Journal of Reproductive and Infant Psychology Vol. 16, 107-131 (1998)

A qualitative analysis of the process, mediating variables and impact of traumatic childbirth

SARAH ALLEN
Department of Psychology, University of Southampton, Southampton SP17 IB], UK

Abstract: The processes occurring during traumatic childbirth experiences, factors mediating development of PTSD symptoms and the impact on post-partum adaptation were explored in a cohort of 20 women 10 months post childbirth. Pain, past experiences and beliefs that their baby would be harmed led to feeling out of control which was maintained by failed attempts to elicit practical and emotional support from staff and partners. Following childbirth, coping strategies relating to successfully accessing more than one source of social support, positive re-interpretation of traumatic events and making time for own interests were associated with reduced distress. Avoidance of thinking about events and a belief that one should not admit to not coping maintained distress. Consequences of continued distress related to an impact on self, relationships with others and fear of future childbirth. The Revised Impact of Event Scale (Horowitz *et al.*, 1979) was used as a measure of PTSD symptoms. Six women reported scores above the cut-off point indicating clinically significant scores and two women had borderline scores. The present findings therefore support the evidence from the PTSD and childbirth literature that some women do report clinically significant levels of PTSD symptoms following childbirth.

Introduction

Previous research on psychological factors relating to childbirth mainly concentrates on women's overall satisfaction with their childbirth or on postnatal depression, with relatively little focus on how women's subjective experiences of labour are relevant to their post-partum psychological state. However, recently there has been a burgeoning literature reporting that some women experience PTSD symptoms following childbirth, e.g. Beech and Robinson (1985); Kitzinger (1992); Moleman *et al.*, (1992); Niven (1992); Ryding (1993); Ralph and Alexander (1994); Ballard *et al.* (1995); Crompton (1996a, b); Lyons (1998); Alien, North and Elliott (submitted).

PTSD can involve a person persistently re-experiencing the traumatic event, avoiding stimuli associated with the trauma, experiencing numbing of general responsiveness and persistent symptoms of increased arousal. The DSM IV (American Psychiatric Association, 1994) defines the stressor criterion for PTSD as occurring when a person has experienced, witnessed or was confronted with, a traumatic event that involved actual or threatened death or serious injury,

a threat to their or another's physical integrity and the stressed person's response involved intense fear, helplessness or horror. Childbirth can be frightening for some women, and they may fear for their own or for their infant's life and physical well-being. Medical procedures during labour can also be invasive and associated with feelings of lack of control. Furthermore, the emergency nature of some events can leave professionals little time to prepare women for the procedures.

PTSD has been recognized as occurring after stressful medical and surgical procedures involving intense pain (Fisch and Tadmore, 1989), invasive medical procedures (Shalev *et ai,* 1993) and obstetric and gynecological procedures (Menage, 1993), suggesting that it is relevant to consider traumatic labour experiences as potential stressors for PTSD symptoms. The general postnatal and PTSD literature suggests that mediating factors concerning social support and coping style may increase vulnerability in the development of PTSD following childbirth. Quine *etal.* (1993) found that women who felt supported prior to labour reported less pain and greater satisfaction with the birth experience. Beech and Robinson (1985), Niven (1992), Menage (1993) and Ballard *etal.* (1995) all reported that women with PTSD symptoms following labour experienced lack of a supportive relationship with carers. Lyons (1998) found an association between higher scores for perceived social support from families and lower numbers of reported PTSD symptoms.

Several studies focusing on PTSD as a consequence of other traumatic experiences have shown social support to be involved in the etiology, maintenance and development of PTSD (Jones and Barlow, 1990). Solomon *etal.* (1988) reported that more intense PTSD symptoms were not only associated with insufficient perceived social support but also emotion-focused coping style and Gotlib *etal.* (1991) found a greater use of escape-avoidance coping strategies in women who became depressed postnatally. Psychological and sociological literature has shown the importance of psychological functioning and social context in relation to post-partum distress.

