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Postnatal Mental Health and Parenting: The Importance of Parental Anger

Parfitt Y & Ayers S. (2012). *Infant Mental Health Journal*, 33(4), 400-410.

The birth of a child can be a challenging experience for first time parents and is accompanied by both physical and emotional demands. The importance of forming a satisfactory and intimate early relationship between the mother and her baby has been acknowledged for several decades (e.g. Bowlby, 1969). Research shows that the quality of the early parent baby relationship can have lasting effects on a child's development, including socio-emotional adaptation (Hay & Pawlby, 2003), cognitive development (Murray et.al., 1996), language development (Trevvarthen, 2001), functional and biological development of the brain (Schoore, 2001), child psychopathology (Skovgaard et al., 2008), and the child's attachment status (e.g. Tomlinson et al., 2005). Unwanted pregnancy and poor pre-partum bonding have also been shown to have a negative effect on the parent baby relationship (e.g. Brockington et al., 2006; Siddiqui & Hagglof, 2000).

Models of parenting (e.g. Belsky, 1984) state that there are many factors that affect the parent baby relationship, including parental factors, characteristics of the baby and contextual factors. Important parental factors include sensitivity to the infant's state, mental representations of the baby, and mental health, all of which have been shown to influence the parent baby relationship. For example, women's representations of their babies during pregnancy have been associated with the infant's attachment classification at 18 months (Benoit, Parker & Zeanah, 1997). A recent qualitative study using both interviews and observations (Dollberg, Feldman & Keren, 2010) found significant associations between the quality of maternal representations and relational behaviour in mother-child dyads from an infant mental health clinic and the community. Mothers attending the infant mental health clinic had narratives that were less joyful, less coherent and more hostile, and their relational behaviours showed lower sensitivity, higher intrusiveness and less supportiveness of their child compared to community dyads.

Maternal sensitivity has also been recognised as a key factor in the quality of the mother baby relationship and attachment security (de Wolff & van Ijzendoorn, 1997). Fonagy et al. (2002) argue that this sensitivity is particularly related to parental attachment patterns, where the parents' own adverse experiences during their childhood may lead to distorted representations of their baby, with a reduced ability to view the baby as an intentional being. This is often referred to as mind mindedness and there is some evidence that it has a stronger association with the child's subsequent attachment status, theory of mind and language development (Meins et al., 2003) than factors such as social support and postnatal depression.

Parental psychopathology may affect parents' perceptions, sensitivity and ability to interpret and respond to their baby's signals. Brockington (2004) reported that between 10% and 25% of mothers with postpartum psychiatric disorders also presented with an impaired relationship with their baby. Another study showed that 29% of mothers in a clinical sample had various degrees of pathological anger, with severe anger in 8 % (Brockington, Aucamp & Fraser, 2006). There is evidence that postnatal depression in particular is associated with deficiencies in the parent baby relationship, such as impaired communication with less synchrony, reciprocity and decreased emotional involvement and responsiveness from the mother (Murray et al., 1996) and also less smiling and corporal interactions (Righetti-Veltma, 2002). Anxiety is also likely to influence the parent baby relationship. A recent review concluded there are strong adverse effects of postnatal maternal anxiety on children with evidence of disrupted attachment, somatic problems (e.g. colic) and behavioural and emotional problems (Glasheen, Richardson & Fabio, 2010). Traumatic experiences at birth may also influence the parent-baby relationship. For example, both quantitative (Parfitt & Ayers, 2009) and qualitative studies (Ayers, Eagle & Waring, 2006, Ballard, Brockington & Stanley, 1995; Nicholls & Ayers, 2007) show evidence of disturbed parent baby relationship in parents suffering from PTSD following childbirth.

To date, it is not clear what mechanisms underlie the effect of parental psychopathology on the parent baby relationship but one possible factor is hostility (e.g. Wisner, Peindl, Gigliotti & Hanusa, 1999). Pregnant and postpartum women are more likely to develop anger problems due to sleep deprivation, marital discord, stress and fatigue (Cummings & Davies, 1994). Anger has also been shown to be associated with depression and anxiety and to mediate the effects of depression and anxiety on parent to child aggression (Mammen, Pilkonis & Kolko, 2000). Brockington, Fraser and Wilson (2006) emphasise the importance of distinguishing between aggressive impulses in the context of anger (pathological anger) and obsessions of child harm or infanticide, which are a different phenomena.

Currently, the majority of research on the impact of postnatal psychopathology has examined the mother baby relationship, although bonding and attachment difficulties can also exist between the father and baby (e.g. Edhborg, Matthiesen, Lundh & Widstrom, 2005). Recent meta-analyses of parenting behaviours in fathers (Wilson & Durbin, 2010) and mothers (Lovejoy, Graczyk, O'Hare & Neuman, 2000) found associations between parental depression and the presence of negative parent behaviours, such as negative affect, hostile or coercive behaviour.

