phillips, & Wright, 1990); postpartum depression is milder than the depression and is mostly shown in a higher-than-usual level of anxiety and irritability (Pitt, 1968).

Emotional disturbances in postpartum period are commonly divided into three groups based on their severity: postpartum blues, postpartum psychosis, and postpartum depression. Specifically, postpartum blues refers to a relatively mild, transient, and common emotional disturbance that occurs most often in the first week of postpartum and is characterized by such symptoms as crying, confusion, mood liability, anxiety, and depressed mood (Kennerley & Gath, 1989; O’Hara, Schlechte, Lewis, & Wright, 1991). Postpartum psychosis appears at the other end of the
severity continuum, referring to severe and relatively rare psychiatric disorder, often affective in nature. Characteristic symptoms of postpartum psychosis include delusions, hallucinations, and gross impairment in functioning. Postpartum depression, however, refers to a non-psychotic depressive episode that begins in or extend into the postpartum period (Cox, Holden & Sagarovsky, 1987; Cox, Murray, & Chapman, 1993; O’Hara, 1994). Diagnosis of postpartum depression usually requires that a woman be experiencing dysphoric mood along with several other symptoms such as sleep, appetite, or psychomotor disturbance; fatigue; excessive guilt; and suicidal thoughts (Spitzer, Endicott, & Robins, 1978).

Though a large number of etiologic accounts of postpartum blues and postpartum psychosis have been shown to be hormonally or biologically determined, etiologic theories of non-psychotic postpartum depression tend to emphasize the psycho-social stress factors. For instance, postpartum depression has been reported to be provoked by low social support, life stresses, and marital conflicts. There is also a growing body of evidence to suggest that mothers reporting moderate to high levels of depressive symptoms interact less with their babies, and are less positive and responsive toward them as well (e.g., Field, Healy, & LeBlanc, 1989; Fleming, Ruble, Flett, & Shaul, 1988). So postpartum depression leads to many undesirable consequences not only to mothers but also to their families.

Postpartum Depression and Social Support

Social support has been shown to be crucial in controlling postpartum depression during the initial days of childbirth. Social support has been defined as the degree to which a person’s social needs are satisfied through interaction with others (Kaplan, Cassel, & Gore, 1977), as the presence of an intimate other in whom one could confide (Brown & Harris, 1978), and as an interpersonal transaction involving concern, aid and information between emotional support, appraisal support (affirmation and feedback), informational support and instrumental support (House, 1981). Veiel (1985) argued that social support was not a single commodity or unitary concept, instead it was a multidimensional concept involving either instrumental or psychological support. Psychological support is aimed at changing intrapsychic dimensions such as moods, attitudes or cognitive processes, and could be categorized as providing either emotional or informational aspects of support. Barrera (1986) defined social support in terms of social embeddedness, perceived social support, and enacted social support. Social embeddedness emphasizes connections and ties a person has to the social environment and is opposite to the notion of social isolation or alienation. Social embeddedness is commonly measured by the presence of social ties such as marital status, participation in community organization, presence of older siblings and contact with friends. Although these indicators are not perceived as direct measures of social support, they can be used with the rationale that available social ties could serve as social support resources during crisis times (Sandler, 1980).

Perceived social support emphasizes the cognitive appraisal or perception of the availability and adequacy of support, or satisfaction with support. Measures of
perceived social support typically incorporate two dimensions, perceived availability and adequacy of supportive ties (Procidano & Heller, 1983). These measures differ from measures of social embeddedness in that they do not quantify the number of supporters or the amount of social contacts. They attempt to capture individuals’ confidence that adequate support would be available if it was needed or to characterize an environment as helpful or cohesive.

Enacted social support refers to the actions that others perform when they render assistance to a person, i.e. enacted support involves what individuals actually do to provide support. Tardy (1985) referred to behavioral descriptions of support as “enacted” support to distinguish it from “available” support. Measures of enacted social support complement other measures by assessing what individuals actually do when they provide support.

