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Thoughts and emotions during traumatic birth: a qualitative study

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ABSTRACT

Background: Previous research shows that 1 to 9 percent of women will develop symptoms of posttraumatic stress disorder after childbirth. The objective of this study was to examine thoughts and emotions during birth, cognitive processing after birth, and memories of birth that might be important in the development of postnatal posttraumatic stress symptoms. **Methods:** In a qualitative study, women with posttraumatic stress symptoms (n = 25) and without (n=25) were matched for obstetric events to examine nonmedical aspects of birth that made it traumatic. Women were interviewed 3 months after birth. **Results:** The following themes emerged for all women: thoughts during birth included mental coping strategies, wanting labor to end, poor understanding of what was going on, and mental defeat. More negative than positive emotions were described during birth, primarily feeling scared, frightened, and upset. Postnatal cognitive processing included retrospective appraisal of birth, such as taking a fatalistic view and focusing on the present, for example, concentrating on the baby. Memories of birth included not remembering parts of the birth and forgetting how bad it was. Women with posttraumatic stress symptoms reported more panic, anger, thoughts of death, mental defeat, and dissociation during birth; after birth, they reported fewer strategies that focused on the present, more painful memories, intrusive memories, and rumination than women without symptoms. **Conclusions:** The results provide a useful first step toward identifying aspects of birth and postnatal processing that might determine whether women develop postnatal posttraumatic stress symptoms. Further research is needed to broaden knowledge of posttraumtice stress disorder before drawing definite conclusions. (BIRTH 34;3 September 2007)

Keywords: Posttraumatic stress disorder, birth, thoughts, cognition, emotion

INTRODUCTION

Childbirth is a pivotal life event for most women, and recent research has established that between 1 and 9 percent of women have symptoms of posttraumatic stress disorder after birth (1, 2). Posttraumatic stress disorder occurs when a person experiences an event during which he or she perceives a threat to his or her own life, the life of a significant other, or his or her physical integrity, and the person responds with intense fear, helplessness, or horror. Symptoms of posttraumatic stress disorder include intrusive thoughts, such as flashbacks and nightmares, emotional numbing, avoidance of reminders of the event, and hyperarousal, such as an increased startle response and irritability.

Posttraumatic stress after childbirth is likely to have a severe impact on women and their families. Qualitative research and case studies suggest that posttraumatic stress disorder significantly affects women's well-being and their relationships with their partner and baby (3 - 7). Several studies have tried to identify which aspects of birth are associated with posttraumatic stress (3, 8 - 14). Various obstetric events during birth and the subjective experience of birth have been associated with postnatal posttraumatic stress (1), but, to date, there is little agreement over which aspects of birth are important in the development of the disorder (2). In particular, the role of obstetric events, such as type of delivery, is equivocal. This inconsistency is not surprising because of the importance of individual differences in the perception of events and subsequent reactions.

Psychological theories of stress and posttraumatic stress emphasize the importance of individual thought processes, particularly appraisal, about whether people develop posttraumatic stress disorder after a traumatic event (15). Appraisal

is the way in which an individual perceives and interprets an event, symptom, or thought, and the meaning they attach to it. Ehlers and Clark (16) suggest that some types of appraisal might make people more likely to develop posttraumatic stress disorder, for example, if they experience mental defeat, such as feeling defeated and helpless to act or affect the outcome. After an event, people with posttraumatic stress symptoms may be less likely to recover if they interpret the event or their symptoms in such a way that the threat continues, for example, believing that they are going mad, that it might happen again, or that they have no control over it. Overall, research into posttraumatic stress disorder has identified a few thought processes that are associated with the disorder and poor recovery after a traumatic event, such as mental defeat (17), negative interpretation of intrusions, rumination, and thoughts of anger (18).