The parent baby relationship is a reciprocal process where the baby also plays an active part (Sameroff, McDonough & Rosenblum, 2004). For example, early infant characteristics such as the intensity of response to stimulation (Zhu et al., 2007), sleeping disturbances and excessive crying (Hofacker & Papousek, 1998) have been associated with a poorer mother-baby relationship. However, many studies assessing infant characteristics and temperament rely on parents' subjective perceptions of their baby. For example, a study found that depressed mothers reported more excessive crying irrespective of the child's characteristics (Milgrom, Westley & McCloud, 1995). This indicates that these reports may

be more related to negative attributions and internal perceptions of the mother rather than infant behaviour.

Finally, contextual sources, particularly family relationships and social support, may affect the parent baby relationship. Family systems perspectives (e.g. Erel & Burman, 1995, Cowan & Cowen, 2002; Fivaz- Depeursinge et al., 2005; Bell & Goulet, 2007) acknowledge that fathers play a vital role in parenting with dyadic and triadic interaction with their baby and partner. For example, the quality of the couple's relationship itself may influence the way each partner interacts with the baby (e.g. Barnett, Deng, Mills-Koonce, Willoughby & Cox, 2008; Cummings & Davies, 2002; Erel & Burman, 1995; McHale, Kuersten-Hogan, Rao, 2004; Owen & Cox, 1997; Krishnakumar & Buehler, 2000), with a high marital quality being linked to sensitive parenting behaviours and vice versa. Marital conflict may affect the mothers and fathers interaction with their baby in different ways, with fathers being less affectionate and sensitive (Owen & Cox, 1997) whilst mothers may compensate for dysfunctional marital relationship by getting more involved (Braungart-Rieker, Courtney & Garwood, 1999). On the contrary, positive effects of the father's involvement in childcare activities have been found with an enhancement of the mother's sensitivity (Feldman, 2000). More recent evidence also suggests that there is an interdependence of parenting between mothers and fathers, with contagion of negative, intrusive parenting across the parent-baby dyads (Barnett et al., 2008) and similarly contagion of positive, sensitive parenting across the mother-child and father-child dyads (Ryan, Martin, & Brooks-Gunn, 2006).

In summary, evidence shows that the early parent-baby relationship is influenced by a number of interacting parental, baby and relationship factors with psychopathology being a main contributing risk factor for parent baby relationship problems. However, the mechanisms of this are not clear. Distorted negative internal representations of the baby and parental anger are all possible contributing mechanisms.

The present study therefore aimed to examine mothers' and fathers' subjective accounts of their baby, themselves as parents, and their relationship with their baby and whether this differs for those with postnatal mental health problems. This was done using semi-structured clinical interviews to identify postnatal mental health disorders (including parental anger) and obtaining detailed narratives of men and women's experiences of parenting, their representations of their baby, and their perceptions of their relationship with the baby.

Method

Design

A study of men and women's qualitative experiences of their baby and parenting 5.4 months ($SD = 1.05$) after birth and whether this experience differed between parents with common mental health problems (anxiety, depression or PTSD; $n = 17$) or parental anger ($n = 23$) and those without. Semi-structured clinical interviews were used to measure parental mental health, anger issues, and experiences of parenting.

Participants

Participants were a subsample recruited from The Sussex Journey to Parenthood Study (UK), a longitudinal study of the transition to parenthood from pregnancy to the postpartum. Inclusion criteria for the original study were that couples were expecting their first baby, were cohabiting, fluent in English, and over 18 years old. Three months after birth 48 families were eligible, of which 40 couples and another 5 mothers agreed to take part. The majority of the participants (82%) were Caucasian and 75 % had undergone higher education (diploma and beyond). At the time of the interview, the babies were between 4 and 8 months old ($M = 5.41$ months, $SD = 1.05$). The length of the couple's relationship ranged from 12 to 308 months ($M = 75.21$ months, $SD = 54.48$). Women ($n = 45$) were aged between 18 and 46 years ($M = 32.63$ years, $SD = 5.70$) and men ($n = 40$) were aged between 26 and 44 years (M

= 33.58, $SD = 7.33$). Out of the 45 babies, nineteen (42%) were delivered by unassisted vaginal delivery; ten (22%) were delivered by assisted vaginal delivery, whilst five (11%) were delivered by elective caesarean section and ten (22%) by emergency caesarean section.

Measures

Mental health and qualitative experiences of parenting were measured using the Birmingham Interview of Maternal Mental Health (BIMMH; 5th edition, Brockington, 2006). This is a semi structured clinical interview that covers pre and postnatal mental health disorders, as well as the social and psychological experiences of pregnancy, birth and becoming a parent. It consists of 120 compulsory probes and 175 ratings, divided into 8 sections and takes an average of 1 hour 45 minutes to complete. The interview has been used to validate and calibrate the Postpartum Bonding Questionnaire (Brockington et al., 2001). Postnatal mental health disorders measured were anxiety, depression (none, mild, moderate and severe; rated 0-3), PTSD (none, some evidence and severe; rated 0-2), and parent's angry responses towards the baby (none, mild, strong, difficulty keeping control, loss of control resulting in angry verbal outbursts, and loss of control resulting in physical abuse; rated 0-5). A cut off of 2 or more was used to indicate mental health disorder (moderate or severe anxiety/depression; severe PTSD; strong angry response with verbal or physical loss of control). The sample was grouped on the basis of this into (i) Parental anger/no anger and (ii) other postnatal mental health disorder/no disorder.

