Abstract

Purpose – Perinatal depression is common and increases the risk of adverse outcomes for both the mother and child. Despite regular contact with midwives and GPs during the perinatal period less than 50% of women with depression are identified and treated. A number of reasons for this have been proposed, however failure of health professionals to recognise the symptoms women present with may contribute. The aims of this paper are twofold; (1) to explore women's self-report symptoms of perinatal depression and (2) understand how the symptoms women present with might impact on identification.

Design/methodology/approach – Women were invited to post their experiences of perinatal depression on one of two on-line discussion forums over a nine month period. Data were analysed using a process of deductive thematic analysis informed by cognitive behavioural theory.

Findings – Women's symptoms were presented using five headings; triggers (for perinatal depression), thoughts; moods; physical reactions and behaviours. Women believed having a previous mental health problem contributed to their depression. Women's self-report symptoms included intrusive and violent thoughts; emotional responses including fear, worry and anger and somatic symptoms including insomnia and weight changes. Women also reported aggressive behaviour and social withdrawal as part of their depressive symptomatology.

Symptoms women present with may negatively impact on identification as they often over-lap with those of pregnancy; may not be included in the criteria for mental health assessment and may involve undesirable and socially unacceptable behaviour making disclosure difficult.

Research limitations/implications – A more inclusive understanding of women's self-report symptoms of perinatal depression is called for, if identification is to improve.

Originality/value This paper offers an analysis of women's self-report symptoms of depression, in the context of identification of perinatal mental health problems.

Keywords Perinatal depression, internet forums, depression symptoms, women's experience, identification

Paper type Research

Introduction

Perinatal depression (depression experienced during pregnancy and/or the postnatal period (up to 1 year after birth) is common (O'Keane and Marsh 2007) and can have serious adverse effects for the mother (Bansil et al, 2010), the unborn child (Kim et al, 2013, Grote et al, 2010) and for the child in later life (Bauer et al 2014, Glover, 2014, Graignic-Phillipe et al 2014). Despite these potential negative outcomes pregnancy related depression often goes unrecognised and untreated (Bauer et al 2014).

One of the biggest barriers in providing support to women is the lack of identification of perinatal mental health problems by health professionals (Khan 2015). Without identification, treatment and management cannot occur (Buist 2002). Those factors which affect identification of perinatal mental health problems are complex and can include lack of training and lack of confidence amongst those caring for women (Khan 2015, Byatt 2012, Jarrett 2014). Stigmatised attitudes and behaviour in relation to mental illness can also affect women's disclosure of symptoms and therefore impact on identification (Jarrett 2016, Khan 2015).

Other factors may also contribute to poor identification of perinatal depression. For example the symptoms women present with are often varied (Leahy-Warren 2009) making it difficult for health professionals to differentiate between a woman's normal adjustment to parenthood and those reactions which might indicate poor mental health (Foulkes 2011).

Background

Symptoms of perinatal depression

A range of symptoms related to perinatal depression, as reported by women, were identified from a review of the literature. The literature suggests that women do not always report changes in mood when depressed during pregnancy, but present with a more varied range of symptoms. In one study pregnant women reported physical pain, for example headache, backache and limb ache when depressed as well as breathing, swallowing and gastro-intestinal difficulties (Niemi et al 2013).

Other symptoms reported by women included emotional changes such as worry and "heavy heart" (Niemi et al 2013), crying, feeling down and panic (Furber et al 2009),

disorganised thoughts, difficulty making decisions (Staneva et al 2015) and behavioural changes including social withdrawal and changes in eating habits (Furber et al 2009). Women experienced symptoms of low self-esteem and feelings of entrapment, loss of control and loss of identity (Staneva et al 2015).

Perinatal depressive symptoms were often found to be specific to motherhood, for example women reported symptoms which focused on infant safety, infant well-being and care and performance as a mother. Other symptoms reported by women included feelings of loss, self-doubt, anger and inability to cope with changes, as well as feelings of discomfort, frustration and disappointment with weight gain (Highet et al 2014). These authors believed the clinical presentation of perinatal depressive symptoms was characteristic of expectant and new mothers and often did not comply with symptoms of depression in a non-perinatal population (Highet et al 2014).

