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First-time mothers: social support, maternal parental self-efficacy and postnatal depression

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Aims and objectives. To examine the relationships between social support, maternal parental self-efficacy and postnatal depression in first-time mothers at 6 weeks post delivery.

Background. Social support conceptualised and measured in different ways has been found to positively influence the mothering experience as has maternal parental self-efficacy. No research exists which has measured the relationships between social support, underpinned by social exchange theory and maternal parental self-efficacy using a domain-specific instrument, underpinned by self-efficacy theory and postnatal depression, with first-time mothers at 6 weeks post delivery.

Design. A quantitative correlational descriptive design was used.

Method. Data were collected using a five-part questionnaire package containing a researcher developed social support questionnaire, the Perceived Maternal Parental Self-Efficacy Scale and the Edinburgh Postnatal Depression Scale. Four hundred and ten mothers completed questionnaires at 6 weeks post delivery.

Results. Significant relationships were found between functional social support and postnatal depression; informal social support and postnatal depression; maternal parental self-efficacy and postnatal depression and informal social support and maternal parental self-efficacy at 6 weeks post delivery.

Conclusion. Nurses and midwives need to be aware of and acknowledge the significant contribution of social support, particularly from family and friends in positively influencing first-time mothers' mental health and well-being in the postpartum period. The development of health care policy and clinical guidelines needs to define and operationalise social support to enhance maternal parental self-efficacy.

Relevance to clinical practice. These findings suggest that nurses and midwives need to be cognisant of the importance of social support for first-time mothers in both enhancing maternal parental self-efficacy and reducing postnatal depressive symptomatology in the early postpartum period.

Key words: first-time mothers, maternal parental self-efficacy, post delivery, postnatal depression, social exchange theory, social support

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Introduction

This paper is based on a larger research study which examined social support, maternal parental self-efficacy and postnatal depression in first-time mothers at three time periods and explored the relationship between these variables. Becoming a mother for the first time is a major developmental transition of adulthood (Harwood *et al.* 2007) and change is an inevitable element of that process. Previous research indicates that social support facilitates the transition to motherhood (Bloomfield *et al.* 2005). The transition is also influenced by mothers' own beliefs in their capabilities as new mothers. These factors can influence mothers' maternal mental health and well-being (Choenarom *et al.* 2005).

Social support

Background

International and National Policy documents suggest that support is necessary for maternal and infant well-being (Commission on the Family 1998, World Health Organisation 2005) and facilitates women's adaptation to motherhood (Schachman et al. 2004). In previous research, mothers in the postnatal period have reported that help received from their husbands and mothers, both with household chores and infant care, to be of great importance to them (Häggman-Laitila 2003) Providing support for mothers in caring for their infants in the postnatal period is an important concern for nurses and midwives, because previous research has shown that social support can facilitate women's transition to motherhood (Logsdon & Davis 2003, Wilkins 2006), some of whom find the transition psychologically stressful (Leahy-Warren & McCarthy 2007). Social support has been investigated with new mothers in the postpartum period, both from mothers' perspective (Bullock et al. 2002) and from healthcare delivery perspective (Tarkka et al. 1999). However, some studies lack a clear definition of social support; there is a variety of measurement instruments some of which lack conceptual and empirical underpinnings; and as Logsdon et al. (1996) argue some do not clearly demonstrate validity and reliability in the context of new motherhood. Based on the literature, particularly that of House (1981), the theoretical definition of social support for this study is the combination of social structures and social functions, where social structures demonstrate cohesiveness and there is a flow of emotional concern. instrumental aid, information and appraisal between people.

Maternal parental self-efficacy

Parental self-efficacy is beliefs a parent holds of their capabilities to organise and execute a set of tasks related to

parenting a child. The attributes of parental self-efficacy have been identified as personal beliefs; capabilities and power; ability to organise and execute actions which produce results; and are situation-specific. Parental efficacy is key to enhancing parenting and supporting parents in their parenting role (Bloomfield et al. 2005). Parental self-efficacy has been found as a mediator between mothers' experience with older children, education and satisfaction with parenting (Coleman & Karraker 2000), a mediator between social support and conflict for mothers (Erdwins et al. 2001). It has also been found to influence healthy parenting practices (Finlayson et al. 2007). Research with mothers in the postpartum period specifically using Bandura (1997) theory of self-efficacy was found to support this theory. Results from Froman and Owen (1990) showed that maternal age and number of children were among the strongest predictors of maternal parental self-efficacy, demonstrating previous and vicarious experience. Hudson et al. (2001) findings revealed that mothers peaked earlier than fathers in relation to parental self-efficacy scores. Findings from research by Teti and Gelfand (1991) indicated that maternal parental self-efficacy improved over time, was positively associated with parenting competence and negatively related to depression. Results from Cutrona and Troutman (1986) and Reece (1992) research established a negative association between maternal parental self-efficacy and depression, thus supporting a further two principles of Bandura's theory. Kapp (1998) found that multiparas had higher confidence with infant care practices than primiparas and research by Leahy-Warren (2005) revealed that appraisal support was significantly related to maternal confidence with infant care practices. The findings from the latter two studies support Bandura's theory of self-efficacy in that vicarious experience increases self-efficacy as does verbal persuasion. Furthermore, qualitative studies with new mothers in the postpartum period identified themes such as the importance of self confidence (Hall Moran et al. 2006) and fear of self doubt (Wilkins 2006), which Bandura (1997) attributes to low self-efficacy. A limitation identified in previous research was the paucity of domain specific measures of maternal parental self-efficacy in the context of early motherhood and infant care practices (Barnes & Adamson-Macedo 2007).