Lack of social support is among the best predictors of postpartum depression. Social support may reduce the extent to which circumstances are appraised as stressful, or might promote positive affect by enhancing self-esteem or feelings of self-efficacy. Lack of close relatives nearby, lack of close confidant other than husband, and having few close friends available to offer help are instrumental to development of postpartum depression. O’Hara (1986) assessed instrumental and emotional support from one’s spouse and a confidant as predictors of diagnosable major or minor depression after delivery. He found that both instrumental and emotional support from one’s spouse (but not from confidant) were associated with a lower incidence of postpartum depression. Similarly, Paykel, Emms, Fletcher, and Rassabe (1980) reported that confiding in the spouse and in another person predicted lower levels of depressive symptoms following childbirth. Cutrona (1984) claimed that a powerful predictor of postnatal depression was the availability of companionship and feelings of belonging to a group of similar others, rather than the quality of intimacy with the husband. She studied first-time adult mothers in the third trimester of pregnancy and one year later and reported that reliable alliance — where others can be counted on for assistance at any time — and reassurance of worth/perception of being liked and valued identified while pregnant was inversely related major depression.

Apart from emotional support, instrumental support is equally important for newborn mothers to cope with postpartum stress. Levitt, Weber, and Clark (1986) found that practical child care support was inversely related to psychological well-being among adult mothers. Paykel et al. (1980) found that help with household chores, shopping and caring for other children had a direct but not buffering effect on puerperal depression. Boyce, Schaefer, and Utti (1985) found that the number of network members providing direct aid or services to single adolescent mothers was negatively related to psychological well being. However, most adult studies found no relationship between network size and number of contacts and affective disorder postpartum. Stemp, Turner and Noh (1986) found that frequency of contacts with friends, relatives and neighbors was not related to psychological distress during postpartum time. Barnett and Parker (1986) found that neither availability nor
adequacy of social integration affected anxiety in primaparous mothers. O’Hara, Rehm, and Campbell (1983) also reported that social network size (number of network members and number of confidants), assessed pre- and post-natally, did not distinguish the depressed from the non-depressed mothers.

**Objectives of the Present Study**

Studies on relationship between postpartum depression and social support have been rare and unsystematic in Hong Kong. It remains to be determined as to how social support helps newborn mothers to cope with postpartum stress. Questions such as what difference social support makes to coping with stress by postpartum depressed mothers and postpartum non-depressed mothers, which kind of social support, perceived social support, emotional support and instrumental support, is necessarily more important than others, what is the internal relation between these different kinds of social support remain largely unanswered. Thus conceived, the present investigators conducted a study among a sample of postpartum depressed and non-depressed mothers in Hong Kong to identify the relationship between social support and postpartum depression. The study should be among the first of its kind conducted in Hong Kong.

**Method**

**Participants:**

A total of 36 adult postpartum women were sampled to participate in the present study. 11 were postpartum depressed mothers with a mean age of 33.70 years old (SD=3.02), 25 were postpartum non-depressed mothers with a mean age of 30.92 (SD=3.05). The mean infant age for the depressed and non-depressed mothers were 8.54 months (SD=3.67) and 4.16 months (SD=3.83) respectively. All but three of the participants were first time mothers. The postpartum depressed mothers were recruited from the “Postpartum Depression Support Project” (which is the first of its kind in Hong Kong to provide comprehensive support to mothers with postpartum depression) and had all been clinically diagnosed as having the mood disorder. The postpartum non-depressed mothers were recruited from two antenatal classes to which they had early attended.

**Questionnaire:**

To collect data for this study, a questionnaire consisting of Edinburgh Postnatal Depression Scale (EPDS), Self-Rating Depression Scale (SRDS) and Medical Outcome Study (MOS) Social Support Survey was used. The EPDS (Cox, Holden, & Sagovsky, 1987) has been developed to measure mothers suffering from postnatal depression. Consisting of ten short statements, it asks respondents to circle out of four possible responses the one that best describes her feelings during the past week. The internal consistency for the scale was very satisfactory to the present sample (alpha=0.89).

The SRDS (Zung, 1965) is one of the most widely used depression scales in both clinical and non-clinical settings. It asks respondents to rate the frequency of their depressive symptoms and 10 items were specially extracted from the scale for use in the present study. Compared with EPDS, the SRDS places greater emphasis on somatic complaints. Higher scores indicate a higher level of depression. The internal consistency of the 10 extracted items in this sample was very satisfactory as well (alpha=0.84).