Symptoms of perinatal depression are often believed to have social and cultural meanings particular to a women's locality. For example, Davies et al (2016) found that women living in South African townships used "idioms of distress" to describe symptoms of their depression. Women described their depression as the "sun setting on them" or as "suppression of the brain". Although particular to the local setting the meanings and symbols women used to describe depression were synonymous to those identified using international diagnostic criteria, suggesting legitimacy in the symptoms women presented with (Davies et al 2016). Similar observations have been made by other researchers who suggest that symptoms of perinatal depression may vary depending on the cultural context in which they are expressed (Habel et al 2015).

A review of the literature suggests that women report a range of physical, emotional and psychological symptoms when depressed during pregnancy and after giving birth. Women's experiences of symptoms are often particular to the perinatal period and may be shaped by cultural beliefs and expectations.

Identification of perinatal mental health problems

Perinatal mental health assessment is recommended (in both the UK and other countries) to identify women at risk. However despite these recommendations

perinatal mental disorders often go undetected with less than 50% of women identified in routine clinical settings (Bauer et al 2014).

Some of the problems associated with poor identification include lack of time, lack of information sharing between services and lack of awareness and poor understanding of perinatal mental health among health professionals (Bauer et al 2014). One common problem highlighted was the difficulty health professionals have in differentiating between a woman's normal adjustment to parenthood and reactions indicative of poor mental health (Foulkes 2011). Women themselves have also criticised GPs and midwives as being "out of their depth" in the assessment and care of perinatal mental health and of "normalising symptoms" leading to poor identification (Jarrett 2016).

Identification of perinatal mental health problems is an important part of care and the large number of women who remain undiagnosed and untreated is of concern. Although both self-report symptoms and problems with identification have been the focus of previous research, the contribution of self-report symptoms relative to problems of identification has not been previously explored. Therefore, this paper presents an analysis of women's self-report symptoms of depression in the context of identification of perinatal mental health problems.

The aims of this paper are therefore (1) to explore women's self-report symptoms of perinatal depression and (2) understand more fully how the symptoms women present with might impact on identification of perinatal depression.

The Study

The study presented is part of a larger project which explored the help seeking experiences of women with pregnancy related depression, the results of which are published elsewhere (Jarrett 2010, Jarrett 2016). Although the larger project focused on the care received from health professionals, women often "talked" about their wider experiences of perinatal depression. It was apparent that women presented with a variety of depressive symptoms which provided an opportunity to gain further insight into this important aspect of women's perinatal experience.

Internet Discussion Groups

Data were collected through solicited internet postings made by women to two internet discussion groups. The internet contains a large number of electronic discussion groups, many of which offer information and support for health related conditions. The main purpose of many electronic discussion groups is to enable discussion of problems, offer advice and provide social support. Individuals who participate in discussion groups post messages which are disseminated to all internet sites which carry the discussion group.

Ethics approval for the project

Approval to conduct the project was obtained from the Department of Health Sciences research governance committee, University of York, UK.

Data Collection

A "banner" inviting women to discuss their experience of pregnancy related depression was posted on two internet forums, PNI-UK.com and mothersvoice.org.uk, for a period of nine months. Both forums were supported by "not for profit" organisations which offer support and information to women and families affected by perinatal mental illness. These discussion forums were selected as they focused on providing support and information to women and families affected by perinatal mental illness. Internet discussion forums often contain varied and focused discussion of health related problems from those experiencing the problem therefore offer a good insight into individual experiences. The advantages of using internet discussion forums over more traditional methods, was the availability of cheap and easy access to the views of a wide range of women. Additional advantages were the reduced time needed for data collection and transcription of interviews was not required (Eysenbech and Till 2001).

The "banner" contained a hyperlink which when "clicked" directed women to a second web site containing a series of questions asking women about care they received from GPs and midwives when depressed. Women were asked to post their responses directly onto the discussion thread or send a private email to the site administrators at PNI-UK.com or mothersvoice.org.uk, which were then forwarded onto the research team. As discussed, women often reported other aspects of their depression experience, including depression symptoms.

A total of 26 women forwarded emails or made postings to two discussion boards. Postings from four women were excluded from the analysis as their content was not relevant to the study. From a total of 35 postings and e-mails, 24 were included in the analysis (12 postings from PNI-UK.com, six postings from mothersvoice.org.uk and six private e-mails from users of mothersvoice.org.uk and PNI.UK.com). The methods of data collection are explained more fully elsewhere (Jarrett 2010, Jarrett 2016).