Such theories suggest that thoughts during and after birth are critical in determining women's emotional responses to birth, and subsequently whether or not they develop postnatal posttraumatic stress disorder. However, to date, no research has examined thoughts and emotions in childbirth and how this factor might influence postnatal posttraumatic stress. The current study was designed to look more closely at thoughts and emotions during birth, cognitive processing after birth, and memories of birth, and to examine how these might be involved in the development or maintenance of postnatal posttraumatic stress symptoms. The lack of previous research suggests that qualitative research is preferable to understand the range of thoughts and emotion that occur during birth, and the type of spontaneous processing that occurs after birth. However, subjective experience and subsequent appraisal are highly dependent on actual events of birth. Thus, since women who have

complications and emergency interventions are more likely to make negative appraisals, women with posttraumatic stress symptoms were matched for obstetric events with women with few, or no, symptoms. Both groups of women were interviewed in depth about their birth experience.

METHODS

In this qualitative study a subsample of women were interviewed who were participating in a separate longitudinal questionnaire study from pregnancy to 6 months postpartum (n = 289). After birth, women with severe symptoms of childbirth-related posttraumatic stress (n=25) were identified from questionnaires and matched with women with few, or no, symptoms (n=25) for obstetric events, age, and parity. These women were then interviewed about their birth experience 3 months after birth.

Longitudinal study from which sample were recruited

Ethical approval was obtained, and 289 women were recruited from antenatal clinics at a United Kingdom teaching hospital over a period of 3 months. Questionnaires were sent to women at 36 weeks' gestation, 1 week after birth, 6 weeks after birth, and 6 months after birth. Questionnaires measured a range of psychosocial factors including posttraumatic stress symptoms at all time points, using the Mississippi Posttraumatic Stress Disorder subscale (19) in pregnancy, the Impact of Event Scale (20) after birth, and the Posttraumatic Stress Symptom Scale (21) after birth. Postnatal measures of posttraumatic stress were adapted to measure symptoms in relation to childbirth only. The Impact of Event Scale measured childbirth-related symptoms of intrusions and avoidance. A cutoff of more than 19 on either subscale has been recommended as indicating severe symptoms.

The self-report version of the Posttraumatic Stress Symptom Scale measured childbirth-related symptoms (4 re-experiencing, 7 avoidance, and 6 arousal items) and a combined cutoff of more than 17 plus a disability score of more than 2 has been recommended as indicating severe posttraumatic stress symptoms (22, 23). In addition, medical records were checked regularly to determine when women gave birth and to record obstetric details. Women who had a stillbirth were excluded at this point because the ethics committee had concerns that continuing to participate in the study would be distressing for these women.

Selection of study sample

Posttraumatic stress group: Women were selected for the posttraumatic stress group if they scored above the cutoff for severe posttraumatic stress symptoms on either of the two postnatal questionnaire measures of posttraumatic stress symptoms, administered at 1 and 6 weeks after birth. Eligible women were contacted and asked if they would participate in the study. If women agreed, an interview was arranged. If the researcher was unable to contact the woman by telephone, a letter was sent requesting participation. Three attempts were made to contact eligible women. Women were interviewed 3 months after birth.

Of the 38 women who fulfilled criteria for inclusion on the basis of their posttraumatic stress scores, 28 (74%) agreed to take part in the study. Women who did not participate either refused outright or agreed but did not respond to requests for an interview. Recording errors prevented data being used for 3 women, leaving a sample of 25 women in this group (66%).

Control group: Women were only eligible for inclusion in the control group if their birth experience was similar to that of a woman selected for the posttraumatic

stress group on a range of obstetric variables (parity, type of labor onset, type of delivery, complications with the baby, type of analgesia used, complications of labor, labor duration, and blood loss). In addition, women in the control group had to have few, or no, symptoms of posttraumatic stress. However, since the deliveries of women in the symptom group often involved multiple or severe complications, such as HELLP syndrome, the number of women who were eligible for the control group was limited and some initial symptoms of traumatic stress would be expected. All matched women agreed to participate in the study (100%).

Interview

Women were interviewed 3 months after giving birth. The interview schedule was developed from pilot research in which 15 women were interviewed about their experiences during birth. The primary aim of the interview was to examine women's thoughts and emotions during birth and subsequent cognitive processing of the birth. Therefore, during the main part of the interview women were asked to recount their experiences during labor, after which they were asked about their response to birth, support, additional stress, and trauma history.