The section of the BIMMH that examines the parent-baby relationship (section 7) was used for qualitative thematic analysis. This section has 17 compulsory probes with questions that ask about the baby's characteristics and development as well as the parents' feelings for and responses to their baby. This includes questions such as: "Please tell me what your baby is like", "How did your feelings for your baby develop after delivery?" and "How do you feel when your baby cries or wakes you at night?"

Procedure

Ethical approval was obtained from the NHS Local Research Ethics Committee and the University Research Governance Committee. Participants in the original longitudinal study who took part in the final postpartum follow-up at three months were sent a letter and information sheet describing this interview study. Participants were offered an incentive to take part in the interview (baby shop vouchers). Those who agreed to take part were contacted by phone or email to arrange an interview date. Interviews were done by an experienced healthcare practitioner in participants' homes and conducted separately with the male and female partner. Written informed consent was obtained before the start of the interview and confidentiality, anonymity and the right to withdraw at any time was assured. After the interview participants were debriefed. Interviews were audio recorded. The section of the interview on qualitative experiences of parenting was transcribed verbatim and transcriptions checked against the tape.

Analysis

Qualitative analysis was carried out using NVivo 8 software. Initially, 10 interview transcripts were read repeatedly and initial codes extracted. Codes were then examined for frequency and common themes to create a final coding schedule, according to inductive thematic analysis (Boyatzis, 1998). Themes and coding schedule were discussed by the authors to ensure they were representative of parents' experiences. Once the coding schedule was agreed between the authors, all transcripts were then analysed and coded using this coding schedule. Additionally an independent researcher coded approximately 10% of transcripts and quotes. The inter-rater reliability was high (percentage agreement = 94%).

Quantitative analysis was carried out using chi-square to examine differences in the frequency of themes reported by parents with and without mental health disorders or parental anger. Effect sizes were calculated using Phi (ϕ).

Results

This section first reports the prevalence of mental health disorders and parental anger in the sample; then qualitative experiences of parents are reported together with quantitative differences between parents with and without mental health disorders or parental anger so that differences can be illustrated with qualitative information.

Postnatal mental health in men and women

Table 2 shows the proportion of men and women with mental health disorder or parental anger. In the total sample, 23 participants (27 %) (13 men and 10 women) reported strong levels of anger towards their infant. Seventeen participants (20%) had moderate or severe mental health problems. There was little concordance within couples in mental health issues, but in four couples both partners reported anger.

Thematic analysis and differences between parents with and without mental health problems or parental anger

Thematic analysis yielded information about (i) the baby, (ii) parents and (iii) the parent-baby relationship. Themes and sub themes for each of these sections are shown in Table 3 along with whether the frequency of these themes differed between parents with and without mental health problems or parental anger. Analyses found very few significant differences between men and women in the frequency of themes. Information for men and women is therefore not given in Table 3 but differences that occurred are mentioned below where themes are given in more detail and illustrated with quotations. Participants are listed by a couple identifier (a letter and a number) and whether it is the mother or father speaking. Pseudonyms have been used throughout.

(i) Baby

Baby characteristics. Almost all parents described their baby using *positive characteristics*. “She’s lovely. She’s very happy, very smiley, very bubbly. She loves music.

She's just, she's just a lot of fun to be with really" (F12 mother). Parents experiencing anger towards their baby used more *negative character references* compared to parents who did not experience anger. "Well first of all I thought he was a bit of a mong. As in, he seemed a bit too passive for a baby as far as I was concerned. He seemed to me a little bit, I don't know, I was wondering about his mental state" (F10 father).

Referrals to *social characteristics* of the baby were common, especially among the mothers. "She is very smiley and engaged, you know she really engages with people" (F16 mother). Many parents referred to characteristics, both physical and temperamental, that *resembled themselves or their partner*. "The baby is just like me, it is like a version of me. She's got lots like, she has got my chin, the eyebrows, she looks a lot like me, so I kind of like that" (Y44 father).

Behaviours and needs. *Crying* was mentioned by more than two thirds of the parents and was the most frequently mentioned behaviour. Excessive crying in the early months was specifically referred to as delaying positive feelings for the baby and evoking feelings of distress in parents. "But the love thing grew as she stopped crying. She cried lots and lots when she was first born. She never seemed to stop for about two months, she cried, everywhere she just cried, and that was quite distressing" (P5 mother).

Parents with high levels of anger commented more frequently on their baby's difficulty *sleeping*. "It is the bloody sleep. He is crying all night" (P9 mother). Significantly more mothers than fathers mentioned *feeding* behaviours. The success or failure of breast-feeding appeared to be of great importance to mothers. "Thanks to breast feeding yeah, that's always the ultimate answer I'm afraid to say, well I'm not afraid to say, it seems to be that it's almost like a reset button with him it just calms him down" (A2 mother).

Development. Almost all parents primarily referred to their babies' *motor development*, such as rolling, sitting, crawling, standing or grabbing things. "Well, he sits

down, he loves standing so obviously you need to help him but he loves being on his two feet“ (A2 father). Nearly all parents commented on their baby’s *social development*, viewing the baby’s smile as a pivotal event, a turning point, when the baby started to give something back in the interaction. “It was when he started smiling at me and when he started laughing and he became a little person at that point, whereas before he was pretty much an eating, crying, pooping machine” (F4 father).