Findings

Data Analysis

Data analysis was conducted using deductive thematic analysis (Braun and Clarke 2006) which employs a theoretical or "top down" approach driven by the researcher's area of interest and generally fits into a pre-existing coding frame. In the study presented here, the identified area of interest was women's self-report symptoms of perinatal depression. A theoretical model of depression, (cognitive behavioural theory) was identified which allowed for examination of the symptoms women presented with.

Cognitive Behavioural Model

Cognitive behavioural theory was used to inform data analysis as it is widely used in clinical practice (Greenberger and Padesky 1995) and is believed to have more validity over other models of depressive illness (Williams 1984).

Cognitive theory of depression comprises three main components (1) cognitive thoughts (negative view of the self, world and future), (2) systematic logical errors in thinking (selective abstraction) and (3) depressionogenic schemata (assumptions about the world which represent the way an individual might organise her past).

Cognitive behavioural theory suggests that it is the meaning that is attributed to a situation rather than the situation itself which affects a depressed individual's response, either through dysfunctional moods, behaviours or relationship interactions (Greenberger and Padesky 1995).

The cognitive behavioural model proposes that emotional problems or difficulties individuals might experience comprise five components, these are (1) triggers, leading to (2) thoughts, affecting (3) mood (emotion) leading to (4) physical

symptoms (somatic) and (5) behaviour (action) (Greenberger and Padesky 1995). These components formed the five thematic headings for analysis of women's self-report symptoms of perinatal depression.

Methods of analysis

Thematic analysis involves searching across the data set to find repeated patterns of meaning. Internet postings from women were downloaded onto a word file and "repeated and active reading" of the postings made to ensure familiarity with the data (Braun and Clarke 2006). Since coding of the data was theoretically driven, questions specific to the framework were asked of the data, during analysis. These included, for example, "what causes did women attribute to their depression?" and "what were the physical symptoms women experienced when depressed?" The entire data set was systematically worked through in this way, using questions related to the analytical framework and giving attention to each item of data.

Segments of data related to the questions were highlighted on the manuscript and given a code name. This resulted in a list of codes which were organised into broader over-arching themes. The final phase of analysis involved reviewing the coded extracts for relevance and validity and providing each theme with a meaningful definition (see table).

The findings are presented under the five thematic headings namely, triggers (for depression), thoughts, moods, physical symptoms and behaviour.

(TABLE ABOUT HERE)

1. Triggers for pregnancy related depression

Identification and insight into the causes of their depression was an important objective for many pregnant women. Previous depression, or long term psychiatric illness, were identified as an important cause of pregnancy related depression with eight women indicating that they had experienced some mental health disorder prior to pregnancy related depression.

For example, one woman wrote

Had bouts of depression in previous years

And another woman reported

Had depression all my life

A third woman wrote

...long term user of MHS Anxiety, depression and eating disorders. See psychiatrist regularly

Additionally, women were frightened that they would develop postnatal depression after delivery.

For example one woman reported:

I had pnd after the birth of my first [child] and was scared of getting it again. I got very down in my pregnancy

Other triggers

One woman believed her depression was caused by an unplanned pregnancy.

For example, she wrote

Baby not planned [want[ed] abortion, could not go through with it]

Two other women believed stopping their anti-depressant medication was a trigger for pregnancy related depression. Ten other women reported that a previous traumatic event had caused their depression and these included medical and obstetric trauma.

For example one woman reported

PTSD from previous emergency C Section

In summary, common triggers identified by women as contributing to pregnancy related depression included previous history of mental health problems and previous

traumatic event. However, women also reported unplanned pregnancy and stopping anti-depressant therapy as causing their depression.

2. Thoughts

Thoughts make an important contribution to depression as thoughts create reality negative thinking generally produces negative experiences. Negative thoughts
associated with depression can include disqualifying the positive, all or nothing
thinking, overgeneralisation, jumping to conclusions and labelling (Williams 1984).
The thoughts that women experienced could be classified into four categories. These
included negative, violent and intrusive thoughts. Women also reported derogatory
thoughts about themselves.

i. Negative thoughts about self

Depression is often linked to low self-esteem and negativity about the self (Hammen 1997) and this was supported by the words and language used by women. Four women used derogatory terms to describe themselves.

For example one woman wrote

"Feel like a loon"

Another woman wrote

"Sound like a whinge",

A third woman wrote

"I no [sic] I'm horrible",

And finally one woman wrote

"Sound pathetic"

Four women believed they did not have the right to express their feelings and continually apologised for their needs. In this way women undermined the distress they were experiencing.