Data Analysis

Interviews were taped and transcribed, and qualitative thematic analysis of transcripts was conducted. Transcripts were read repeatedly to identify all statements about women's thoughts and emotions during birth, cognitive processing after birth, and memories of birth. Transcripts were coded using WinMAX computer software (24), and a coding schedule was developed. Codes and themes were discussed and agreed upon by a second researcher, after which all transcripts were coded using the agreed-upon coding schedule. Since the aim of this study was to examine how thoughts and

emotions differed between women with and without posttraumatic stress, themes were first extracted using transcripts from all women and then differences between the two groups were noted.

RESULTS

Analysis of differences between women with posttraumatic stress symptoms who agreed to be interviewed and women who did not agree to be interviewed showed that nonparticipants had more symptoms of avoidance than women who did participate (Impact of Event Scale: Mann-Whitney U test = 3.0, $p < 0.05$) and fewer symptoms of posttraumatic stress during pregnancy (Mann-Whitney U test = 10.5, $p < 0.05$). Sample characteristics for women who were interviewed are given in Table 1. Women with posttraumatic stress had significantly more symptoms during pregnancy and after birth than women in the control group. Groups did not differ with respect to demographic details, obstetric details, or reporting that birth was traumatic.

Thematic analysis of interview transcripts was conducted for 4 areas: thoughts during birth, emotions during birth, postnatal cognitive processing, and memories of birth, as recalled by women 3 months after birth. Table 2 shows the main themes and subthemes that emerged. Themes are illustrated with quotations from participants, who were assigned numbers A1 to A25 for women with posttraumatic stress symptoms, and B1 to B25 for women without symptoms.

Thoughts during birth

Interview transcripts were examined for any reference to thought processes during birth, and 12 themes were identified. The most frequently mentioned themes were mental coping strategies, mental defeat, wanting labor to end, and poor understanding of what was going on. Themes mentioned by fewer than one third of the sample

included worry, dissociation, thoughts of death, distorted perception of time, thoughts about the baby, decision making, disbelief, and evaluation of labor.

Mental coping strategies

Mental coping strategies were mentioned by over one half of the sample and included women's coping or intended coping strategies during labor, such as being open-minded, actively trying to control labor, and focusing on the end point.

> I thought, let's just kind of wait and see what happens. (B6)
>
> I said, well this time I can control them by myself, you know, in my mind. (B8)
>
> I thought to myself, I am so close, I've just got to do it. (B20)

Related to this coping strategy were *thoughts about the baby*, which women often used to condone events during birth or to cope.

> At that point my outcome was to have a healthy baby…rather than to have an active birth. (B6)
>
> I just thought, you know, this is the best thing for the baby, it's important to have the baby. (B6)

Most women also mentioned experiencing transient worries about the baby, such as,

> I was thinking, you know, is the baby OK? (B19)

Less frequently mentioned *worries* or fears included embarrassing events of birth, losing control, or complications, for example,

> My biggest fears about giving birth were poohing, shouting or swearing, or making some awful noise. (B2)
>
> My fear was being out of control, my fear was being in this vortex of pain and screaming in agony. (A25)
>
> My fear of ripping completely from – putting it bluntly – from back to front. (B2)

Women in both groups mentioned *wanting labor to end*, which included wishing

labor was over and not caring what ensued as long as the labor ended.

> I thought oh, God, I don't care, just get it out. (B25)
>
> [I was] thinking cut my head off, do whatever you want to me, just make it stop. (A16)

Mental Defeat

Mental defeat was primarily mentioned by women with posttraumatic stress symptoms, and involved expressions of being overwhelmed by labor or of giving up. Women talked of having enough and feeling they could not do it.

> I'd had enough. (A5)
>
> I really thought I couldn't do it. (B21)
>
> I just gave up, and I just thought this is never going to happen. (A20)
>
> Eventually I said 'I can't, I can't, I'm so tired, I'm so frightened, I can't do it, I can't do it,' and I started to cry. (A25)

Thoughts of death and dissociation

Women with posttraumatic stress symptoms also reported more thoughts of death (their own or their baby's death) and dissociation during birth than women with no symptoms.