Oakley (1980) suggests that it is normal to experience difficulties following

childbirth due to factors relating to the birth management, feelings of control and current life situations. Socialization, and cultural stereotypes relating to motherhood being only a positive experience, also influence feelings of failure and distress when expectations are not met. Oakley's (1980) study is important in showing that stress and patterns of coping are linked to typical experiences of motherhood, therefore PTSD symptoms may be the extreme end of a continuum.

Oakley and Rajan (1991) warn that identifying postnatal distress can lead to pathologizing women. Kitzinger (1992) suggests that to give a woman a psychiatric label following an overwhelmingly stressful labour locates the problem away from her care to a problem with her mind, especially given that childbirth has been medicalized to the extent that there is more reliance on technology and procedures, often to the detriment of addressing the needs and fears of the mother.

The psychosocial model of PTSD (Green et al, 1985) argues that there is a complex interaction between stressors, individuals' characteristics (coping strategies, prior stressful experiences) and their social/cultural environment, indicating that a study of the experience of traumatic childbirth should investigate the role of these factors as well as the events leading to the traumatic experience.

To the author's knowledge, there has not been a study specifically investigating the impact significant PTSD symptoms have on post-partum adaptation. However, there have been a small number of short discussions of impact identified in the course of related areas of research or in clinical practice relating to the following areas. Affonso (1987) found that negative feelings towards infants were associated with mothers' reports of post-partum adaptation difficulties and Ballard et al. '(1995) presented case reports of four women with PTSD and found that three reported the need to avoid contact with their infants following a traumatic birth. Stewart (1982) and O'Driscoll (1994) also suggest that marital and sexual relationships suffer following traumatic births and Niven (1992), Ryding (1993) and Lyons (1998) report that previous distressing labours lead to fear and avoidance of future childbirth.

Research concerning PTSD symptoms following childbirth is a growing area of interest in the postnatal field but the literature review indicates that there is a paucity of studies that do not rely on case study or anecdotal evidence. The majority of studies also limit their focus to describing the existence of PTSD symptoms without consideration of triggering factors or mediating variables deemed to be pertinent by the general PTSD literature. The present study therefore aims to identify the prevalence of clinically significant PTSD symptoms within a cohort of mothers who had given birth within a 4-week period 8 months prior to the investigation.

By enlisting the assistance of health visitors, questionnaires could be given to all willing participants attending their baby's 8-month check-up, enabling a larger-scale study of PTSD symptoms following childbirth than previously reported in the literature.

This method also enabled the identification of women who considered their labour to be extremely distressing with varying numbers of PTSD symptoms, with the aim of investigating the processes occurring during distressing labours, the mediating variables that affect psychological state and the impact that PTSD symptoms have on women's post-partum adaptation.

Researching the nature of PTSD symptoms may lead to clearer identification of women who show PTSD reactions following childbirth and provide greater awareness of the effect of experiencing PTSD symptoms. This research therefore aims to identify whether women do experience significant PTSD symptoms following childbirth and to provide data that will facilitate prevention of PTSD symptoms and guide psychological intervention with women who have experienced traumatic labour experiences rather than just labelling the experience.

This study describes the qualitative data analysis that was utilized because it is a useful means of generating a coding system for looking at data when a predetermined set of categories is not available (Dey, 1993). Due to the paucity of research on the effect of experiencing PTSD symptoms following a distressing labour, an exploratory framework was necessary.

The present research project also used quantitative research methods to investigate the relationship between scores on the Revised Impact of Event Scale (Horowitz et al., 1979) (PTSD symptoms), Edinburgh Postnatal Depression Scale (Cox et al., 1987) (postnatal depression), Perceived Social Support Scales (Procidano and Heller, 1983) (social support from family and friends) and the COPE (Carver et al., 1989) (coping strategies) and these results are reported in Alien et al. (submitted).