For example one woman wrote

Sorry for being needy, sorry for going on,

Women often used language which undermined their distress

Sorry for waffling or making a big deal out of nothing

Or saw themselves as not worthy of help

I'm a nuisance; I feel I am an inconvenience. Didn't think anyone would respond to my posting

Other words and phrases women used to describe themselves included "Silly", "stupid", [a]"failure" and "not a good mum".

ii. Thoughts of violence

Women reported thoughts of violence to themselves and others. Six women reported thoughts of suicide or self-harm. Two of these women reported thoughts of suicide without harming their baby or disclosed they would have taken their own life if they had not been pregnant. Other women reported thoughts or images of harming others. One woman wrote

Suicidal/Felt could not go on/ If not pregnant would have attempted to take my own life. Thinking and feeling in ways I could not understand myself

Another woman wrote

Wanted to die

And a third woman wrote

Suicidal Urge to self-harm

iii. Thoughts of failure

Three women reported being unable or struggling to cope, with depressive symptoms.

One woman wrote

Not coping

While another women wrote

Can't cope feeling like this much longer

A third woman reported thoughts of not coping

Struggling to cope

iv. Intrusive thoughts

Five women disclosed recurrent intrusive or obsessive thoughts. Women often made negative predictions about their future or believed their situation would not improve. For example one woman wrote

Intrusive thoughts...thought I would hurt someone or do something to someone I love. Thought must be a bad person

In summary, women experienced thoughts of violence both towards themselves and others, as part of their depressive symptomology. Women also reported intrusive and unwanted thoughts which undermined their experience as expectant and new mothers.

3. Moods

Thoughts have a profound effect on emotions and moods. The moods experienced by women with perinatal depression included guilt, shame, fear, worry and anger. Many of the emotions reported by women related to their lives as pregnant women and new mothers.

i Fear, worry, anxiety

Anxiety is usually accompanied by a perception of danger, threat or vulnerability which may be physical, mental or social (Greenberger and Padesky 1995). Nine women reported symptoms of anxiety, fear and worry when experiencing mental health problems. Women were petrified of repeating their experience of a traumatic

birth or of developing postnatal depression. These fears were expressed by one woman, who wrote

Scared [get pnd (postnatal depression) after birth]

A second woman described being in "fear."

A third woman disclosed that she had "Severe anxiety throughout pregnancy".

Women were also concerned about the safety and welfare of their unborn baby and about the teratogenic effects of anti-depressant use during pregnancy. Women were frightened that they would not love their baby after giving birth, or that their baby would be removed from their care if they disclosed their symptoms.

One woman wrote:

Scared, Worried taking betablockers

And another woman

Scared [Dr would think would not love baby and take him away]

Other women worried excessively that they would develop a serious illness or that their symptoms would never go away. Women sometimes worried that they would lose control over their actions.

ii Anger

Anger has been recognized as a symptom of depression and often results from unfair treatment, from being hurt unnecessarily or from being prevented from obtaining an expected outcome or achievement. It is not the hurt or damage that leads to anger, but the violation of rules and expectations (Greenberger and Padesky 1995). Four women reported being angry or experiencing inexplicable and "unreasonable" behaviour.

One woman reported that she was "angry all the time", while another woman reported she was "angry" and was "taking it out on my partner".

iii Depression

Nine women reported depression which ranged from the occasional, for example coinciding with going on maternity leave, to moods which lasting throughout pregnancy. The intensity of depression was described by one woman as "horrific".

iv Guilt

When individuals violate those things that they believe are important or do not live up to their own personal standards they often feel guilty (Greenberger and Padesky 1995). Three women reported feeling guilty about their unhappiness with being pregnant or about some previous behaviour.

v Other moods

Five women referred to a particular situation or place when describing their depression, for example "feeling low", "hit(ting) rock bottom" "stuck in a rut", "feeling on edge" or "feeling more and more down." Two further women described feeling resentful, despairing and isolated as a result of being depressed.

In summary, although, many of the moods women experienced by women were typical of depressive symptomology in the general population, women in this study also experienced anger, fear and intrusive and unwanted thoughts.