> I just thought, Jesus it's happening to me or something, I'm going to die. (A13)
>
> I thought, if I'm going to die, die now. So I just went to sleep. (A10)
>
> I just thought she [the baby] is going to die, that was all I could think of. (A22)

Women's thoughts of death were usually in response to complications with labor or with the infant, but some women thought they would die without any preceding complication. For example, one woman said that when she arrived at hospital she thought

> Oh no, I've done it, I've gone and broke my waters. How am I going to cope with the

> pain, am I going to die? (A19)

Women from both groups also reported reduced awareness or dissociation during labor, for example,

> Sort of like, when you see on the television where someone sort of goes into a dream sequence and when they come out of it, someone's calling their name. It felt like that. (B10)
>
> Mentally I was totally finished… I really wasn't there any more. (A11)

One woman whose parents were both dead recalled seeing her parents:

> All I recall when I blanked out was that I saw my dad on that side of me, and my mum on that side of me, and I was going down a tunnel. (B18)

One woman with posttraumatic stress symptoms evaluated the experience of dissociating as meaning she was changed or altered, saying

> That thing that clicked in my head, it sounds funny, but I can still feel it, you know. I suppose if you're taken to a certain point, you'll never come back from there again. You know, I do feel very different and that constantly reminds me. (A11)

Although dissociation was more frequently mentioned by women with posttraumatic stress symptoms, distorted perceptions of time and the events of labor were mentioned by women from both groups. *Distorted perceptions of time* included labor feeling slower or faster than it actually was.

> It seemed to go on forever. (B19)
>
> I've never known any time go so fast in my life. (A17)
>
> I just lost track of time actually, so I mean it could have been hours, it could have been minutes. (A18)

Poor understanding of what was going on

Similarly, having a poor understanding of what was going on was mentioned by

women from both groups, and it included confusion, lack of understanding, or misinterpreting events, for example,

> I had no idea that any of this was serious. (B17)
>
> I didn't think I was in labor, I just thought it was, I don't know, a urine infection. (B24)
>
> I didn't really understand what they were doing. (A15)
>
> I still don't fully understand what a caesarean is. (A6)

Additional themes

Evaluation of labor included positive and negative evaluation of the labor process. Positive evaluations were usually made during the early stages of labor, such as,

> I thought, this isn't too bad, let's hope it keeps on like this. (A4)

Negative evaluations were typically made as labor progressed, such as,

> I was thinking this is actually extremely hard work and I am not terribly happy about it. (B17)
>
> I was saying, oh my God, this is terrible, no more, no more. (A10)

Decision making included statements about decisions made during labor, which were usually about pain relief or other medical intervention, such as,

> I was thinking, well practically, it would be very sensible to have it [cesarean] now. To get it out of the way and just do it. (B1)
>
> So I decided I couldn't carry on much longer without anything else, and I sort of decided on the spur of the moment I would have an epidural. (A20)

Finally, a few women expressed *disbelief* when the baby was eventually born.

> I thought I can't believe it, because I thought I was going to be pushing for hours. (B7)
>
> When the head came out it was just unbelievable, I had done it, it's unbelievable. (B21)

Emotions during birth

All references to emotional states during labor were extracted from the interview transcripts. References to feeling "fine," "okay," "tired," or "exhausted" were excluded because they were ambiguous and could refer to physical state. The two themes that emerged were positive emotions (*n*=9) and negative emotions (*n*=20). Negative emotions were feeling scared, frightened, panicky, shocked, alarmed, stressed, worried, upset, apprehensive, anxious, nervous, disappointed, discouraged, helpless, depressed, bored, frustrated, irritable, annoyed, and angry/aggressive. Positive emotions were feeling happy, pleased, glad, calm, excited, surprised, amazed, relieved, and grateful.