Whilst very few studies have explored the potential impact of maternal parental self-efficacy on postnatal depression, it seems logical that a relationship may exist between these two concepts. Given that Bandura (1986) postulates that an individual's sense of self-efficacy operates to reduce perceptions of reactions to stress and depression, it seems reasonable that the more a mother feels able to successfully handle the demands of new motherhood, the less is her experience of stress and depression.

Postnatal depression

Postnatal depression and postnatal depression symptoms can compromise maternal functioning and the developing mother-infant relationship in early motherhood at this crucial time (Beck 1995). Despite its relatively high incidence, postnatal depression can be difficult to detect, in part because new mothers are often reluctant to report depressive symptoms to health care professionals. The most significant factor in the duration of postnatal depression has been found to be the length of delay to early recognition and adequate treatment. Effective interventions for postnatal depression and postnatal depression symptoms need to be initiated as soon as possible, therefore early detection is imperative for this to be realised.

Numerous studies reveal a prevalence of postnatal depression in the community at between 10-15% (Brown & Lumley 2000). There are strong indications that postnatal depression can have long-term adverse effects on the cognitive and emotional development of the child (Sinclair & Murray 1998). In the literature, mothers with postnatal depression describe feelings of loss, such as loss of control (Beck 1992, 1993, Ugarriza 2002, Chan & Levy 2004) or loss of former identity (Nicolson 1990). Postnatal depression differs from general depression from the perspective of timescale (Evans et al. 2001) and in the context of role transition, the loss of familiarity, loss of control and the need to feel normal (Scrandis 2005). Evidence-based treatments include antidepressants (Wisner et al. 2004), Psychodynamic therapy (Cornwall 2003), supportive counselling either in the home (Holden et al. 1989) as a member of a group or telephone contact (Logsdon & Davis 2004). While postnatal depression has been measured in the postnatal period and associated with social support and maternal parental self-efficacy, no study exists which measured social support underpinned by social exchange theory, maternal parental self-efficacy underpinned by self-efficacy theory and postnatal depression with firsttime mothers only at 6 weeks post delivery.

There is the need for further research to be undertaken measuring social support underpinned by social exchange theory, which necessitates the inclusion of measuring both the structural and functional dimensions of social support in the context of infant care practices. Maternal parental selfefficacy needs to be measured using a domain-specific instrument underpinned by self-efficacy theory and postnatal depression measured using an appropriate validated instrument. Furthermore, there is a need to examine the relationships between social support, maternal parental self-efficacy and postnatal depression for these variables with first-time mothers only. The purpose of this research was to examine the relationship between social support, maternal parental self-efficacy and postnatal depression in first-time mothers at 6 weeks post delivery.

Conceptual framework

The conceptual framework (Fig. 1) supporting the research is underpinned by social exchange theory (Homans 1961, Blau 1964) and Bandura's theory of self-efficacy (Bandura 1997). Social exchange theory is concerned with the exchange of activity (Homans 1961, Blau 1964) between at least two people. Social support was conceptualised in terms of both structural (sources of support) and functional components (informational, instrumental, emotional and appraisal) and were treated as two variables of the construct social support (House 1981). Maternal parental self-efficacy is defined as mothers' beliefs about their ability to be successful in the parenting role. Postnatal depression is defined as a psychosocial phenomenon occurring within 12 months post delivery.

Methods

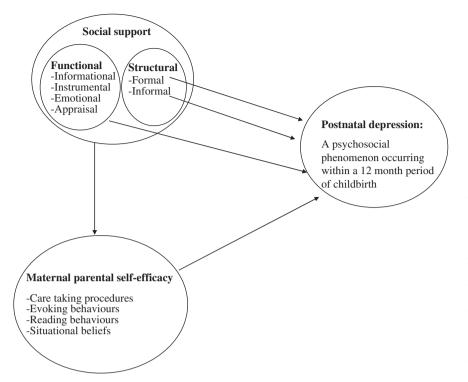
Design

A descriptive correlational design was used (Polit & Beck 2004).