(ii) Parent

Emotions. Parents made frequent references to strong emotional states in the early months after the birth of their baby. Eleven sub-themes consisting of mainly negative but some positive emotions (e.g. pride and joy) were identified (see Table 3). Negative emotions such as *anger*, *disappointment* and *guilt* were significantly more prevalent in those with parental anger. “Angry when I’ve given her lots of care and she keeps fidgeting and not happy with me; and yet as soon as she’s in her mother’s arms, she’s completely happy. Bit angry about that, I am angry about that, yeah” (F44 father). “I was disappointed in myself the way that I was coping, in those early days...I just felt so guilty that I was that angry with him and it wasn’t his fault” (F4 father).

Parents suffering from postnatal mental health problems also reported feelings of anxiety, guilt and depression more frequently: “I was a bit scared to be on my own with her. I still don’t like bathing her, I still worry that I’ll drown her in the bath and I still get quite anxious so if I bath her on my own, it’s very quick, no fun, no play”(F13 mother). “I would dread him like, you know, it was absolute fear of going to bed. Fear of the night, fear of his crying, fear of not knowing what to do, so much fear and anxiety”(P9 mother).

Significantly more men commented on *feelings of frustration*, whilst significantly more women experienced positive feelings of *calm and control*. “A little frustrated. It’s difficult, if there didn’t seem to be anything wrong with him, it was more frustrating” (F40

father). “It’s made me a lot calmer. I don’t know whether that’s because I don’t have to worry about work, but I don’t get stressed about a lot of things anymore” (F30 mother).

Impulse and control. More than half of all parents mentioned acute *impulsive thoughts*. Significantly more people in the anger group commented on impulses to harm their baby as a response to their baby’s cries or being woken up at night. This response was also more frequent amongst parents with postnatal mental health issues. “I’ve just wanted to throw him, at a wall, out the window. That would be the worst thing that I’ve felt” (F63 mother). “I could kill. Like that you could kill. It was really that acute. It was quite murderous, and then the guilt that follows that is just humongous” (Y27 mother). Also, reports of actual loss of control and aggressive behaviours, such as shouting at or rough handling of their baby were significantly more frequent amongst parents in the anger group. “Because I was feeling really very stressed and I involuntarily hurt her, because I was probably grabbing her very, very tight and probably I hurt her ear” (Y44 father).

Coping Strategies. It seemed that the *support from their partner*, both practical and emotional and sharing the responsibilities, was seen as crucial in coping with the baby in the early days. “We know when one of us is really tired, the other one just knows when to, you know, let the other one pick up just because it’s better for everyone” (F12 mother).

Parents in the anger group mentioned the *lack of support from their partner or partner conflict* significantly more often than parents not suffering from anger. “We had this argument and fights. I had to realise that I had to stop being so bossy” (Y44 mother). The support from *other people*, such as parents, friends or professionals, were mentioned significantly more often by women. Comments included anything from practical support to listening. “I just wanted to lock myself away and I rang my mum and she said to me, “oh, perhaps he has got some trapped wind”, and I went to get some stuff and it was, that’s exactly what it was” (Y31 mother). Several fathers felt left out by professionals in terms of support.

“I just think, you know there’s a lot of support for women but there’s not a lot of support for men, I mean if someone had just said to me 'not every fella is delighted with the situation’”(A4 father). Parents also seemed to use *comparisons with others* to normalise, justify and contextualise their own reactions and experiences. The comparisons included downward comparisons (i.e. others worse than themselves), which appeared to make the parent feel better about themselves. “Then again, my best friend when she had her first baby, I remember that she had a terrible time” (P2 mother).

On the contrary, some parents used upward comparisons (e.g. others better than themselves), which seemed to undermine their own feelings of self worth and parental adequacy. Parents with anger used such comparative comments significantly more frequently than parents without anger. “Only just that I didn’t think that I was normal and I felt really concerned about the fact that I should have been feeling really delighted about the pregnancy and afterwards I guess I was a little concerned and depressed about it and I couldn't even admit that, even to friends” (A4 father). Parents also appeared to use comparison with other babies to justify the behaviour of their own baby. Downward comparisons were most common. “She’s fantastic and I look at other baby’s and think, oh they’re cute in a way, but she’s gorgeous” (C3 father). Again, upward comparisons were more common in parents with anger issues. “As a comparison against our friend’s babies I think it would be nice if he did sort of giggle and laugh, we just want him to be happy, but he doesn’t laugh as much as other people’s babies” (F63 father).

Self-reflective comments or analogies were used by more than two thirds of parents when talking about their experiences, as a way of making sense of their own feelings or reactions. “I don’t really know if it, what I felt was, was actually me feeling angry at my mother. Yes, where my sort of fantasy sadistic parenting or whatever, I mean she was quite sadistic in certain ways. And I think that I made quite a clear choice in that first week that I

wasn't going to [be like her]" (P6 mother). Also these reflections were significantly more common in the anger group.