4. Somatic or physical symptoms of depression

Physical or somatic symptoms play an important role in the diagnosis of depression and anxiety. Somatic symptoms comprise bodily sensations, for example indigestion, fatigue or loss of energy that are unpleasant or worrisome by the depressed individual and in many cases are the only symptoms patients speak of when presenting with depression (Kapfhammer 2006). Women often identified a relationship between a change in mood and somatic symptoms. For example one woman reported pain from symphysis pubis dysfunction (SPD), which she related to the tiredness, exhaustion and subsequent depressed mood.

Another woman talked about the changes in her weight and eating habits as a result of depression

Over eating, binge eating. No control over eating/over-weight and vomiting.

Two women reported that their sleep and their ability to relax had been affected and were indicators of their depression. Another woman reported general changes in energy levels as a symptom of depression

"No energy and no get up and go anymore"

General malaise and gastro-intestinal problems were also reported by two women. For example one woman reported

Sickness. Did not feel too good

While a second woman wrote

Felt sick. Diarrhoea (due to fear inside)

In summary, a number of women referred to the somatic and physical symptoms they experienced as part of their depression. These included changes in energy levels, changes in eating habits and changes in relaxation and sleep patterns.

5. Behaviour

Depressive symptoms often involve changes in behaviour which were problematic for themselves and others. For example, two women described experiencing violent, aggressive and uncontrollable outbursts directed at their partners.

One woman wrote:

Take it out on my partner. Pushing my partner away

While a second woman reported

Trying hard to fight feelings, won't go away until my relationship destroyed

Other behaviour reported by three women included social withdrawal. For example one woman wrote "finding it hard to leave the house", while another women's symptoms included "shut (ting) myself in my room".

One woman reported a lack of motivation which affected the care that she was able to provide for her other children.

This woman wrote

No energy - don't bother doing anything

Four women reported being tearful or crying as a result of pregnancy related depression. This was as a result of the moods they were experiencing, their feelings towards the pregnancy or from feeling overwhelmed or exhausted.

In summary, women with perinatal depression experience similar changes in behaviour to those in the general population, for example, aggression, irritability, social withdrawal and lack of motivation. However, women's behaviour as a result of their depressive symptomology was often best understood in the context of their role as new mothers and the behaviour they experienced often had an impact on their partners and children.

Discussion

Postings made by women to two internet forums, were analysed using a framework informed by cognitive behavioural theory. Cognitive behavioural theory suggests that the relationship between life events and emotional experiences is mediated through cognitive processes. The cognitive process comprises five elements, which are triggers, thoughts, moods, physical reactions and behaviour (Greenberger and Padesky 1995). Using an analytical framework based on cognitive behavioural theory, women's self-report symptoms of perinatal depression were examined.

Women reported a wide range of triggers and symptoms for depression. Pregnancy related depression was believed to be related to a previous mental health problem or traumatic life event, but also related to unplanned pregnancy and discontinuation of anti-depressant therapy. Women perceived being unable to cope with the demands of being a mother, and reported intrusive unwanted and violent thoughts. Fear, anxiety, depression and anger were often experienced by women as were somatic and physical symptoms. Additionally, women reported aggressive behaviour and social withdrawal when depressed during pregnancy.

The findings from this study suggest that self-report symptoms of perinatal depression are complex and may contribute to poor identification for a number of reasons. These include (1) the overlap between pregnancy related and depressive

symptoms; (2) the lack of inclusion of women's self-report symptoms in assessment tools; (3) social unacceptability of symptoms affecting disclosure by women and (4) poor understanding among health professionals of risk factors for perinatal depression.

These findings will now be discussed.

1. Overlap with symptoms of depression

Somatic symptoms as a result of physical changes in pregnancy often overlap with those of mild to moderate depression symptoms. Somatic symptoms include changes in sleep, energy and appetite, as reported by a number of women in this study. There has been considerable debate concerning the validity of somatic symptoms of pregnancy in the identification of perinatal depression (Nylen et al 2013, Matthey and Ross-Hamid 2011). While some researchers agree somatic symptoms may indicate depression at other times in a women's life, they disagree on their importance in the diagnosis of perinatal depression. Including somatic symptoms in the diagnostic criteria, they argue, increases prevalence rates with a potential detrimental impact on women due to over or misdiagnosis (Matthey and Ross Hamid 2011).

However, as testified in the current study, women often report gastro-intestinal problems, changes in energy and changes in eating habits as symptomatic of their depression. Some researchers are of the opinion that while all somatic symptoms may not be implicated in perinatal depression, some, such as fatigue and sleep deprivation, often are (Nylen 2013).