Instruments

Socio-demographic data were collected on both mothers and their infants.

Social support was measured by a researcher developed instrument in terms of structural and functional dimensions (Fig. 1). This instrument was developed directly from a large body of literature and used a conceptual framework based on Homan's (1961) and Blau's (1964) social exchange theory. In devising the functional dimensions of social support, which are informational, instrumental, emotional and appraisal, an extensive list of 122 items for this part of the questionnaire was generated from the literature and previous research undertaken by this researcher (Leahy-Warren 2005). This list was then reviewed independently by four experienced nurses/ midwives to eliminate repetition. The experienced nurses/ midwives function as faculty or clinicians in the area of maternal-child health. The revised list containing 37 items were returned to the four nurses/midwives to rate each item on the questionnaire as appropriate or inappropriate in representing social support functional dimensions in the postpartum period. The agreed items for the final questionnaire were 16 questions, where each functional dimension



was measured using 4 questions. With regard to structural social support, using the conceptual framework (Fig. 1) underpinned by social exchange theory and the literature, the individuals in first-time mothers' social networks' sources were identified. A pilot study was carried out with respondents' (n = 20) to test the face validity of the instrument. In this study the Cronbach's alpha coefficient was 0.80.

Maternal parental self-efficacy was measured using the perceived maternal parental self-efficacy tool (PMP S-E) (Barnes & Adamson-Macedo 2007). The PMP S-E is a 20 item four-point Likert Scale comprising of four theorised subscales. Content validity was assessed using the literature, the researchers' expertise, adaptation of previous similar instruments and rated by mothers in the postpartum period. Construct validity was assessed and confirmed using three methods: Exploratory factor analysis; comparison of contrasted groups and divergent–construct validity. Based on a sample of 160 healthy and hospitalised mother-preterm dyads, the instrument demonstrated internal consistency of 0·91. In this study the Cronbach's alpha coefficient was 0·89.

Postnatal depression was assessed using the Edinburgh Postnatal Depression Scale (EPDS) (Cox *et al.* 1987), which is a 10-item, self-report instrument designed as a screening questionnaire to detect postnatal depression. Cox and Holden (2003) suggest that using a cut-off of 9/10 is likely to detect all cases of depression. However, they recommend a cut-off of <12 in a primary care setting using a postal questionnaire, as a cut-off less than this may be overFigure 1 Neo-conceptual framework describing social support (functional and structural), maternal parental self-efficacy and postnatal depression, devised through previous work (Homans 1961, Blau 1964, House 1981, Cox *et al.* 1987, Barnes & Adamson-Macedo 2007). Functional social support has four dimensions: informational, instrumental, emotional and appraisal support. Structural social support has two dimensions: formal (health care professionals) and informal (family, friends and significant others) social support.

inclusive. In this study a cut-off of >/= 11 was used to assess for postnatal depression. The sensitivity and specificity of the EPDS have been assessed repeatedly and reported by Cox and Holden (2003). According to Cox and Holden (2003) for detection of major depression, its sensitivity ranged from 67–100% and specificity from 68–94%. For minor depression, sensitivity ranged from 52–73%. When both the detection of minor and major depression was combined, the EPDS' sensitivity ranged from 68–80% and specificity was 77%. In this study the Cronbach's alpha coefficient was 0-88.

Sample

The sampling frame used was first-time mothers whose baby was born in a large maternity unit in the Republic of Ireland. Eligibility criteria for selection were: first-time mother; 18 years and over; medically uncomplicated pregnancy or delivery full term at delivery; singleton baby; Baby discharged with mother; English as first language; white Caucasian. Based on an expected prevalence of PND of 12%, the sample size required to estimate the prevalence with a 3% margin of error with 95% confidence was 447.

Procedure

The Teaching Hospitals Ethics Committee gave approval to conduct the research. Participants were informed of the study by maternity staff and gave informed consent when the researcher met with them prior to discharge from hospital. Those willing to participate were advised of their freedom to withdraw from the study at any time and were assured of anonymity as only code numbers identified them as study respondents. All data were stored in locked cabinets and only accessed by the researchers. Mothers were recruited at birth (n = 589) and at 6 weeks, the research instruments measuring social support, maternal parental self-efficacy and postnatal depression were mailed to participants. Mothers (n = 410) completed and returned questionnaires in the stamped addressed envelope provided. Data were collected during the first 6 months of 2008.