Method

Design and procedure

Local health district ethical approval and health visitors' consent for assisting in the study were obtained. The GPs in the catchment area were informed of the study and alerted to the possibility that their patients might be identified as requiring psychological intervention.

The study consisted of two stages. Stage one involved screening for women who had experienced labours which they perceived as traumatic. Participants were given a handout which comprised a covering letter explaining the nature and design of the study; rating scales pertaining to the participant's level of joy and level of distress experienced during her last labour and level of distress at being reminded of this labour; the Revised Impact of Event Scale (Horowitz et al., 1979) to measure degree of PTSD symptoms; a questionnaire asking participants to (a) provide a description of the events during labour which they found distressing, (b) the length of time they have felt distressed when reminded of their labour, and (c) whether they wished to discuss any of the issues raised with the health visitor; and a consent form with a section for name and address if they wished to be included in the second stage of the design.

Confidentiality of responses was emphasized. Women who rated their labours as extremely distressing were followed up in stage two and asked whether they perceived their labour as traumatic. Questions developed from themes identified from the postnatal literature and a pilot study were presented in a semi-structured interview to investigate:

factors during labour causing extreme distress; the impact upon post-partum adaptation; available social support and coping strategies used in relation to their experience of a distressing labour; and subsequent PTSD symptoms.

This format was utilized to obtain a clearer and fuller understanding of factors associated with distressing labour experiences. When participants were so distressed that they either requested or the researcher's clinical judgement considered that they would benefit from psychological interventions, their permission was sought to notify their GP of the need for psychological intervention and they were referred to the local Clinical Psychology Service.

Participants

Participants came from one hospital catchment area and were recruited by health visitors during an 8 week period when accompanying their infants to their 8-month developmental check-up. This method was chosen in discussion with health visitors as the women were routinely attending the clinic and not only because they were experiencing problems.

Two hundred and twenty-three check-ups were carried out during this time period and from these contacts, 145 mothers agreed to participate in the first stage of the study. This screening stage identified 26 mothers who had experienced an extremely distressing labour, with 23 consenting to participation in the second stage of the study. However, two women had moved and one was no longer willing to participate, leaving a total of 20 women participating in the second stage of the study, all of whom perceived their labour as having been traumatic. The time period between experiencing an extremely distressing labour and the second stage interview ranged from 8 to 10 months.

Eighteen of the women lived with a husband/partner, one with her parents and one with her children only. For nine of the women, the labour was their first, six had one older child, two had two older children, two had three older children and one had four older children. The catchment area consisted of both rural and small urban areas

and was relatively prosperous with a predominately white population. Ethnic background and age of participants were not investigated. Table 1 shows the socio-economic groupings of the sample.

Table 1. Socio-economic groupings of mothers included in stage two

Socio-economic group	« = 20
I .	7 (35%)
II	5 (25%)
III Non-manual	2(10%)
III Manual	3(15%)
IV	1 (5%)
V	2 (10%

Measures Stage one

A self-report questionnaire was designed for stage one of the study and participants were asked to rate on a four-point scale (0—3), where 3 is extremely, 2 moderately, 1 mildly and 0 not at all, how distressing they found their labour when experiencing it and how distressed they felt now when reminded of their labour experience. In order that the focus of questions was not only on negative feelings participants were also requested to rate their experience of joyfulness during labour.

The Revised Impact of Event Scale (IES) (Horowitz etal., 1979) was utilized as a measure of intrusion and avoidance experiences, which are the two most characteristic aspects ofPTSD. Horowitz etal. (1979) state that the reliability of the scale is supported by test-retest reliability (intrusion subscale 0.89, avoidance subscale 0.79) and a high split-half reliability (0.86). Item content has been found to be relevant to people attending an outpatient clinic due to experiencing stress in response to a variety of traumatic life events (mean female score = 42.1) which the authors suggest supports the construct validity of the scale.