The role of somatic symptoms in pregnancy related depression is therefore unclear.

2. Symptoms not included in perinatal depression assessment

Many women in the current study undermined the distress they were experiencing and suggested their symptoms of depression were unworthy of being helped. Additionally, women used derogatory language to describe themselves. Negative beliefs about the self, the world and the future (self-schemas) are common during pregnancy related depression (Evans et al 2005). Negative self-belief often predicts a vulnerability to depression with those individuals experiencing high levels of negativity more likely to develop a depressive episode (Evans et al 2005).

Self-esteem, related to negative self-schemas, is area that has received little attention in the psychological care of pregnant and postpartum women. Self-esteem is described as the ideas an individual has about themselves which give them a sense of being a person (Rowe 2001). Good self-esteem emphasizes feelings of self-worth and buffers the negative effects of stressful life events. Pregnancy and new motherhood is a stressful time, often jeopardizing a women's sense of self-worth. Poor self-esteem has been identified as one of the strongest and most significant predictors of postpartum depression (Beck 2001).

Although an important indicator of perinatal depression rarely in clinical assessment are women asked about their self-worth or how they feel about themselves.

3. Socially undesirable and unacceptable symptoms

Anger is an under-recognised symptom of perinatal depression. Anger attacks have been described as a rapid onset of intense anger and autonomic arousal for example feeling out of control, verbal and physical attacks, panic and anxiety that occur as the result of a trivial provocation as described and identified by the individual (Mammen 1999). Anger is an important characteristic of perinatal mental health as it is often directed at the immediate family, for example the child or spouse, is associated with aggressive behaviour and causes women distress followed by guilt and regret.

Four of the women in the current study reported being angry or "angry all the time" or that they had "violent outbursts" or admitted "pushing their partner away" or "taking it out on their partner." A number of other women reported thoughts of violence against themselves (suicidal ideation) while another women reported she felt she was going to "hurt someone" or "do something to someone". Anger and the associated autonomic responses (verbal and physical attacks on others) are common with 60% of depressed pregnant women and new mothers affected (Mammen 1999).

Although expression of anger maybe essential for emotional well-being, (for example if unexpressed, anger can transfer into depression) (Simon and Lively 2010), it is important that anger in the perinatal period is identified and managed as attacks are usually directed at children and as a result may adversely affect their development. New mothers are particularly vulnerable as they often experience fatigue and

interrupted sleep resulting in increased levels of stress (Beck 2001). The situation is further complicated by cultural norms, which expect mothers to be happy and counter expressions of negative feelings, including anger. Anger is uncharacteristic of the idealised view of motherhood therefore making it difficult for women to disclose and therefore difficult for health professionals to identify.

A further self-report symptom which might be difficult to identify are intrusive thoughts. Women in the current study reported "obsessive thoughts" that were intrusive and unwanted. These included thoughts of harm against themselves and others. Intrusive thoughts of deliberate harm often occur in the context of high stress or low social support and although common in the perinatal period are distressing to women (Fairbrother and Woody 2008). Intrusive thoughts are energy draining in that they require maintenance in the suppression of thoughts and impact on a woman's ability to respond to her infant. As well as causing distress and shame to women they are of concern to professionals as thoughts of harm may be a precursor for child abuse or neglect (Veale et al 2009). Although the importance of identifying this particular symptom of perinatal mental health has been recognised (Stein and Lawrence 2013), currently there is a lack of guidelines for midwives and GPs on screening for intrusive thoughts or on their management.

4. Complex aetiology of perinatal depression

Identification of risk for perinatal depression is an important aspect of care as it increases the probability that a women's illness will be detected and preventative action taken (Beck 2001, Katon et al 2014). Women in the current study reported well known risk factors such as previous mental health problems or discontinuation of anti-depressant medication as causing their depression. However, women also attributed other causes for their depression. Consistent with other studies, (Beck 2001, Green 1990, Allen 1998, Beck 2011, Naiman et al 1991) post-traumatic stress disorder (PTSD) and traumatic birth experience along with unplanned pregnancy were reported by women as a precursor to depression.

Consistent with other research women in this study reported traumatic events in their personal lives as contributing to pregnancy related depression, for example, being threatened, having an abortion and moving home (Robertson et al 2004).