Parenthood general. More than half of the parents specifically mentioned *positive experiences* of parenting such as enjoyment, fulfilment, reward and feeling fortunate. "Just the loving, when they love you back; when they need you. Especially when you are breast-feeding, when they cuddle you and it's, it's very, very, very, what's the word, rewarding" (Y3 mother). However, some parents also gave *negative* comments, especially if they experienced anger with the baby or suffered from postnatal mental health problems, such as finding certain practical aspects difficult or not fulfilling their parental role in the way they hoped for. "The most tricky thing is the way it changes the pace of your life and she has to have sleeps otherwise she is no good. So it does mean that you, your day will be carved up so there are only like little, very small segments that you can do something with" (P2 mother).

Half of all parents thought that the parenthood was *better than expected*. "It's, exceeded the expectations, better. Everything and more that I expected it to be" (F44 father). A highly significant number of parents with anger issues felt that their experience of parenthood was *worse than expected*. "If you find yourself in a situation where you're swearing with your kid you know, you are holding your baby and you are swearing, or you are holding your baby or you are changing your baby or whatever and you are having violent thoughts even though it is just a flash, even though it is just a kind of cartoon violence, that is not how it supposed to be" (P4 father). The majority of parents commented on changes in themselves. These were mainly *positive changes* with growing maturity and sense of purpose. "I think I feel more confident about my place in the world as a father. You know, more, a bit more of a sense of purpose I guess" (P8 father).

Participants' appraisals of their *self-efficacy* as parents were both positive and negative "I do think that I'm a really good mum - I give her everything that she needs" (F1

mother). *Negative appraisals* were significantly more common in parents with mental health and anger issues who made negative comments about their own abilities. “But you just don’t want to fail. It’s pathetic if I have to hand her back to Karen. Couldn’t do anything with her. Feel a bit useless” (F11 father).

(iii) Parent and Baby

Parent-baby relationship. The majority of all parents talked about their enjoyment of their *social interaction* with their baby, like singing, talking or playing. Evidence of parents trying to *interpret and understand their baby’s* emotions (mind mindedness) and behaviours was seen in three quarters of all parents. It seemed that reasoning, such as, “she is not doing it on purpose” helped many of them to control their anger. “Well, I just think that it is not her fault. You know, nothing she is doing wrong or nothing she is doing on purpose” (P5 mother). In contrast, there were also cases where parents showed signs of not understanding their baby or being insensitive. Significantly more parents with anger issues and postnatal mental health issues made such comments. “And you know she won’t drink the milk off me! I give her the milk bottle when she’s hungry. My wife comes in, does the same thing, and the baby will drink the milk. That’s beginning to annoy me. What’s, is this baby trying to play me up or something, on purpose” (F44 father).

When parents were asked about how their feelings for their baby developed after birth, approximately 40% of parents described a moment of instantly falling in love or loving their baby even before the birth. “I think it was instant love, really, I really realise now this is the most special stuff on earth, I don’t care about anything else” (A2 father). The remaining majority of parents admitted that it took longer for love to develop and to having ambivalent feelings towards their baby from the start, a mixture of love, guilt, unfamiliarity, fear and responsibility. This delayed feeling of love was significantly more frequent among the group of parents with anger symptoms. “I was a bit shocked that I didn’t love her the first day. What

you call, attraction love, the actual physical attraction of the baby, that I didn't fall in love with the physical attraction of the baby the first day, which was wrong of me, I felt guilty for that" (F44 father). Some parents specifically mentioned the *presence of a bond*. "I was very tearful but in a happy way. Relief, that she was perfectly healthy. There was a definite bond that developed very quickly" (F7 mother). Comments on the *absence of a bond* were significantly more frequent amongst parents with mental health problems. "It did take a long time and I did sort of sit there and sort of think, you know, I don't feel the bond. I was sort of worried you know. I was sort of a bit concerned thinking maybe I should have done skin-to-skin bonding straight away and stuff like that" (F4 father). Most parents discussed how they feel when they are separated from their baby. The majority commented on *missing their baby* and not wanting to be separated even for a short period. A small number of parents, mainly women expressed feelings of being trapped and limited by their baby. "Why do I feel so stressed now, like as if I was in a cage or like, you know, in a way without exit" (Y44 mother). Parents frequently mentioned *intimate physical contact* like kissing and cuddling as a source of enjoyment. Mothers made such comments significantly more frequently than fathers. "And I love in the mornings when we'll get her up, and I just like it that the three of us are all sort of laying there, all cuddled up, I think it seems very secure and cosy, you know"(J7 mother).

Many comments suggested that *socialising with others* helped parents cope by feeling less isolated. "It was just knowing for those two hours that you could relax a bit, and it wasn't you on your own, it was you with other people that you've met" (F56 mother). *Physical play* activities such as throwing and swinging were mentioned by more than half of all the parents, but significantly more often by the anger group. "Swinging him around, I was doing that this morning and he was really laughing. He loves bouncing, that always makes him laugh" (F56 mother).

Discussion

This study provides details of mothers' and fathers' subjective accounts of their baby, themselves as parents and their relationship with their baby. Results suggest the presence of postnatal mental health and anger issues negatively influences aspects of all these factors, which may have negative implications on their interaction with their baby. These findings are discussed in turn below.

