

DEVELOPMENT AND PILOTING OF THE PREGNANCY RELATED BELIEFS QUESTIONNAIRE (PRBQ)

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Abstract. Psychological measures have little sensitivity in the prediction of postnatal depression. We report the development of a questionnaire of beliefs about pregnancy and motherhood. Information from a literature review, staff working with women with postnatal depression and interviews with recently ill patients was used to develop a questionnaire called the PRBQ. The PRBQ was piloted on 42 pregnant women and achieved a Cronbach alpha of 0.85. Scores significantly correlated with scores on the Dysfunctional Attitude Scale (DAS), Beck Depression Inventory (BDI) and the Cognitive Adaptation to Stressful Events questionnaire (CASE), measuring adaptation to pregnancy. DAS and CASE scores did not correlate. The PRBQ and the CASE differentiated between those with ($n = 5$) and those without moderate depression. The PRBQ has been validated against established psychological measures. It may be a helpful tool contributing to the identification of women specifically at risk of postnatal depression. Further basic research is required.

Keywords: Postnatal depression, cognitive therapy, cognitive-behaviour therapy, questionnaire.

Introduction

Depression following childbirth accounts for a substantial proportion of the greater lifetime prevalence of depression in women. Actuarial prediction, for example by factors like unplanned pregnancy, not breast feeding, or unemployment in the family (Warner, Appleby, Whitton, & Faragher, 1997) does not lead to greater understanding of individual vulnerability. Hormonal shifts may be aetiologically important, but only in combination (O'Hara,

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Schlechte, Lewis, & Varner, 1991; Steiner, 1998) with factors such as peri-partum stress, isolation (Brugha et al., 1998) or vulnerabilities such as low self-esteem or lack of optimism (Fontaine & Jones, 1997). Antenatal cognitive vulnerability to PND measured by the Dysfunctional Attitude Scale (DAS; Weissman & Beck, 1978) accounted for only 4% of post-natal depressed mood variance (O'Hara, Rehm, & Campbell, 1982).

During pregnancy many women experience dysphoric mood states, which are antenatal predictors of PND (inter alia, O'Hara, Neunaber, & Zekoski, 1984). Affonso and Sheptak (1989) characterized the cognitive style of pregnancy as 'more aware of . . . what kind of person she really is'. This, plus ante-natal mood shift, should increase accessibility of dysfunctional cognitions. Thus, its lack of relevance to pregnancy may impair prediction of PND with the DAS.

There is evidence of thematic congruence between antenatal themes and those in the automatic thought content of PND. Affonso and Sheptak (1989) explored cognitive processes during pregnancy and identified a variety of themes that demonstrably reflect thematic content in PND research. Antenatal concern about the maternal role is congruent with the preoccupation of women with PND of living up to or doing better than the standards of care in their own childhood (Adcock, 1993). This may be associated with high expectations of natural ability to cope (Warner et al., 1997; Aiken, 2001). Antenatal perceptions of changing body image reflect an associated lowering of self-esteem in PND (inter alia, Gjerdingen & Chaloner, 1994). Antenatal expectations about the behaviours of a new-born clearly relate to the finding that women with PND demonstrate unattainable expectations of fulfilment or enjoyment of motherhood (Adcock, 1993). Antenatal relationship appraisal is reflected in relationship insecurity identified in PND (Affonso, Mayberry, Lovett, & Paul, 1994) and associated with trying to please others (Aiken, 2001).

We wished to develop a questionnaire to identify underlying beliefs associated with PND. This process, with pilot study data of the questionnaire, is reported. The questionnaire is compared with two measures used in depression research – the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and the DAS – and also with the CASE (Cognitive Adaptation to Stressful Events, Affonso et al., 1994) questionnaire, designed for pregnancy.

Development of the questionnaire

A Medline search from 1966–1997 was performed using 'depression' and 'postpartum' or 'postnatal' as key words. Prospective studies of PND predictors were reviewed, as well as papers on qualitative aspects of the disorder and studies of PND questionnaires. A book of interviews with women who had experienced PND (Aiken, 2001) was reviewed and two women who had a recent history of PND were interviewed to identify key cognitive themes associated with the onset and the worst point of their depression. Professionals working in three UK mother and baby psychiatric units endorsed the content as reflective of that seen in PND. The underlying meaning that would account for depression was developed into belief statements.

Pilot study method

One-hundred-and-fifty women attending an antenatal clinic at an inner city general practice were approached to take part in the pilot study. They were asked to complete the Pregnancy

Related Beliefs Questionnaire (PRBQ), the BDI, the DAS and CASE. The PRBQ comprises 54 items rated on a 1–7 scale from “totally agree” to “totally disagree”. Scores range from 54–378 and higher scores indicate higher levels of dysfunctional belief.

Results

Forty-two women (28%) between 6 and 40 weeks gestation (mean 26.9; $SD = 9.1$ weeks) returned a set of questionnaires. Their mean age was 28.4 years ($SD = 5.5$) and 25 were nulliparous. Thirteen subjects had a previous history of depression of whom three had a history of PND. None of the measures' total scores significantly deviated from a normal distribution. Scores on the PRBQ were normally distributed and ranged from 128–245 (mean 191.5, $SD = 29.6$). The PRBQ demonstrated adequate internal reliability (Cronbach alpha = 0.85). Validity was supported: construct validity – correlation with DAS ($r = 0.66$, $p < .001$); BDI ($r = 0.43$, $p < .01$); CASE ($r = 0.40$, $p = .01$); criterion validity – five women met the BDI criterion for moderate depression of 19 or more and had significantly higher mean PRBQ scores than the 37 who did not (219.1 vs. 187.8; $t = 2.23$, $p = .02$). Interestingly, the CASE and DAS scores did not correlate with each other ($r = 0.24$, $p = .13$).