Risk factors involved in the onset of pregnancy related depression comprise a complex aetiology of social, obstetric and bio-medical factors however health professionals often fail to explore psychosocial risk factors in perinatal mental health assessment.

Limitations

A number of limitations were identified in the study.

Disadvantages of using internet postings

of enquiry is the lack of researcher control over the research environment. Researchers using internet generated data are unable to exert any control over the reactions of the participants to the research questions posed, the environmental conditions in which they were responding under or who the participants were (British Psychological Society Guidelines 2006). This was apparent in the current study where there was limited biographical information on women therefore the background of women who participated in the study and diversity of the sample was largely unknown. Additionally no clinical judgement or diagnosis was made regarding participants status as depressed therefore generalizability of the findings to the wider population of women with a clinical diagnosis of perinatal depression may be problematic. Finally, there was lack of opportunity to probe or explore further the

symptoms women discussed, as might have been possible in more traditional

One of the difficulties in using internet generated data over more traditional methods

Deductive thematic analysis

methods of enquiry.

Additional methodological issues concerned use of deductive thematic analysis. The coding and analysis of the data was focused on a very specific research question and it was felt using a deductive approach would provide a more detailed aspect of perinatal depressive symptomatology. The disadvantages of using this type of analysis are that it is "highly dependent on the theoretical sensitivity of the researcher" and there is a danger of "conceptual rigidity as the coding and analysis is heavily influenced by the theorists construction of meaning and style of communication or expression of the elements of the theory" (Boyatzis 1998, page 33). Therefore using a "top down" thematic analysis makes it difficult to discover "what the data might be saying" (Boyatzis 1998).

In defence of using a deductive approach, however, it is unlikely that a researcher would not have some theories in his or her mind at the onset of a research study therefore all analysis involves some degree of selection, editing and deployment to a broader argument (Braun and Clarke 2006). What is important is that decisions regarding data analysis are recognised and acknowledged by the researcher (Braun and Clarke 2006).

Implications for practice

This study has identified ways in which women's self-report symptoms of perinatal depression might impact on identification and a number of recommendations for practice can be made. These include a broader and more inclusive understanding of risk, based not only on bio-medical but also on psychosocial, obstetric, social and cultural factors, in understanding women's predisposition to perinatal depression.

Additionally, although self-esteem and self-worth can be easy assessed, rarely are pregnant women asked by GPs or midwives about how they feel about themselves. Poor self-esteem and negative self-schemas can be identified through identification of cognitive items which refer to an individual's belief of what others think or might think about them. Practitioners should be encouraged to ask women about their fear of rejection, of not being liked or of their expectation of criticism in order to identify negative self-schemas as indicative of perinatal depression.

Despite the lack of consensus concerning the role of somatic symptoms in perinatal depression women frequently report physical symptoms in relation to depression. Health professionals, therefore, should remain open and not dismiss out-of-hand women's complaints as normative pregnancy experiences in their assessment of perinatal depression.

Finally, disclosure of unhappiness or low mood may be difficult for women due to the pressure for women to be seen as happy with motherhood and pregnancy. Being angry or having intrusive thoughts of harming your child are uncharacteristic of the idealised view of motherhood therefore making it difficult for women to discuss with midwives and GPs. Health professionals, therefore, should be aware of the societal pressures and expectations of motherhood and the impact this might have on women's ability or desire to disclose symptoms.

Implications for research

This was a small internet based study adjunct to a larger project exploring women's experience of care when pregnant and depressed. Repeating the study using a larger and more diverse sample of women might increase the credibility and integrity of the findings presented here. Additionally, including GPs and midwives perspectives of women's depressive symptoms might enable a better understanding of where misunderstandings occur. This may subsequently improve the identification of perinatal depression.

Conclusion

Perinatal depression is common however is often poorly identified by health professionals. An analysis of women's self-report symptoms identified a number of diverse and varied indicators. The findings from this study suggest that depressive symptoms may be difficult to identify for a number of reasons. Self-report symptoms of perinatal depression often (1) overlap with symptoms of pregnancy; (2) are not included in perinatal assessment criteria; (3) include behaviour which is socially unacceptable for women; and (4) include risk factors which are poorly understood by health care professionals. This study suggests that a better understanding of the complexity of perinatal depression is needed, which includes a consideration of women's subjective and self-report symptoms, to ensure improvements in identification-can be made.

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