Perceptions of the baby

The results indicate that most parents in this study provided a positive, rich and coherent description of their babies' characteristics and personality, which may indicate that their perceptions were primarily healthy and balanced (Zeanah & Benoit, 1995; Main, Kaplan & Cassidy, 1985). The majority of parents commented on their baby's motor and social development, with the baby's ability to smile appearing to give the parents important feedback, helping them to see the baby as a "person". Recent research (Strathearn, Fonagy & Montague, 2008) confirms the crucial importance of the infant's smile in uniquely activating reward centres in the parents' brains, giving parents a "natural high". The group of parents suffering from anger used a significantly higher number of negative references when talking about their baby compared to those without anger. This is consistent with Dollberg et al.'s study (2010) where mothers whose narratives were less joyful, more hostile and less coherent also showed lower sensitivity and more hostility in their behaviour towards their baby.

Experiences of parenting

Most of the sample commented that parenting was accompanied by heightened emotional states – in particular negative emotions, which were described more often than positive emotions. This is consistent with previous qualitative evidence of mothers' birth experiences. For example, Ayers (2007) found that negative emotions, such as feelings of anxiety, irritability, and frustration were predominant in women's descriptions of giving birth.

As would be expected, in the current sample, negative emotions were especially prevalent amongst parents with anger or postnatal mental health issues, both of whom reported more feelings of anxiety, guilt and depression. This probably represents the nature of affective disorders where the presence of negative emotions is part of the diagnostic criteria.

Similarly, both impulses and loss of control were mentioned significantly more frequently amongst parents with anger or mental health issues. This higher occurrence of impulsive thoughts and loss of control in parents with anger and/or mental health problems is consistent with previous research (Cummings & Davies, 1994; Mammen, Kolko & Pilkonis, 2002). Parents with anger issues also specifically commented on the lack of support from their partner more often. This finding ties in with Matthey, McGregor and Ha's (2008) view of the importance of the affectional support from the partner in preventing distress in new parents.

Although it seemed like most parents used spontaneous social comparison with others as a coping strategy to normalise their experiences, parents with anger problems were found to use negative upward comparisons more often. Negative appraisals of parenting ability were also more common in parents suffering from anger or mental health problems. Previous research has indeed found that high parenting self efficacy may act as a buffer for both parental depression, stress and relationship experiences and is also associated with positive child outcomes (Teti & Gefland, 1991). More fathers than mothers used negative appraisals of themselves as parents, which is also consistent with previous research of first time parents (Hudson, Elek & Fleck, 2001).

The parent-baby relationship

Three quarters of all parents used comments, which gave evidence of mind mindedness. However, amongst parents suffering from anger issues, more comments were made that suggested not understanding the baby. This finding is interesting, as recent

research has highlighted the crucial importance of mind mindedness in the parents and it's consequences for the child's development, attachment patterns and theory of mind (Meins et al., 2003). Parents with anger were less likely to fall in love with their baby at first sight (one in five) compared to parents without anger (one in two). Parents with postpartum mental health symptoms commented significantly more frequently about their absence of bonding. This is consistent with previous research, which has found that impaired parent baby bonding is more common in parents with postnatal mental health problems, such as depression, anxiety and PTSD (e.g. Wilson & Durbin, 2010; Lovejoy et al., 2000; Parfitt & Ayers, 2009). Parents with anger problems used significantly more references to physical play with their babies. The relevance of this is unclear. One could speculate that this may indicate a more intrusive over-stimulating parental style. Previous studies have, for example, indicated that anxious mothers may use more intrusive, over stimulating behaviours, which do not directly correspond to the baby's signals (e.g. Feldman et al., 2009).

Methodological issues

The present study has several limitations that need to be borne in mind when interpreting these results. First, this study was based on a sample that was predominantly white European and highly educated. Therefore, results may not be applicable to ethnic minority groups or those with lower levels of education. Second, quantitative analyses were based on a relatively small sample and, in some instances, frequencies in categories were small. This small sample size meant that small effects were not identified, only medium or large. Third, the decision to combine all postpartum mental health problems into one category, due to the small prevalence of each disorder, excluded any comparisons between different postpartum diagnoses. It is therefore important that the current study is replicated and extended in larger and more representative samples. Strengths of this study are use of the in depth interview that provides a detailed insight into parent's experiences, coupled with a

consideration of how these differ between parents with and without mental health or anger issues. This paper purely focused on parental anger directed towards the baby. Feelings of general irritability or anger towards other people could also be considered in future studies. Although this study did not find many significant gender differences, future studies of parenthood and postnatal mental health need to continue to include fathers. The majority of participants commented on the interview being positive and therapeutic, giving them a chance to reflect in detail on their current experiences. The identification of groups and analysis of any differences between groups was carried out after the full thematic coding was done, in an effort to limit any biases.