Negative emotions

The most frequently reported negative emotions were feeling scared, frightened, and upset. Women from both groups talked of being scared or frightened of a range of factors, such as particular procedures or events during birth, not coping, losing control, or being scared for their life or the life of their baby. For example,

> I know I felt quite scared at that point because I was – I was trying different positions and I was thinking 'God, this is awful', you know, 'nothing's really helping'. (B2)
>
> Fear just overtook the pain because I was scared that something was going to be wrong with him [the baby]. (A5)
>
> I think I was very frightened of it, frightened of the whole thing. (A25)

Women talked of being upset either generally in response to problems with the baby, or more specifically in response to someone else's actions.

> The first midwife didn't read my birth plan and that upset me. (B2)
>
> So I clamped up and got really upset and she stopped. (B6)
>
> I was really upset and that because of what had happened, it just felt really horrible.

(A5)

I was getting really upset and the whole night I felt quite, just really emotional. (A12)

A few women also evaluated these feelings negatively, for example,

I got scared and that's the one thing everyone told me to do – was not to be scared. (A2)

Positive emotions

The most frequently reported positive emotions were feeling happy, pleased, and glad in response to their own actions or self and to pain relief. Positive emotions were mentioned more by women without symptoms, for example,

I actually felt so sort of controlled, I actually really enjoyed it. (B11)

So I was walking up and down the corridor, quite happy with myself. (B14)

I was very happy when it [the epidural] worked. (B14)

Women with posttraumatic stress symptoms mentioned positive emotions mostly in relation to the delivery of the baby and knowledge that the labor was over.

They could see his head and that's when I sort of laughed, but I wanted to cry sort of thing because I was really happy. (A2)

I was very happy it was all over. (A8)

Overall, women with posttraumatic stress symptoms mentioned feeling panicky and nervous more than women without symptoms, and they were less likely to report positive emotions during birth. Interestingly, only women with symptoms mentioned feeling angry, aggressive, annoyed, or irritable.

Postnatal cognitive processing

Postnatal cognitive processing of birth highlights thought processes that occur spontaneously in women to help them come to terms with birth. However, comments of this nature were not common and even the most frequent themes were mentioned

by fewer than one fourth of the sample. Two main themes were evident: retrospective appraisal of birth and focusing on the present.

Retrospective appraisal of birth

Retrospective appraisal of birth occurred in several ways. The most common method was taking a *fatalistic view* of birth, in which women from both groups interpreted events of birth as unlucky or otherwise determined, for example,

> The odds were against me. (B6)
>
> It all depends what you got stuck with, I mean these things are never in your hands are they? (B14)
>
> What you like is not necessarily what's going to happen to you. (A6)

Related to this view was focusing on the *inevitability of labor*, for example,

> You've got to do it…haven't you? (B1)
>
> One day I would have experienced it sooner or later. (A2)
>
> I think it's just one of those things you have to work your way through. (A3)

and *lack of person choice or autonomy* during birth, for example,

> I didn't have any choice. (B12)
>
> There's no choice really. (A3)

Appraisal processes that were less often mentioned were *attributing negative experiences to parity*, where women would attribute events to having a first baby, which would reduce the threat of a second birth being the same in the future, for example,

> They say your first tends to be the worst. (B5)
>
> When it's your first child, I mean you're supposed to experience all these things. (A2)

A few women focused on the *meaning of birth for others*, usually their partner.

> That was the closest time… in my life for us together. (B2)

A few women used *humor* to reframe negative events during birth, such as,

> I've seen a cow literally delivering a baby calf… and I think the cow was sort of treated a little bit more kindly by the doctor than I was! (B25)

Focusing on the present

Focusing on the present also involved several different strategies that, interestingly, were usually mentioned by women without posttraumatic stress symptoms. The most frequent strategy was to *focus on the baby* as meaning the birth was worthwhile.

> I always hold on to 'he's healthy and he's great and he's a wonderful baby'…we're very lucky. (B6)
>
> It's all worth it in the end and I probably could [do it] again. (B12)
>
> You know, when it comes to have it, it is just that day, and you end up with a beautiful thing. (B21)

Women would also *focus on their health* and appreciate their current state, such as,

> I mean I'm here and at the end of the day it was okay. (B1)

Related to this health focus was comparison of birth with the more prolonged stress of pregnancy and child rearing.