Stage two

This second stage of the study involved a semi-structured interview format, with questions being based on the small amount of literature available and topics arising from the pilot study interviews. See Appendix for the interview format.

Data analysis

Qualitative analysis research methods were used as they provide a richer and more elaborate study of data (Sieber, 1973). It is also a useful means of generating a coding system for looking at data when a pre-determined set of categories is not available. The limited available research concerning PTSD following childbirth meant that it was not possible to obtain or devise a pre-determined coding system with which to analyse the data and therefore an exploratory framework was needed. The grounded theory approach in particular was chosen as it provides systematic techniques and procedures that are relatively straightforward for the beginner qualitative researcher.

The semi-structured interviews were audio-taped and transcribed in full. A summary was made for each participant from their transcript and field notes highlighting. Information was then coded following grounded theory techniques identified by Strauss and Corbin (1990). Open coding refers to naming and categorizing the phenomena under investigation by examining the data closely. Data were broken down into meaningful parts and the concepts within it were obtained by labelling the phenomena. Concepts that relate to the same phenomena were then grouped into categories and each transcript was re-read to saturate each category by finding every example of it.

The next stage, termed axial coding, looked for linkages and connections between the categories. This stage is achieved by means of the paradigm model in which categories and subcategories are described in terms of causal conditions (events that led to the development of a traumatic labour), action strategies (actions taken

to manage feelings resulting from the trauma) and consequences (what experiencing the trauma means for the person). Therefore, the processes by which participants become extremely distressed during labour, the intervening conditions and the strategies they use to deal with their distress and the consequenses of experiencing the trauma are identified. These procedures were followed to analyse the first interviews and then subsequent transcripts were analysed using these categories. If data on the remaining transcripts highlighted evidence of further categories, previous transcripts were analysed in more depth to identify whether these additional categories had not previously been accounted for.

A further stage termed selective coding can be used for theory development and involves selecting a core category which is the central phenomenon around which all other categories that have been indicated during axial coding are integrated. Patterns identified during axial coding are grouped into conditions so that the process under different circumstances is identified. The relating of categories to the core category is done by means of the paradigm model, e.g. the process is described in terms of causal conditions lead to the phenomenon which leads to action which then leads to consequences. The theory was then validated by re-reading the transcripts to ensure that the model fits the story represented in each transcript.

Results

The total IES score mean for stage two participants was 24.0 (SD 23.5) with a range from 0 to 65. Six participants' scores exceeded Horowitz et al.'s (1979) mean of 42 for a female population experiencing stress after a variety of traumatic events and two participants reported total scores of 41, indicating that women were reporting clinically significant PTSD symptoms.

Grounded theory (Strauss and Corbin, 1990) suggests that to conceptualize qualitative material within a theory, a core category must be identified in terms of label and properties and other categories identified during analysis are then related to the core.

The paradigm model is used to present the processes by which participants become extremely distressed during labour, the intervening conditions and the strategies they use to deal with their distress and the consequences of experiencing the trauma. Extracts from transcripts are included to enhance understanding of the categories and process being described.

The core category

All participants (n = 20) stated that during their labour they had experienced intense feelings of not being in control and this is presented as the core category which all other categories relate to. The properties of the core category relate to not being in control of events (n = 20), not being in control of own behaviour (n = 17) and intense feelings of helplessness (n = 20).

The process leading to the core category

Strauss and Corbin's (1990) paradigm model is used to describe the processes during labour leading to the core category.

Causal conditions

Causal conditions refer to the events or incidents that lead to the occurrence or development of the phenomenon which is the core category. Each main causal category and relating subcategories identified during the analysis is illustrated diagrammatically and described with examples.

Belief that baby will be harmed

Beliefs that the baby would be harmed led to feelings of helplessness and a not met and the unexpectedness led to feelings of not being in control:

P88 NCT classes explained that things can happen and to have an open mind but I always thought I'd have some control and I had absolutely none.