Data analysis

Data from the social support, maternal parental self-efficacy and postnatal depression questionnaires were entered and analysed using the statistical package for social sciences Version 16.0. A total functional social support score and subscale scores were computed for social support. The total Functional Social Support Score was the sum of all items giving a total possible minimum score of 22 and maximum score of 88 for each person. Each subscale was scored by the sum score. For both the Informational and the instrumental support subscale the scores ranged from the lowest at 7 to the highest at 28. For the Instrumental subscale, the scores ranged from the lowest at 4 and the highest at 16. Structural social support was considered from formal sources (GP, midwife and community nurse) and informal sources (husband/partner, mother, father, sister, friend) Participants responded if they received informational support, instrumental support, emotional support and appraisal support from each potential source. Formal and informal structural social support were considered to have been received if any of the four types of support were received from at least one source (Table 1).

Table 1 Questionnaires scores

Social support functional	Minimum score	Maximum score
Informational	7	28
Instrumental	7	28
Emotional	4	16
Appraisal	4	16
Total functional social support	22	88
Structural social support		
Informal social support	Yes/no	
Formal social support	Yes/no	
PMP S-E	20	80
EPDS	0	30

Maternal parental self-efficacy was determined by the total score of the PMP S-E, which ranged between 20–80 overall where the higher the score the higher the self-efficacy. Postnatal depression was determined by the total score on the EPDS. The cut-point of 11 recommended by Cox *et al.* (1987) was applied to distinguish between those at high risk of PND (score > 11) and those at moderate risk (score \leq 11).

The chi-square non-parametric test was used to assess the relationship between variables. Pearson's product-moment correlation coefficient was used to measure the linear relationship between continuous variables, but Spearman's rank correlation coefficient was used in cases where the assumption of normality of the data was not met. Cohen's (1988) guidelines were used for interpreting the strength of the correlation. An r from 0.10–0.29 represents a small or weak correlation, 'r' from 0.30–0.49 represents a medium or moderate correlation, 'r' from 0.50–1.00 represents a large or strong correlation.

Results

Socio-demographic characteristics of participants

Demographic data revealed 33.6% of respondents were in the 31–35 year age category and 30.1% in the 27–30 year category. Twenty percent of respondents were educated to secondary school level and a further 72% to University/third level. One fifth (20%) stated their occupation in the category 'clerical'; 17% in the category 'associate professionals'; 9.5% in the category 'health associate professionals' and remainder in the category 'managers and proprietors'. In relation to living arrangements, respondents reported living with their husband 64% (n = 305), partner 23% (n = 110), parents 7% (n = 49) or alone 4% (n = 16). The average stay in hospital was 3.6 days. A greater number of vaginal deliveries (68%, n = 258) than caesarean sections (33%, n = 128) were reported among respondents.

Descriptive analysis of social support, maternal parental selfefficacy and postnatal depression

The vast majority of respondents reported informal social networks (i.e. family and friends) as their main sources of support (mean = 4.94 SD 1.8) with fewer participants indicating receiving formal support (health professionals) (mean = 0.74 SD 0.44) in caring for their infant in the first 6 weeks post delivery. The persons most frequently identified by mothers as having provided support were own mothers, husbands/partners and sisters. Functional social support was measured using a 22 item four-point Likert

scale with a total possible minimum score of 22 and maximum score of 88. In this study the Cronbach's alpha coefficient for the social support scale was 0.80. With regard to functional social support for first-time mothers at 6 weeks, the mean total functional social support score for 398 women was 68.3 (SD 8.9) with a range from 47–88. This means that overall mothers indicated that they received high levels of the different types of support. For individual scales the scores were varied. The mean functional informational social support score for the women (n = 396) was 20.2 (SD 3.6); instrumental social support (n = 402) was 21.3 (SD 3.7); emotional support (n = 402) was 13.6 (SD 2.0) and appraisal support was 13.1 (SD 2.0). These findings indicate that mothers received high levels of all four functional supports.

With regard to maternal parental self-efficacy, the mean score on the PMP S-E tool (Barnes & Adamson-Macedo 2007) was 65.9 (SD 8.2) (range 32-80) and the median was 60, indicating a high level of maternal parental self-efficacy for respondents. In this study the Cronbach's alpha coefficient for the PMP S-E was 0.89. Postnatal depression was determined in this study by respondents' score on the EPDS scale (Cox et al. 1987). In this study the Cronbach's alpha coefficient for the EPDS was 0.88. The majority of respondents scored between 0-12 with the mean of 7.2 (SD 4.4). A prevalence rate of 13.2% (95% CI: 9.8-16.6%) was found with a confidence interval of 95%. All support measures correlated negatively and highly statistically significantly with postnatal depression scores (Table 2) although the strength of the correlations would be considered weak or moderate. As can be seen from Table 2, total functional social support represents a moderate correlation with postnatal depression.

Relationship between informal social support and maternal parental self-efficacy

Results revealed a statistically significant correlation between informal structural social support and maternal parental self-efficacy at 6 weeks post delivery (r = 0.21, p < 0.001).