> I would rather go through the labor for a day and a half than go through 4 months of what I went through [in pregnancy]. (B12)
>
> That [birth] wasn't hard work, what was ahead was the hard work. (B10)

A few women mentioned *getting on with life* and trying to put the birth behind them.

> It happened, and that was it, and I moved on sort of thing. (B7)
>
> Once you've done it, that's it, you've got to get on with it. (B1)

Memories of birth

Nine themes emerged relating to the quality and nature of women's memories of

birth, specifically memory losses or problems, most commonly women *not remembering parts of birth* and *forgetting how bad it was*. Other themes included *active processing of memories, painful memories, memories being triggered, intrusive memories, rumination, avoidance,* and *somatization.*

Although women without posttraumatic stress symptoms said specific aspects of birth were difficult to recall, women with symptoms primarily mentioned *not remembering parts of* birth, for example,

> I don't remember-- it's all pretty much in a haze. (A11)
>
> I can't even remember half of the things they were doing. (A13)

Conversely, women without symptoms more often talked of *forgetting how bad it was,* for example,

> I was very surprised at how quickly I forgot the pain. (B20)
>
> I forget everything about it, you know, I don't remember anything. (B14)

Women from both groups mentioned *memories being triggered* by specific situations or reminders.

> I only think about it when someone asks me about it. (A15)
>
> Because they are pregnant it brings it back to me. (B2)
>
> Little things spark it off. (B1)

However, women with posttraumatic stress symptoms were more likely to mention *painful memories* that clearly evoked negative emotions.

> I mean it really bothered me… really bothered me. (A11)
>
> I don't like to think about it, it just makes me feel really upset again. (A5)

They also mentioned *intrusive memories*, such as,

> I just kept thinking about it all the time and I felt like I had some sort of car crash or something, I kept getting flashbacks all the time and I found it really upsetting. (A12)

> I have had flashbacks, I was just petrified and terrifying. (A20)
>
> Sometimes horrible images flashed through my mind. (A25)

In addition, only women with posttraumatic stress mentioned *rumination* or dwelling on thoughts or memories of birth with negative consequences, for example,

> They get quite, sort of, depressing because…you start going really into it. (A9)
>
> Even now, like the other night, I couldn't go back to sleep because I was thinking about it. (A20)

Interestingly, although avoidance is a symptom of posttraumatic stress disorder, women in both groups mentioned actively trying to *avoid memories* of birth.

> I try not to dwell on it. (B1)
>
> Every time it would come into my mind I would push it away. (A16)

Themes that were less often mentioned were *processing of memories*, where women talked of trying to reach some resolution, for example,

> It bothered me for…a day or two I think, but quite quickly it became just like a big story to tell. (B25)
>
> I struggle with [the birth] a little bit now, but I struggled enormously just afterwards. (B2)

Somatization occurred in a woman who had very few symptoms of posttraumatic stress but developed vaginismus; she said,

> It was as if my body had a memory of the trauma. (B6)

DISCUSSION

This study provides detail about women's thoughts and emotions during birth, cognitive processing after birth, and the quality and nature of memories of birth, as reported by women 3 months after birth. The qualitative design also explored aspects

of the subjective experience of birth that might contribute toward the development of postnatal posttraumatic stress. The results suggest that women may be more likely to develop symptoms if their experience of birth includes more panic, anger, thoughts of death, mental defeat, and dissociation. Nevertheless, as a qualitative study, we cannot draw conclusions about the direction of causality and should bear in mind the possibility that symptoms lead to interpretation of birth events in a way that emphasizes these thoughts and feelings. However, the presence of negative emotion and thoughts of death during birth is consistent with diagnostic criteria for posttraumatic stress disorder. The findings show that thoughts of death are not always in response to objectively life-threatening situations and that women can be frightened that they might die without any medical reason or trigger. Health care professionals could easily reassure women and their partners about this concern by preventing or minimizing the perception of life threat.