The MOS Social Support Survey (Sherbourne & Stewart, 1991) originally has 50 items. 19 items were selected for use in this study, offering a brief, self-administered indicator of the availability of four categories of social support including tangible support, affectionate support, positive social interaction, and emotional or informational support.

The questionnaire takes 15-20 minutes to complete. The response format is a three-to-five point
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Likert scale. Internal consistency for the overall scale was 0.97 and the values for subscales ranged from 0.91 to 0.96. Item-scale correlations all exceeded 0.72.

Procedure:
The questionnaires were mailed to the 11 postpartum depressed women and to 46 participants who had attended the antenatal classes. All 11 copies were returned for the postpartum depressed group, while 25 out of 46 copies were returned for the postpartum non-depressed group (54% return rate).

RESULTS

Levels of Social Support among the Postpartum Depressed and Non-Depressed Mothers

Table 1 shows the means, standard deviations, and t values for the postpartum depressed and postpartum non-depressed mothers on different measures of social support.

Table 1. Means and Standard Deviations in Social Support Measures among Depressed and Non-depressed Postpartum Mothers

<table>
<thead>
<tr>
<th>Social Support Measures</th>
<th>Depressed Mothers (n=11)</th>
<th>Non-depressed Mothers (n=25)</th>
<th>t-value</th>
<th>df=34</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>A. Tangible Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help you if you are confined to bed</td>
<td>3.00</td>
<td>1.18</td>
<td>3.88</td>
<td>0.97</td>
</tr>
<tr>
<td>Take you to doctor</td>
<td>2.54</td>
<td>1.12</td>
<td>4.16</td>
<td>1.14</td>
</tr>
<tr>
<td>Prepare meals for you</td>
<td>2.81</td>
<td>1.40</td>
<td>4.24</td>
<td>0.83</td>
</tr>
<tr>
<td>Help daily chores if sick</td>
<td>3.18</td>
<td>1.25</td>
<td>4.40</td>
<td>0.81</td>
</tr>
<tr>
<td>B. Affectionate Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Show love and affection</td>
<td>3.45</td>
<td>1.12</td>
<td>4.40</td>
<td>0.64</td>
</tr>
<tr>
<td>Hugs you</td>
<td>3.09</td>
<td>1.30</td>
<td>4.32</td>
<td>0.90</td>
</tr>
<tr>
<td>Love and make you feel wanted</td>
<td>3.36</td>
<td>1.20</td>
<td>4.28</td>
<td>0.84</td>
</tr>
<tr>
<td>C. Positive Social Interaction Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give good time with</td>
<td>3.09</td>
<td>1.04</td>
<td>4.28</td>
<td>0.67</td>
</tr>
<tr>
<td>Get together with for relaxation</td>
<td>2.81</td>
<td>0.87</td>
<td>4.08</td>
<td>0.95</td>
</tr>
<tr>
<td>Do things with to get your mind off</td>
<td>2.90</td>
<td>1.13</td>
<td>3.84</td>
<td>0.68</td>
</tr>
<tr>
<td>Do something enjoyable with</td>
<td>3.00</td>
<td>1.00</td>
<td>3.96</td>
<td>0.84</td>
</tr>
<tr>
<td>D. Emotional or Informational Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listen to you</td>
<td>3.36</td>
<td>1.36</td>
<td>4.12</td>
<td>0.88</td>
</tr>
<tr>
<td>Give good advice about crisis</td>
<td>2.72</td>
<td>1.27</td>
<td>4.12</td>
<td>0.78</td>
</tr>
<tr>
<td>Give information</td>
<td>3.54</td>
<td>0.82</td>
<td>4.28</td>
<td>0.61</td>
</tr>
<tr>
<td>Confi de &amp; talk about yourself/problem</td>
<td>2.90</td>
<td>0.83</td>
<td>3.76</td>
<td>0.77</td>
</tr>
<tr>
<td>Whose advice you really want</td>
<td>3.00</td>
<td>1.00</td>
<td>3.52</td>
<td>0.77</td>
</tr>
<tr>
<td>Share private worries and fears</td>
<td>2.81</td>
<td>0.98</td>
<td>4.08</td>
<td>0.90</td>
</tr>
<tr>
<td>Turn to for suggestions</td>
<td>3.00</td>
<td>1.09</td>
<td>3.84</td>
<td>0.80</td>
</tr>
<tr>
<td>Understand your problems</td>
<td>3.27</td>
<td>1.00</td>
<td>3.84</td>
<td>0.80</td>
</tr>
</tbody>
</table>