Implications and conclusion

Currently, knowledge and practices for identifying parent-baby relationship problems in the community are sparse and, in the UK, health visitors have requested further training in how to identify such problems (Wilson et al., 2008). This study highlights the relevance of listening to parents' verbal accounts for understanding their relationship with their baby. Parents may benefit from talking about their perceptions and experiences, also including "taboo" subjects such as any anger towards the baby or delayed feelings of love, with their health visitor, in the early postpartum period. This could reveal potential needs for treatment but most importantly enable parents to normalise and reflect on their own experiences. This study also underlines the importance of teaching parents to be mind minded and to encourage parents to view their babies and themselves in positive terms. Health professionals could have a preventative role by encouraging parents to interpret the baby's intentions and feelings and to heighten their parental self-efficacy.

In conclusion, the present study suggests that the presence of postnatal mental health and anger issues in parents negatively influences the way they perceive their baby, themselves as parent and their relationship with their baby, which may have negative

implications on their interaction with the baby. This study especially highlights the need for future research to consider parental anger in more detail for assessment and intervention in pregnancy, birth and the postnatal period.

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Table 1.

Postnatal mental health and parental anger in men and women

	Total Sample	Women	Men
	n =85	n = 45	n = 40
Mental health and Anger	No. (%)	No. (%)	No. (%)
Anxiety ^a	12 (12.9)	9 (20)	3 (7.5)
Depression ^a	8 (9.4)	5 (11.1)	3 (7.5)
Posttraumatic stress ^a	4 (4.7)	2 (4.4)	2 (5.0)
Total mental health disorders	17 (20.0)	11 (24.4)	6 (15.0)
Anger ^a	23 (27.1)	10 (22.2)	13 (32.5)

^a Participants rating ≥ 2 (moderate or severe) on the Birmingham Interview for these variables have been identified in this category.

Table 2. *Themes and sub-themes with differences between participants with and without mental health disorders or parental anger*

Themes and sub-themes	Total sample n = 85 <i>No. (%)</i>	Mental health issue n = 17 <i>No. (%)</i>	No mental health issue n = 68 <i>No. (%)</i>	χ^2 (ϕ) *	Parental anger n = 23 <i>No. (%)</i>	No parental anger n = 62 <i>No. (%)</i>	χ^2 (ϕ) *
SECTION 1. ABOUT THE BABY							
Baby Characteristics							
Positive infant characteristics	82 (96.5)	17 (100.0)	65 (95.6)	0.02 (.10)	22 (95.7)	60 (96.8)	0.17 (-.03)
Negative infant characteristics	49 (57.6)	9 (52.9)	40 (58.8)	0.19 (-.05)	18 (78.3)	31 (50.0)	5.49 (.25) *
Physical description	30 (35.3)	9 (52.9)	21 (30.9)	2.09 (.18)	8 (34.8)	22 (35.5)	0.00 (-.01)
Social description	56 (65.9)	11 (64.7)	45 (66.2)	0.01 (-.01)	12 (52.2)	44 (71.0)	2.64 (-.18)
Baby is like self or partner	16 (18.8)	3 (17.6)	13 (19.1)	0.04 (-.02)	5 (21.7)	11 (17.7)	0.01 (.05)
Behaviour and Needs							
Sleeping	38 (44.7)	8 (47.1)	30 (44.1)	0.05 (.02)	14 (60.9)	24 (38.7)	3.33 (.20)
Feeding	46 (54.1)	9 (52.9)	37 (54.4)	0.01 (-.01)	14 (60.9)	32 (51.6)	0.58 (.08)
Crying	57 (67.1)	11 (64.7)	46 (67.6)	0.05 (-.03)	18 (78.3)	39 (62.9)	1.79 (.15)
Development							
Motor	81 (95.3)	17 (100.0)	64 (94.1)	0.15 (.11)	23 (100)	58 (93.5)	0.45 (.14)
Language	42 (49.4)	7 (41.2)	35 (51.5)	0.58 (-.08)	12 (52.2)	30 (48.4)	0.1 (.03)
Cognitive	50 (58.8)	11 (64.7)	39 (57.4)	0.3 (.06)	11 (47.8)	39 (62.9)	1.57 (-.14)
Social (smiling & laughing)	80 (94.1)	17 (100.0)	63 (92.6)	0.33 (.13)	21 (91.3)	59 (95.2)	0.02 (-.07)

SECTION 2. PARENTING**Emotions**

Disappointment	46 (54.1)	11 (64.7)	35 (51.5)	0.96 (.11)	19 (82.6)	27 (43.5)	10.31 (.35) ***
Anxiety, worry, stress	40 (47.1)	11 (64.7)	29 (42.6)	2.66 (.18)	11 (47.8)	29 (46.8)	0.01 (.01)
Self blame/guilt	38 (44.7)	11 (64.7)	27 (39.7)	3.44 (.20)	15 (65.2)	23 (37.1)	5.37 (.25) *
Frustration/irritation	32 (37.6)	4 (23.5)	28 (41.2)	1.80 (-.15)	11 (47.8)	21 (33.9)	1.39 (.13)
Exhaustion/tiredness	23 (27.1)	6 (35.3)	17 (25.0)	0.30(.09)	10 (43.5)	13 (21.0)	4.21 (.23)
Anger	23 (27.1)	5 (29.4)	18 (26.5)	0.00 (.03)	13 (56.5)	10 (16.1)	13.87 (.40) ****
Depressed, down	16 (18.8)	5 (29.4)	11 (16.2)	0.81 (.14)	5 (21.7)	11 (17.7)	0.01 (.05)
Other: helpless, responsibility	8 (9.4)	3 (17.6)	5 (7.4)	0.70 (.14)	4 (17.4)	4 (6.5)	1.25 (.17)
Pride	30 (35.3)	6 (35.3)	24 (35.3)	0.00 (.00)	11 (47.8)	19 (30.6)	2.17 (.16)
Happiness/joy	18 (21.2)	3 (17.6)	15 (22.1)	0.00 (-.04)	6 (26.1)	12 (19.4)	0.14 (.07)
Calm/in control	15 (17.6)	4 (23.5)	11 (16.2)	0.13 (.08)	1 (4.3)	14 (22.6)	2.69 (-.21)