The importance of mental defeat and dissociation is consistent with theory and research described earlier. The finding that women with posttraumatic stress experience more anger emotions during birth than women without symptoms is interesting and consistent with research into posttraumatic stress symptoms after other events (18). However, anger has not been widely examined in relation to childbirth and these results suggest it warrants further research. It is possible that anger during birth leads to continued anger or blame after birth, which may exacerbate and perpetuate posttraumatic stress symptoms.

After birth, women with posttraumatic stress reported more painful memories, intrusive memories, and rumination, and used fewer coping strategies that focused on present benefit, such as the baby or their health. One interpretation of this finding is

that these types of memories perpetuate symptoms or, alternatively, they may be an inevitable consequence of a more negative birth experience as reported by women with posttraumatic stress. Although women in both groups had obstetrically similar births and reported their experience of birth as traumatic, one limitation of the current study is that it did not include a measure of whether births fulfilled criterion A of DSM-IV criteria for posttraumatic stress disorder, that is, whether women perceived a threat to their life or the baby's life or physical integrity, and whether they responded with fear, helplessness, or horror. Therefore it is not possible to look at the proportion of women in both groups who had a traumatic birth as defined by DSM-IV criteria, independent of posttraumatic stress symptoms. Further research is needed to examine both women's appraisal of birth as traumatic and DSM-IV criteria for posttraumatic stress disorder.

It is also important to acknowledge that some women in this study experienced particularly severe complications of labor or with the baby. In these cases, it is possible that women who did *not* develop posttraumatic stress symptoms are unusual, rather than women with posttraumatic stress being unusual. For example, women who did not develop posttraumatic stress symptoms under these circumstances may have particular strengths or coping strategies, or respond in different ways. The finding that women without symptoms focused on present benefits, such as the baby, their health, and getting on with life, suggests these strategies might help women recover from a traumatic birth and reduce the likelihood of developing posttraumatic stress symptoms. Another possibility is that women without posttraumatic stress symptoms developed different problems, which was evident in the woman who developed vaginismus after a long labor that culminated in

failed attempts at ventouse delivery, forceps delivery, and a subsequent emergency caesarean section for fetal distress. The role of individual differences in *how* women respond to a difficult birth therefore also needs to be considered. The results of this study suggest that postnatal appraisal processes may be important in helping women resolve a difficult or potentially traumatic birth experience.

Although is not possible to draw conclusions about the direction of causality or to infer from these results to the general population, if these qualitative results are substantiated by quantitative research, implications for clinical practice can be made. During birth, the obvious implication is that birth attendants should watch for signs of excessive fear, panic, mental defeat, or dissociation, as well as frustration, irritability, and anger. If women are identified early enough, steps could be taken to reduce negative emotions and perceptions of life threat before women experience mental defeat or dissociation. In cases where mental defeat or dissociation is evident, women should be supported as much as possible during labor, and offered further psychological support after birth. They should be told about intrusive and painful memories so they are prepared for these symptoms and do not interpret them as a sign that they are going mad or are permanently altered. Women with signs of posttraumatic stress should be offered psychological support, although little consistent evidence is available about effective treatment of such women and caregivers need to identify the most promising ways of treating these women (25). However, this study also suggests caregivers must be alert to the possibility that women with other problems, such as pelvic pain or vaginismus, might also be responding to a difficult or traumatic birth.

Conclusions

These results provide a useful first step toward identifying aspects of birth and postnatal processing that might determine whether women develop postnatal posttraumatic stress symptoms. If substantiated, results suggest that health care professionals should attend to women's emotional state during birth and try to minimize negative emotions and perceptions of life threat. Women with signs of mental defeat or dissociation during birth should be offered postnatal support to prevent the development of posttraumatic stress disorder. Further research is needed to address limitations of the current study and to broaden knowledge about posttraumatic stress disorder before definite conclusions can be drawn.