 Table 2 Correlations between support measures and postnatal depression scores

Support measure	Correlation coefficient, <i>r</i>	Significance
Total functional social support	-0.43	<i>p</i> < 0.001
Informational support Instrumental support	-0.29 -0.33	p < 0.001 p < 0.001
Emotional support	-0.33 -0.40	p < 0.001 p < 0.001
Appraisal support	-0.41	p < 0.001
Informal structural social support	-0.50	p < 0.001

Relationship between maternal parental self-efficacy and postnatal depression

There was a statistically significant relationship between maternal parental self-efficacy and postnatal depression ($\chi^2 = 18.26$, df = 2, p < 0.001).

Relationship between total functional social support and subscales and postnatal depression

There was a statistically significant inverse relationship between total functional social support and postnatal depression (r = -0.43, p < 0.001) at 6 weeks and between informational support and postnatal depression (r = -0.29, p < 0.001) and between instrumental support and postnatal depression (r = -0.33, p < 0.001) and between emotional support and postnatal depression (r = -0.40, p < 0.001) and between appraisal support and postnatal depression (r = -0.41, p < 0.001).

Relationship between informal structural social support and postnatal depression

There was a statistically significant inverse relationship between informal structural social support and postnatal depression (r = -0.20, p < 0.001) at 6 weeks.

Discussion

The research used was a quantitative descriptive correlational design. The outcomes of previous qualitative research and quantitative descriptive studies using insufficient samples suggested the need for the current design to enhance the body of knowledge necessary to underpin improving support services to mothers. Consequently, a conceptual framework was developed to support a study design which explored the broader applicability of substantive theory particularly on social support and maternal parental self-efficacy in the postnatal period using a large sample. The major finding of this study was the significance of family support in enhancing maternal parental self-efficacy and positively influencing mental health for first-time mothers at 6 weeks post delivery. There was a significant association between informal social network (family and friends) support and maternal parental self-efficacy at 6 weeks post delivery. While there is support in the literature that social support enhances self-efficacy (Jones & Prinz 2005), only one prior and recent study identified maternal support being significantly related to maternal parental self-efficacy in the context of the postpartum period for first-time mothers (Haslam et al. 2006). The present research enhances Haslam's et al.'s (2006) findings, in that women in this research identified their maternal mother as the parental person identified most frequently by respondents as having provided them with all four types of social support. It is likely that support from own mothers increases maternal parental self-efficacy in two ways. Maternal mothers may provide vicarious experience relating to infant care and verbal encouragement, two major influences identified by Bandura as ways of increasing maternal parental self-efficacy. In a previous, but older study, Cutrona and Troutman (1986) found that social support exerted a protective function indirectly by enhancing parenting efficacy beliefs. Cutrona and Troutman (1986) used a general measure of social support and found maternal parental self-efficacy was a mediator between social support and postnatal depression. However, similar to this study findings, Teti and Gefland (1991) demonstrated that higher self-efficacy was positively associated with marital support and negatively with maternal depression. Hence findings from this study extend previous research in that mothers in this study have identified the informal social network sources that provided them with the different types of functional supports. Moreover, this study outcomes support two principles of Bandura's theory of self-efficacy: that social persuasion in the guise of informal support positively influences parenting self-efficacy and that psychosocial variables such as depression have inverse relationships to selfefficacy. It is therefore important for first-time mothers to have high levels of maternal parental self-efficacy because both previous research and this research has demonstrated that mothers with higher maternal parental self-efficacy in the early postnatal transition period have increased ability in parenting and better mental health outcomes one year after delivery (Reece 1992).

Results showed that lower levels of social support were related to higher rates of postnatal depression in the postpartum period which is consistent with previous studies (O'Hara & Swain 1996, Glasser et al. 2000, Inandi et al. 2002, Surkan et al. 2006, Ege et al. 2008, Gao et al. 2008). What this research adds to previous research relates to the measurement of social support. In this research, both social structural support and functional social support were independently and inversely related to postnatal depressive symptomatology. Furthermore, differentiation was also made between support received from different social network sources and the types of functional support in the context of the postpartum period. In this study, functional social support was significantly related to postnatal depression as was each individual dimension of functional social support at 6 weeks post delivery. This is a new finding and means that mothers who independently received informational support, instrumental support, emotional support and/or appraisal support were less likely to experience

postnatal depressive symptomatology at 6 weeks post delivery. Therefore, a high level of support from family and friends was related to lower symptoms of depression at 6 weeks. With increasing levels of informal structural support, the prevalence of depression decreased. Compared to those with high levels of support, the odds of being depressed was nearly twice that with medium support and nearly four times higher in those with low support. The majority of mothers identified partners, own mothers and friends as providing them with all four types of social support. This finding is consistent with previous research where partner support had a significant effect in reducing postnatal depression (p = 0.013) (Misri *et al.* 2000) as did peer support (Dennis 2003).