Impulse and Control

Impulse	47 (55.3)	11 (64.7)	36 (52.9)	0.76 (.09)	22 (95.7)	25 (40.3)	20.7 (.49) ****
Loss of control/abuse	24 (28.2)	8 (47.1)	16 (23.5)	2.65 (.21)	18 (78.3)	6 (9.7)	38.95 (.68) ****

Coping Strategies

Partner involvement/support	68 (80.0)	15 (88.2)	53 (77.9)	0.37 (.10)	22 (95.7)	46 (74.2)	3.58 (.24)
Partner lack of support/conflict	13 (15.3)	2 (11.8)	11 (16.2)	0.01 (-.05)	9 (39.1)	4 (6.5)	11.42 (.40) ****
Others support	40 (47.1)	8 (47.1)	32 (47.1)	0.00 (.00)	11 (47.8)	29 (46.8)	.03 (.01)
Comparison with others re: self	37 (43.5)	6 (35.3)	31 (45.6)	0.24 (-.08)	15 (65.2)	22 (35.5)	6.03 (.27) *
Comparison with others re: baby	41 (48.2)	7 (41.2)	34 (50.0)	0.42 (-.07)	15 (65.2)	26 (41.9)	3.64 (.21)
Self-reflection	57 (67.1)	13 (76.5)	44 (64.7)	0.85 (.10)	22 (95.7)	35 (56.5)	11.67 (.37) ***

Parenthood General

Positive parenting experiences	45 (52.9)	8 (47.1)	37 (54.4)	0.30 (-.06)	12 (52.2)	33 (53.2)	0.01 (-.01)
Negative parenting experiences	14 (16.5)	4 (23.5)	10 (14.7)	0.26 (.10)	7 (30.4)	7 (11.3)	3.19 (.23)
Better than expected	42 (49.4)	5 (29.4)	37 (54.4)	3.40 (-.20)	7 (30.4)	35 (56.5)	4.54 (-.23)
Worse than expected	20 (23.5)	5 (29.4)	15 (22.1)	0.10 (.07)	12 (52.2)	8 (12.9)	14.38 (.41) ****
Social expectations	19 (22.4)	3 (17.6)	16 (23.5)	0.04 (-.06)	7 (30.4)	12 (19.4)	1.19 (.12)
Changes in self	59 (69.4)	14 (82.4)	45 (66.2)	1.68 (.14)	16 (69.6)	43 (69.4)	0.00 (.00)
Self efficacy/Positive appraisal	4 (51.8)	8 (47.1)	43 (63.2)	1.48 (-.13)	8 (34.8)	36 (58.1)	3.64 (-.21)
Self efficacy/Negative appraisal	15 (17.6)	7 (41.2)	8 (11.8)	6.20 (.31) **	8 (34.8)	7 (11.3)	4.86 (.27) *

SECTION 3. PARENT – BABY FACTORS**Parent baby relationship**

Social interaction	77 (90.6)	16 (94.1)	61 (89.7)	0.01 (.06)	20 (87.0)	57 (91.9)	0.08 (-.08)
Lack of mind mindedness	17 (20.0)	6 (35.3)	11 (16.2)	2.03 (.19)	12 (52.2)	5 (8.1)	17.74 (.49) ****
Love at first sight	37 (43.5)	7 (41.2)	30 (44.1)	0.05 (-.02)	5 (21.7)	32 (51.6)	6.09 (-.27) *
Bonding present	18 (21.2)	0 (0.0)	18 (26.5)	4.23 (-.26) *	7 (30.4)	11 (17.7)	0.95 (.14)
Separation: miss baby	48 (56.5)	10 (58.8)	38 (55.9)	0.05 (.02)	11 (47.8)	37 (59.7)	0.96 (-.11)
Feeling trapped	13 (15.3)	2 (11.8)	11 (16.2)	0.01 (-.05)	6 (26.1)	7 (11.3)	1.81 (.18)
Intimacy and contact	53 (62.4)	10 (58.8)	43 (63.2)	0.11 (-.04)	14 (60.9)	39 (62.9)	0.03 (-.02)
Socialising with others	50 (58.8)	8 (47.1)	42 (61.8)	1.21 (-.12)	14 (60.9)	36 (58.1)	0.05 (.03)
Physical play	49 (57.6)	12 (70.6)	37 (54.4)	1.46 (.13)	18 (78.3)	31 (50.0)	5.49 (.25) *

Significance * $p < .05$, ** $p < .01$, *** $p < .005$, **** $p < .001$