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Table 1. Sample characteristics

	Women with symptoms (n=25) No. (%)	*Women without symptoms (n=25) No. (%)*
Obstetric variables		
Parity		
Primiparous	17 (68)	17 (68)
Multiparous	8 (32)	8 (32)
Type of labor onset		
Spontaneous	18 (72)	18 (72)
Induced	7 (28)	7 (28)
Type of delivery		
Normal delivery	18 (72)	17 (68)
Assisted delivery	4 (16)	5 (20)
Cesarian section	3 (12)	3 (12)
Type of analgesia		
None or TENS	3 (12)	2 (8)
Gas and air	3 (21)	3 (12)
Pethidine	4 (16)	6 (24)
Epidural	15 (60)	14 (56)
Labor duration (hr), mean (SD)	11.29 (6.7)	11.64 (7.5)
Blood loss (ml), mean (SD)	328 (235)	306 (205)
Complications of labor	4 (16)	8 (32)
Complications with baby	11 (44)	6 (24)
Demographic variables		
Age (yr), mean (SD)	29.5 (5.8)	32 (4)
Ethnic group		
Caucasian	18 (72)	20 (80)
Asian	2 (8)	4 (16)
African/Afro-Caribbean	5 (20)	1 (4)
Educational qualifications		
None	2 (8)	3 (12)
GCSE/O'level	5 (20)	5 (20)
A level/diploma	15 (60)	12 (48)
Degree	3 (12)	5 (20)
Marital status		
Married	13 (52)	19 (76)
Cohabiting	7 (28)	5 (20)
Single/separated	5 (20)	1 (4)
Previous trauma or psychological problems		
Previous traumatic birth[a]	4 (16)	4 (16)
Previous postnatal depression [a]	4 (16)	4 (16)
Previous psychological problems	5 (20)	1 (4)
Previous traumatic event other than birth	7 (28)	4 (16)
Posttraumatic stress symptoms	Mean (SD)	Mean (SD)
Appraisal of birth as traumatic (1 wk postpartum)	5.37 (3.09)	3.85 (2.73)
Impact of Event Scale intrusions (1 wk postpartum)	18.32 (10.28)	3.77 (2.88)**
Impact of Event Scale avoidance (1 wk postpartum)	15.57 (7.92)	1.24 (1.99)**
Posttraumatic Stress Symptom Scale (6 wk postpartum)	13.0 (7.75)	5.0 (3.44)**
Posttraumatic stress symptoms in pregnancy	12.01 (9.17)	7.2 (6.67) *

[a] Multiparous women only; differences between groups significant at *p < 0.05; ** p < 0.001.

Table 2. Themes from interviews and whether they were present in all women, predominantly women with posttraumatic stress symptoms, or predominantly women without symptoms

Themes	Subthemes	All women	Women with symptoms	Women without symptoms
Thoughts during birth	Mental coping strategies	X		
	Wanting labor to end	X		
	Poor understanding	X		
	Worry (cognitive)	X		
	Distorted perception of time	X		
	Mental defeat		X	
	Dissociation		X	
	Thoughts of death		X	
	Thoughts about the baby			X
	Decision making			X
	Disbelief			X
	Evaluation of labor			X
Emotions during birth				
Negative emotions	Scared, frightened, upset, apprehensive, anxious, shock, stress, disappointed, bored, frustrated	X		
	Panicky, nervous, angry, aggressive, annoyed, irritable, alarmed, helpless, discouraged		X	
	Worried, depressed			X
Positive emotions	Happy, glad, excited, amazed	X		
	Surprised, grateful		X	
	Pleased, calm, relieved			X

Postnatal cognitive processing					
Retrospective appraisal of birth	Fatalistic view	X			
	Inevitability	X			
	Lack of choice	X			
	Attribution to parity	X			
	Meaning of birth for others				X
	Humour				X
Focusing on the present	Focus on baby				X
	Focus on health				X
	Comparison with other events				X
	Getting on with life				X
Memories of birth	Active processing of memories	X			
	Memories being triggered	X			
	Avoidance	X			
	Not remembering		X		
	Painful memories		X		
	Intrusive memories		X		
	Rumination		X		
	Forgetting how bad it was				X
	Somatization				X