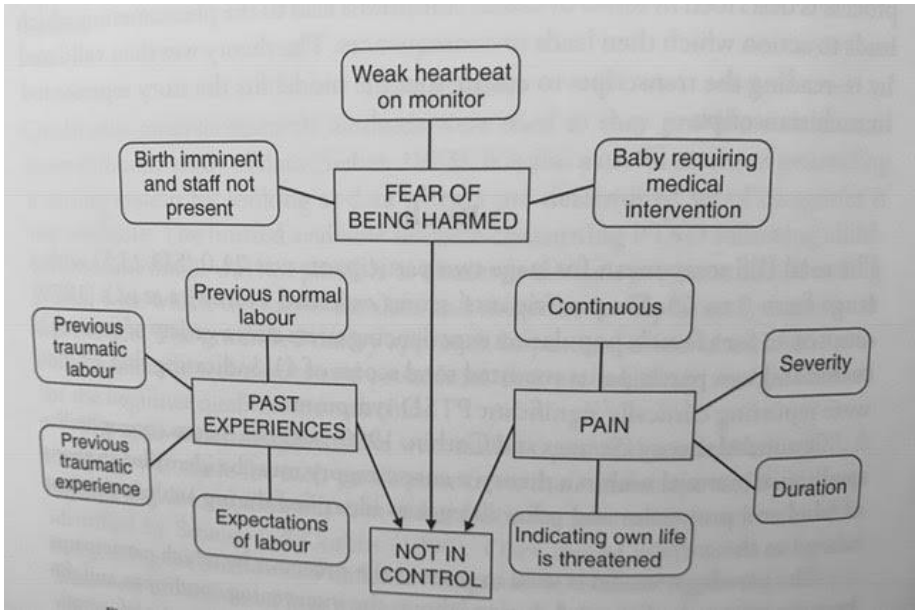
perception that events were out of the woman's control. Eleven women required either emergency Caesarian or other medical intervention because the baby had become distressed and unassisted vaginal delivery was not considered possible by staff:

P9 After a while they found she was stuck. When my hind waters broke they had to puncture the front waters and they said there was a risk of her arm flying out. I thought she was going to shoot out and half of her would still to be stuck there.

Two women believed that the monitor showing the baby's heartbeat indicated that the baby was distressed and four women feared that their baby was about to be born without any staff being present:

P5 [The midwife] felt my tummy and said that nothing was happening. I asked them to phone my husband but they wouldn't. I was in the dark because I was in so much pain I couldn't switch the light on. By now I could feel him coming down.

Figure 1. Diagrammatic representation of causal factors influencing the core category.



Pain

Eighteen of the women described pain during labour as a factor influencing their distress. The pain resulted from contractions, internal examinations and medical interventions. Ten women perceived the pain as indicating that their own life was being threatened. All 18 women mentioned the severity of the pain, five women also considered the long duration of the pain to be important and two women described the continuous unrelenting nature of the pain as being distressing as they could not do anything to prevent it:

> P2 I just thought I was going to die. The pain was coming from the roots of my hair, I could feel it keep coming ... eventually it was horrific and there was nothing I could do.

Past experiences

Seven women stated that they were reminded of traumatic past experiences during labour. One women was reminded of the death of her father by a mask placed over her face leading to her panicking that she was not in control of her behaviour. One woman did not state what her experience was and five women were reminded of previous difficult labours, in which two had lost babies, and their fears related to whether this labour would be similar:

> P11 I just got panicky because I thought I may end up going down the same road as I had with the first one so I was afraid that the same thing was going to happen.

For two women, their expectations of childbirth from previous positive experiences of labour were not met, leading to the belief that this time something was going wrong. Fifteen women stated that their expectations of labour were not met and the unexpectedness led to feelings of not being in control.

Action strategies

Strauss and Corbin (1990) describe action strategies as purposeful actions which are a response to or to manage the phenomenon. In response to the core category belief that they were not in control 18 women described processes where they attempted to access practical and emotional support during labour to reduce the perceived threat. For all the women, the action strategies failed to allay their fears and examples are given of attempts to access support and reasons why they failed.