In this study, there was no evidence of an association between professional support and postnatal depressive symptomatology. Perhaps this is not surprising in that the time mothers spent in hospital was limited to an average of just over three days. In their systematic review Shaw et al. (2006) found no evidence that universal postpartum support is of benefit to mothers, however, there was evidence that mothers at high-risk of postnatal depression would benefit from health professional home visits and peer support. Similar findings have been reported from research using randomised controlled trials where the intervention was frequent professional support visits (Armstrong et al. 1999, MacArthur et al. 2002). Whilst the measure of social support in these studies were universal as opposed to context specific as in this study, it is likely that the weekly home nurse visits to mothers included elements of social exchange theory, specifically the length of the relationship and frequency of contact, perception of support available including the functional dimensions of information, instrumental, emotional and appraisal support. Previous research in this area frequently operationalised social support as either professional or paraprofessional support without delineating the structural and functional dimensions and thus comparisons are difficult. These findings further support the elements of social exchange theory in strengthening the ties of first-time mothers' social network. Social support as it is conceptualisation in this research, contributes significantly to first-time mothers' psychological well-being in the first 6 weeks post delivery. These results further reinforces the importance of measuring more than one dimension of social support in the postpartum in identifying both the sources and types of support that are strongly linked to protecting women's health in the postnatal period (Haslam et al. 2006, Ege et al. 2008). This may be due to the multidimensional and context specific measures of social support used in this study as opposed to the general measure in previous studies.

Conclusion

In summary, significant relationships were found between functional social support and postnatal depression; informal social support and postnatal depression; maternal parental self-efficacy and postnatal depression and informal social support and maternal parental self-efficacy at 6 weeks post delivery. In devising individualised nursing and midwifery care plans for new mothers at risk of postnatal depression, consideration needs to be given to mobilising social support, both functional and structural dimensions. Social support interventions need to reflect the dimensions as conceptualised in this research and specific to new mothers in the context of infant care practices in the postnatal period. Furthermore, enhancing maternal parental self-efficacy for first-time mothers in the 6 weeks post delivery is significant in positively influencing their mental health and well-being. The significance of maternal mothers and partners giving social support to first-time mothers in enhancing maternal mental health and the promotion of maternal parental self-efficacy in nursing and midwifery care plans is essential.

Relevance to clinical practice

Recommendations for clinical practice include the necessity for nurses and midwives to emphasise the importance of family, particularly their partner and own mothers as providers of social support in the postnatal period. Furthermore nurses and midwives need to understand the concept of social support and empower mothers to mobilise support. In the community setting nurses could provide anticipatory guidance for new mothers, such as organising peer-support group forums, to facilitate vicarious experience, as it is also recognised as a maternal parental self-efficacy enhancement strategy. This will help to normalise maternal anxiety, stress

References

- Armstrong K, Fraser J, Dadds M & Morris J (1999) A randomized, controlled trial of nurse home visiting to vulnerable families with newborns. *Journal of Paediatrics and Child Health* 35, 237– 244.
- Bandura A (1986) Social Foundations of Thought and Action: A Social Cognitive Approach. Prentice-Hall, Englewood Cliffs NJ.
- Bandura A (1997) Self-efficacy: The Exercise of Control. Freeman & Co., New York.

and fatigue, cognisant of the realities of first-time motherhood and also provide a forum for early detection of postnatal depression.

Limitations

As this was a quantitative study, mothers' in-depth perceptions and experiences of social support, maternal parental self-efficacy and postnatal depression have not been explored from their frame of reference. Furthermore, a convenience sample was selected due to time constraints and in an effort to obtain a large number of respondents with consideration for tests of statistical significance. A random sample may have provided a group with differing support needs, maternal parental self-efficacy levels and rates of postnatal depression.

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Contributions

Study design: PL-W, GMC; data collection and analysis: PL-W, PC and manuscript preparation: PL-W, GMC, PC.

Conflict of interest

None.

- Barnes CR & Adamson-Macedo E (2007) Perceived maternal parenting self-efficacy (PMP S-E) tool: development and validation with mothers of hospitalized preterm neonates. *Journal of Advanced Nursing* 60, 550–560.
- Beck C (1992) The lived experience of postpartum depression: a phenomenological study. *Nursing Research* 41, 166–170.
- Beck C (1993) Teetering on the edge: a substantive theory of postpartum depression. *Nursing Research* **42**, 42–48.
- Beck C (1995) The effects of postpartum depression on maternal-infant interaction: a meta-analysis. Nursing Research 44, 298–304.
- Blau P (1964) *Exchange and Power in Social Life.* Wiley & Sons, London.
- Bloomfield L, Kendall S, Applin L, Attarzadeh V, Dearnley K, Edwards L, Hinshelwood L, Lloyd P & Newcombe T (2005) A qualitative study exploring the experiences and views of mothers, health visitors and family support centre workers on the challenges and

difficulties of parenting. Health & Social Care in the Community 13, 46-55.