Note: items score from 1 to 5 points

*p < .05, **p < .01, ***p < .001
The postpartum depressed group scored consistently lower than did the postpartum non-depressed group on all 19 items of social support. 16 of these differences are statistically significant, suggesting a strong social support effect on postpartum depression. Alternatively, postpartum depressed mothers did maintain lower level of perceived social support than did the postpartum non-depressed mothers.

Regarding tangible support, significant differences were found in all four items, indicating that postpartum depressed mothers received less tangible support than did their non-depressed counterpart. It is intriguing to note that the significant differences on tangible support items were similar to those on affectionate support items and positive social interaction items, implying that tangible support is as important as affectionate and positive social interaction support to new mothers in postpartum period.

As to affectionate support, significant differences were found on all three items as well, showing that the postpartum depressed mothers maintained less affectionate support from their network resources than did the non-depressed mothers. For the positive social interaction support, strong differences were similarly found on all four items, suggesting that a good companionship is crucial to helping newborn mothers to cope with stress and depression in early days of motherhood. With respect to emotional or informational support, strong group differences were found on all items except those of 'listen to you, whose advice you really want and understand your problems'. Taken together, these results demonstrate clearly the importance of various kinds of social support in coping with stress during postpartum period.

Correlation between Depression Measures and Social Support Measures

Table 2 shows the Pearson correlation coefficients between the depression measures, social support measures, and number of confidants.

The depression measures of EPDS and SDS all were significantly and negatively correlated with tangible support ($r = -.66$ and $-.71$, $p<.001$), affectionate support

<table>
<thead>
<tr>
<th>Depression and Social Support Measures</th>
<th>Depression Measures</th>
<th>Social Support Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPDS</td>
<td>SDS</td>
</tr>
<tr>
<td>Edinburg Postnatal Depression Scale (EPDS)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Self-Rating Depression Scale (SDS)</td>
<td>.87***</td>
<td>—</td>
</tr>
<tr>
<td>Tangible Support (TS)</td>
<td>—</td>
<td>-.56***</td>
</tr>
<tr>
<td>Affectionate support (AS)</td>
<td>—</td>
<td>-.69***</td>
</tr>
<tr>
<td>Emotional Informational Support (EIS)</td>
<td>—</td>
<td>-.74***</td>
</tr>
<tr>
<td>Positive Social Interaction (PSI)</td>
<td>—</td>
<td>-.76***</td>
</tr>
<tr>
<td>Number of Confidants (NOS)</td>
<td>—</td>
<td>-.39*</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01; ***p < .001
positive social interaction support ($r = -0.69$ and $-0.71$, $p < 0.001$), positive social interaction support ($r = -0.76$ and $-0.70$, $p < 0.001$) and emotional or informational support ($r = -0.74$ and $-0.73$, $p < 0.001$), thus affirming the strong social support effect on depression. Alternatively, the less perceived social support a postpartum mother receives, the higher level of depression she is likely to experience and vice versa.

Correlation coefficients among social support measures are all strong, suggesting a high internal consistency between them. Correlation coefficients between number of confidants and measures of depression and social support show that number of confidants was negatively related to depression but was positively related to social support. Except for the SDS, all other correlation coefficients are statistically significant, indicating that the more confidants the postpartum women have, the less likely they may feel depressed. Finally, given that the correlation between EPDS and NOS was relatively weak, number of confidants seems less powerful in predicting postpartum depression than other social support measures.

**Discussion**

The present results indicate that postpartum depressed women experienced significantly higher level of depression and received significantly lower level of social support. In other words, mothers of newborn babies who maintained a high level of social support would generally feel less depressed. Previous studies have shown that postpartum women often experience somatic symptoms that appear similar to depression symptoms (Cooper, Campbell, Day, Kennerley, & Bond, 1988; Gutrona, 1983; O'Hara et al., 1990). These symptoms may actually reflect normal physiological changes of parturition and concerns related to the normal transition to parenthood (Ruble, Brooks-Gunn, Fleming, Fitzmaurice, Stangor, & Deutsch, 1990). By implications of these findings, researchers and clinicians ought not to overpathologize these normal adjustment reactions when dealing with postpartum women, instead they ought to try to maximize their social support resources.