Discussion

We report the development and piloting of a questionnaire concerning beliefs about motherhood. The small sample requires that pilot study findings be treated with caution. A response rate of nearly one-third is typical of questionnaire studies but may reflect the number of items in four questionnaires. Many potential respondents were nulliparous or at a very early stage of pregnancy and consequently may have found low face validity in a questionnaire focusing on an unfamiliar or distant situation. There was no formal assessment of item ambiguity or understandability among the sample and such defects may have contributed to the low response rate.

Construct and criterion validity results are reassuring. The advantage of the PRBQ over the CASE is that it identifies underlying beliefs, whilst its advantage over the DAS is that the PRBQ has greater salience in pregnancy and childbirth – the DAS and CASE scores were not correlated. The questionnaire could be refined with a larger sample, factor analysis and exclusion of redundant items. However, the questionnaire shows early promise. Cognitive processing factors have been shown to predict postpartum depression (Hipwell & Reynolds, 2001). The beliefs identified in this questionnaire may represent the structural component of this finding. If such beliefs can be identified among vulnerable women, it may be possible to target preventative interventions during pregnancy or in the early postnatal period. The PRBQ might be useful in biological, psychological or social PND research. It may be helpful in identifying beliefs to target for intervention in PND. Its mood-sensitivity suggests it may be used as a measuring tool to monitor progress.

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Appendix: Pregnancy Related Beliefs Questionnaire

Belief: Answer each statement according to the way you think most of the time	Agree		Disagree	
	Totally agree	Agree very much	Disagree slightly	Disagree very much
1. I should not have to ask for help with my baby				
2. I am as enthusiastic as I should be about my future role as a mother				
3. I can cope with my baby on my own				
4. If I do not keep up my appearance people will reject me				
5. If people criticize my baby it is not a criticism of me				
6. If my home does not look absolutely right I feel a failure				
7. If I do not feel maternal it means I am bad				
8. I do not have to be a perfect mother				
9. My independence is very important to me				
10. During the time following childbirth my partner has as much responsibility as I have to make our relationship work				
11. I expect my baby will be happy if I am around a lot				
12. If people only see me as a mother or wife I would feel diminished as a person				
13. I should be able to control how I feel				
14. I can't keep my baby safe from all sources of infection				
15. I should appreciate every single moment of the early part of my baby's life				
16. It is important for me to get back to my normal activities as soon as possible after the birth				
17. I have to do all it takes to make my baby completely happy				
18. People who cry for no reason are just being hysterical				
19. I feel frustrated if I am prevented from doing the things I want to do				
20. I should be able to bring on milk if I want to				
21. My wishes are no less important than those of other people in my life				

Appendix: Continued

Belief: Answer each statement according to the way you think most of the time	Totally agree	Agree very much	Agree slightly	Neutral	Disagree slightly	Disagree very much	Totally disagree
22. If I ask for help with mothering my baby it is <i>not</i> a sign that I am failing							
23. I should try hard to keep my figure during pregnancy							
24. I have a very clear picture in my mind of what it will be like to have a newborn baby							
25. Motherhood is an instinctive and natural state for a woman							
26. I have to be able to plan my day							
27. I expect that my life will be generally improved as a result of this pregnancy							
28. If my baby was unhappy it would be because of something I had not done							
29. Being a mother will be the most fulfilling experience I can ever have							
30. Sometimes it is necessary to put my own needs before those of my baby							
31. My immediate family should be the only ones I need							
32. It is selfish to get upset in front of my family							
33. I expect to just be able to see more of people as a result of this pregnancy							
34. I should be able to just cope like everyone else does							
35. I expect my relationship with my partner might become very different after this pregnancy							
36. It is important for me to make sure I look my best							
37. People know what kind of person I am by the activities I do							
38. If my baby is unhappy I will feel that it is my fault							
39. If someone important pays me less attention after the birth it is because the baby is more important to them than I							

Appendix: Continued

Belief: Answer each statement according to the way you think most of the time	Totally agree	Agree very much	Agree slightly	Neutral	Disagree slightly	Disagree very much	Totally disagree
40. If someone else's baby is happier than mine it is probably because I am an inadequate mother							
41. If I am unable to satisfy my baby I am a bad mother							
42. I have got to do regular exercise after the birth to get my figure back							
43. I welcome the changes in my body, even those like odours (not including any illnesses)							
44. If I do not have lots of interesting news it shows I am a dull person							
45. I should be cheerful and entertaining for people when they come to visit							
46. My sense of worth entirely depends on my achievement at work							
47. If I do not feel completely emotionally attached to my baby I should worry about what this means							
48. Even if I really let myself go my partner would not leave me or have an affair							
49. If my baby loves me back (s)he will play with me better than anyone else							
50. Feeling continually tired is an unpleasant experience I could not bear							
51. If my baby is able to rule my activities it is because I am too weak							
52. If I can't look after my baby properly it shows I am useless							
53. After my baby is born I will never be lonely in my life again							
54. Motherhood is a time when I should be calm and serene							