- Brown S & Lumley J (2000) Physical health problems after childbirth and maternal depression at six to seven months postpartum. *British Journal of Obstetrics and Gynaecology* **107**, 1194–1201.
- Bullock LFC, Browning C & Geden E (2002) Telephone social support for low-income pregnant women. Journal of Obstetric, Gynaecologic, & Neonatal Nursing 31, 658–664.
- Chan S & Levy V (2004) Postnatal depression: a qualitative study of the experiences of a group of Hong Kong Chinese women. *Journal of Clinical Nursing* **13**, 120–123.
- Choenarom C, Williams R & Hagerty M (2005) The role of sense of belonging and social support on stress and depression in individuals with depression. *Archives of Psychiatric Nursing* **19**, 18–29.
- Cohen JW (1988) Statistical Power Analysis for the Behavioural Sciences, 2nd edn. Lawerence Erlbaum Associates, Hillsdale, NJ, USA.
- Coleman P & Karraker K (2000) Parenting self-efficacy among mothers of schoolage children: conceptualisation, measurement and correlates. *Family Relations* **49**, 13–24.
- Commission on the Family (1998) Strengthening Families for Life: Final report to the Minister for Social and Community and Family Affairs. Government Publications, Dublin.
- Cornwall P (2003) Treating maternal depression. *British Medical Journal* 183, 461–462.
- Cox J & Holden J (2003) Perinatal Mental Health (A Guide to the Edinburgh Postnatal Depression Scale). Gaskell, London.
- Cox J, Holden J & Sagovsky R (1987) Detection of postnatal depressiondevelopment of the 10-item Edinburgh postnatal depression scale. *British Journal of Psychiatry* **150**, 782–786.
- Cutrona C & Troutman B (1986) Social support, infant temperament and parenting self-efficacy: a mediational model of postpartum depression. *Child Development* 57, 1507–1519.
- Dennis C (2003) The effect of peer support on postpartum depression: a pilot randomized controlled trial. *Canadian Journal of Psychiatry* 48, 115–124.

- Ege E, Timur S, Zincir H, Geçkil E & Sunar-Reeder B (2008) Social support and symptoms of postpartum depression among new mothers in Eastern Turkey. *Journal of Obstetric Gynaecologic Research* 34, 585–593.
- Erdwins C, Buffardi L, Casper W & O'Brien A (2001) The relationship of women's role strain to social support, role satisfaction and self-efficacy. *Family Relations* 50, 230–238.
- Evans J, Heron J, Francomcomb H, Oke S & Golding J (2001) Cohort study of depressed mood during pregnancy and after childbirth. *British Medical Journal* 323, 257–260.
- Finlayson T, Siefert K, Ismail A & Sohn W (2007) Maternal self-efficacy and 1–5year-old children's brushing habits. *Community Dentistry and Oral Epidemiology* 35, 272–281.
- Froman R & Owen S (1990) Mothers' and nurses perceptions of infant care skills. *Research in Nursing and Health* 13, 247–253.
- Gao L, Chan S & Mao Q (2008) Depression, perceived stress and social support among first-time Chinese mothers and fathers in the postpartum period. *Research in Nursing & Health* 32, 50–58.
- Glasser S, Barell V, Boyko V, Ziv A, Lusky A & Al S (2000) Postpartum depression in an Israeli cohort: demographic psychosocial and medical risk factors. *Journal of Psychosomatic Obstetrics* and Gynaecology 21, 99–108.
- Häggman-Laitila A (2003) Early support needs of Finnish families with small children. *Journal of Advanced Nursing* 41, 595–606.
- Hall Moran V, Dykes F, Burt S & Shuck C (2006) Breastfeeding support for adolescent mothers: similarities and differences in the approach of midwives and qualified breastfeeding supporters. *International Breastfeeding Journal* 1, http://www.internationalbreastfeeding journal.com/content/1/1/23 (accessed 21 June 2007).
- Harwood K, McLean N & Durkin K (2007) First-time mothers' expectations of parenthood: what happens when optimistic expectations are not matched by later experiences? *Developmental Psychology* **43**, 1–12.
- Haslam D, Pakenham K & Smith A (2006) Social support and postpartum depressive symptomatology: the mediating

role of maternal self-efficacy. *Infant Mental Health Journal* 27, 276–291.