Cohen (1988) suggested that social support might reduce the extent to which circumstances are appraised as stressful and promote positive affect by enhancing self-esteem or feelings of self-efficacy. A buffering effect may occur as social support protects people from its pathogenic effect. Alternatively, social support could play a dual-role in the stress-pathology causal chain (Cohen & Mckay, 1984; Gore, 1981). First, social support may intervene between the stressful event (or expectation of that event) and the stress experience by attenuating or preventing a stress response. Second, social support may intervene between the experience of stress and the onset of the pathological outcome by directly influencing responsible illness behaviors. Recent researches provide evidence for the buffering effect of social support on health and well-being (Kessler & Mcleod, 1985). The perception that others are willing to help could increase positive affects and elevate a sense of self-worth, acceptance and control over the environment.

In relation to our findings, the postpartum depressed mothers were shown to have
maintained less tangible support, affectionate support, positive social interaction support and emotional or informational support than the postpartum non-depressed mothers. This seems to indicate an inhibitory effect of social support on the postpartum depression. In fact, tangible support such as child care was found to be inversely related to psychological well-being (Levitt et al., 1986) while sharing household chores, shopping and caring baby had a instrumental effect on puerperal depression (Paykel et al., 1980). Stemp et al. (1986) found that emotional support, including the perception of being liked and valued was inversely related to distress levels. Turner (1981) even posited that depression could lead to a negative distortion of the availability or adequacy of social support.

Our findings also showed that the postpartum depressed and non-depressed groups differed in the number of confidants. Mothers with more confidants tended to report greater amount of perceived social support. Network researchers assert that social and community ties do help to promote feelings of belonging and attachment, provide positive models and reference groups, and exert pressures to conform to normative standards and to social roles (Mitchell & Tricket, 1980; Moos & Mitchell, 1982). Larger networks may also be associated with greater perceptions of available support or with increased opportunities for shared activities and companionship (Rook, 1987).

Conclusions

The present findings show that social support is strongly felt and needed by women during postpartum period. A caring environment in which postpartum mothers could freely express their feelings without fearing being rejected and condemned is critical to helping their mental and physical adaptation to newborn babies. Therefore, a general inhibitory effect of social support on occurrence of postpartum depression is identified. By its implications, effective prevention of postpartum programmes should try to the following: Firstly, the screening for at-risk postpartum depressed mothers should become a standard practice for prenatal health care, childbirth education class, hospital discharge routines and pediatric practice; secondly, childbirth classes should place equal emphasis on psychological preparation to parenthood in addition to physiological preparation; thirdly, spouses and other significant family members are encouraged to be involved as much as possible before, during and after the childbirth; fourthly, as a patient’s relatives are often seen by clinicians as part of the problem rather than a social resource (Heller, 1979), therapies that are ecologically valid are recommended; fifthly, intervention should work synergistically with social and community approaches and to increase the willingness or ability of patients to access support from others on the one side and to increase the willingness or ability of actual or potential supporter to offer social support to patients.

Though being among the first of its kind in Hong Kong, this study had a number of limitations as well. First, this study has not addressed well enough the issue of what personality or contextual variables may affect one appraisal of support.
transactions. Past researches indicate that help-seeking beliefs, anxiety and social competence, self-esteem, attachment styles, and family and cultural norms are among the major factors that determine one's ability or willingness to make use of social resources. Thus, further research is needed to clarify more specifically how these factors affect postpartum depression. It would be particularly interesting to examine how Chinese caring practices for newborn mothers, such as "doing the month", could affect postpartum depression. Secondly, given the practical difficulties in identifying women with postpartum depression, the present investigators were unable to recruit a larger sample for comparison with postpartum non-depressed mothers. Hence, the resultant findings need to be cautiously interpreted as they could be subject to random errors, more tests are necessary before these findings can be solidly claimed. Third, the availability of social support may vary with respect to demographic variables. Further researches need to be done to study the relationship between variables affecting the availability of various types of social support.

REFERENCES


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