- Holden J, Sagovsky R & Cox J (1989) Counselling in a general practice setting; controlled study of health visitor intervention in treatment of postnatal depression. *British Medical Journal* 298, 223–226.
- Homans G (1961) Social Behaviour: Its Elementary Forms. Routledge, London.
- House J (1981) Work, Stress and Social Support. Addison-Wesley, Reading, MA.
- Hudson D, Elek S & Flek M (2001) First time mothers and fathers transition to parenthood: Infant care, self-efficacy, parenting satisfaction and infant sex. *Issues in Comprehensive Paediatric Nursing* 24, 31–43.
- Inandi T, Elci O, Ozturk A, Egri M, Polat A & Sahin T (2002) Risk factors for depression in postnatal first year, in eastern Turkey. *International Journal* of *Epidemiology* **31** (doi:10.1093/ije/ 31.6.1201), 1201–1207.
- Jones TL & Prinz RJ (2005) Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review* **25**, 341–363.
- Kapp M (1998) Mothers' perceptions of confidence with self-care and infant care. Journal of Perinatal Education 7, 17–25.
- Leahy-Warren P (2005) First-time mothers: social support and confidence in infant care. *Journal of Advanced Nursing* 50, 479–488.
- Leahy-Warren P & McCarthy G (2007) Postnatal depression: prevalence, mothers' perspectives and treatments. *Archives of Psychiatric Nursing* 21, 91–100.
- Logsdon M & Davis D (2003) Social and professional support for pregnant and parenting women. *MCN*, *American Journal of Maternal Child Nursing* 28, 371–376.
- Logsdon M & Davis D (2004) Paraprofessional support for pregnant & parenting women. MCN, American Journal of Maternal Child Nursing 29, 92–97.
- Logsdon C, Usui W, Birkimer J & McBride A (1996) The postpartum support questionnaire: reliability and validity. *Journal of Nursing Measurement* 4, 129–142.
- MacArthur C, Winter H, Bick D, Knowles H, Lilford R, Henderson C, Lancashire

R, Braunholtz D & Gee H (2002) Effects of redesigned community postnatal care on womens' health 4 months after birth: a cluster randomised controlled trial. *Lancet* 359, 378–385.

- Misri S, Kostaras X, Fox D & Kostaras D (2000) The impact of partner support in the treatment of postpartum depression. *Canadian Journal of Psychiatry* 45, 554–558.
- Nicolson P (1990) Understanding postnatal depression: a mother-centred approach. *Journal of Advanced Nursing* 15, 689– 695.
- O'Hara M & Swain A (1996) Rates and risk of postpartum depression-a meta-analysis. *International Review of Psychiatry* 8, 37–54.
- Polit D & Beck C (2004) Nursing Research Principles and Methods. Lippincott, London.
- Reece S (1992) The parent expectations survey. Clinical Nursing Research 1, 336–346.
- Schachman KA, Lee RK & Lederman RP (2004) Baby boot camp: facilitating

maternal role adaptation among military wives. *Nursing Research* **53**, 107–115.

- Scrandis DA (2005) Normalizing postpartum depressive symptoms with social support. *Journal of the American Psychiatric Nurses Association* 11, 223–230.
- Shaw E, Levitt C, Wong S, Kaczorowski J & Group TMUPR (2006) Systematic review of the literature on postpartum care: effectiveness of postpartum support to improve maternal parenting, mental health, quality of life and physical health. *Birth* 33, 210–220.
- Sinclair D & Murray D (1998) Effects of postnatal depression on children's adjustment to school. *British Journal of Psychiatry* **152**, 799–806.
- Surkan P, Peterson K, Hughes M & Gottlieb B (2006) The role of social networks and support in postpartum women's depression: a multiethnic urban sample. *Journal Maternal and Child Health Journal* 10 (4 DOI 10.1007/s10995-005-0056-9), 375–383.
- Tarkka M, Paunonen M & Laippala P (1999) Social support provided by

public health nurses and the coping of first time mothers with childcare. *Public Health Nursing* **16**, 114–119.

- Teti D & Gelfand D (1991) Behavioural competence among mothers of infants in the first year: the mediational role of self-efficacy. *Child Development* **65**, 918–929.
- Ugarriza D (2002) Postpartum depressed women's explanation of depression. *Journal of Nursing Scholarship* 34, 227–233.
- Wilkins C (2006) A qualitative study exploring the support needs of firsttime mothers on their journey towards intuitive parenting. *Midwifery* 22, 169– 180.
- Wisner K, Perel J, Hanusa B, Piontek C & Findling R (2004) Prevention of postpartum depression: a pilot randomised clinical trial. *American Journal of Psychiatry* 161, 1290–1292.
- World Health Organisation (2005) The World Health Report 2005: Make Every Mother and Child Count. World Health Organisation, Geneva.

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