Fourteen of the participants looked to the staff to provide practical assistance in the form of medical intervention and pain relief. When errors occurred during interventions or pain relief was ineffective the belief that they were not in control was maintained:

PI3 She [the surgeon] was cutting through the skin [during a Caesarian] and I could feel it and it really hurt. A chap who was standing by to top up the epidural, he had not given me enough, so once I felt the pain, my stomach tensed up so she had a lot of trouble to get him out.

Women also requested staff to help them with the pain through pain relief but distress was maintained when it was not given:

P88 When you ask for it [pain relief] you want it there and then but they couldn't give it to me as they had to find the anaesthetist and it seemed like forever. I was by then in such pain I was banging my head from side to side like a mental patient.

Twelve women attempted to gain reassurance that their labour was under control from both staff and partners. Distress was maintained when others were also seen to be panicking, supporting their belief that the labour was out of everyone's control:

P12 I wanted him to be big and strong, manly if you like. The fact that he wasn't happy, it made me more scared. If I could have thought 'he's calm', it would have calmed me.

In order for reassurance to be given, distress has to be acknowledged, but staff were perceived as ignoring the women's distress and their knowledge of their own bodies and needs, therefore maintaining their belief that they had no control over what was happening:

P7 I said that I had to push but they said 'No, you don't want to push yet' but I did and 10 minutes later he was born.

Sixteen women attempted to gain control through knowledge but staff were seen as being too busy to explain what was happening so the women continued to perceive a threat even when there was none:

P6 All she did was stand at the bottom of the bed doing her paperwork and then she was off again. The heartbeat went up and I called her but she was very ' dismissive and said no: to call her again.

Eleven women also sought reassurance that they would be supported during the experience from both staff and partners. Distress was maintained when women did not receive comfort or empathy and they spoke of a sense of isolation and a belief that they would have to cope alone but feeling unable to:

P9 [the anaesthetist] told me to tell him when I was having a contraction as it is dangerous to move when inserting the epidural needle but they seemed to be coming one after another and I kept telling him to stop and he couldn't get it in. After a while he threw all the stuff down and left.

Two women felt that they were unable to attempt to access support and their belief that labour was out of control was maintained because it was not challenged:

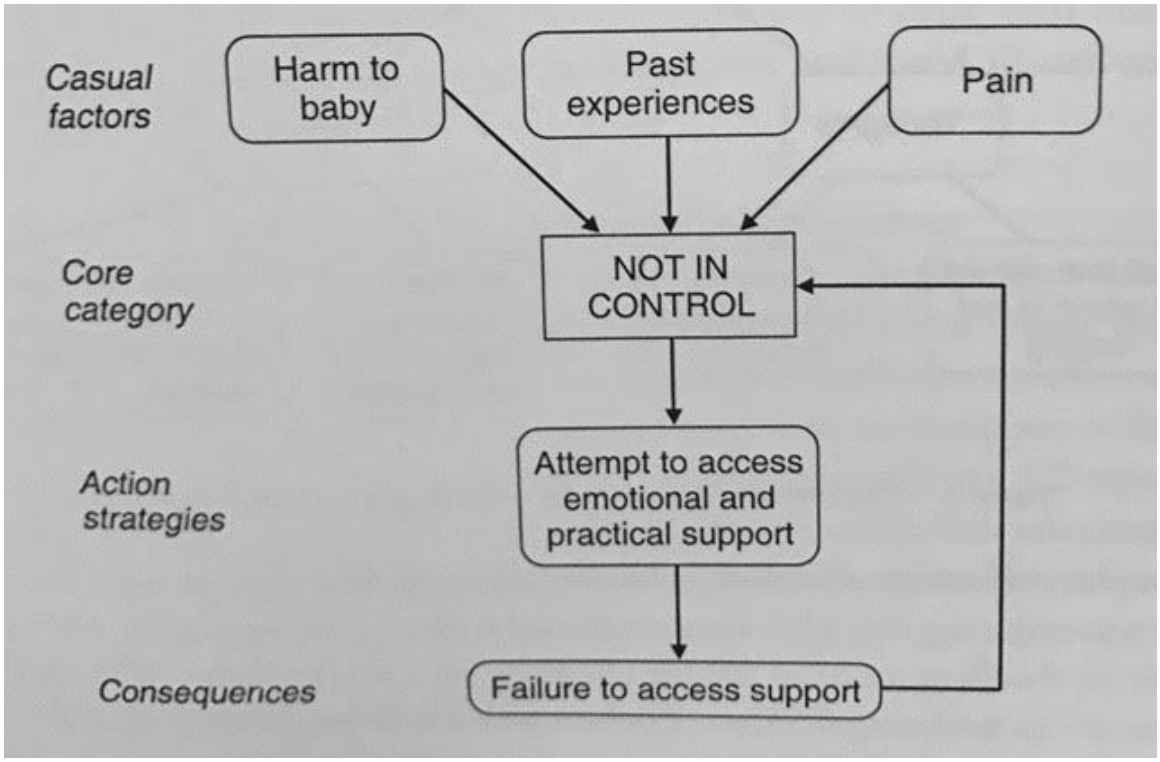
P10 I thought that the baby was stuck but because the contractions were so strong I couldn't get the breath to ask what was happening. By this stage I was also having hallucinations of death scenes.

Consequences of ineffective action strategies

When attempts to access practical assistance and support from staff and partners

failed, the women's belief that labour was out of control was maintained. Figure 2 provides an overview, using the paradigm model, of the processes during labour which influenced women's perception that they had experienced a traumatic labour.

Figure 2. Diagrammatic representation of paradigm model of traumatic labour experiences.



Action strategies used following labour

The action strategies used by women following labours emerged as thoughts and actions which produced two processes, one where distress was reduced and the other where distress was maintained at 10 months post-labour. Out of the 20 women, eight were still distressed by their experience, four had been distressed for between 4 and 9 months post-labour and eight were distressed up to 2 weeks following their experience.

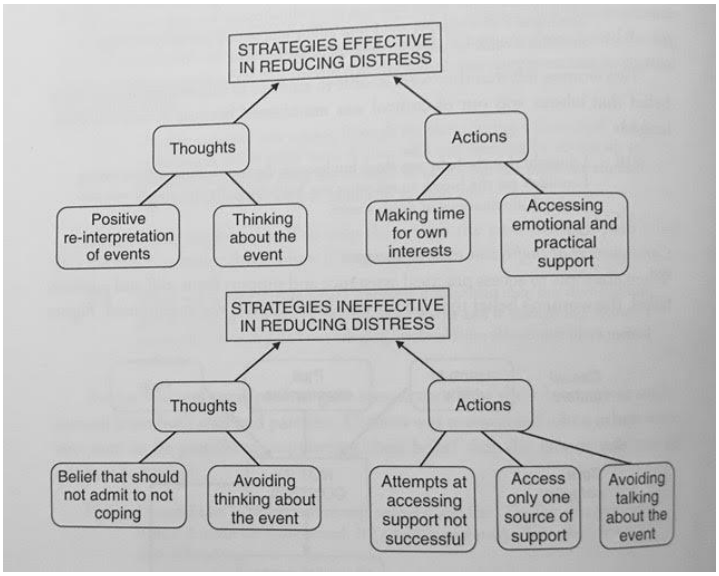


Figure 3. Diagrammatic overview of action strategies used following labour.

Thoughts and actions described by women distressed for a short period

Distress-reducing thoughts were associated with re-interpreting the event positively by dwelling more on the joy of delivering a healthy baby (4/8), thinking of oneself as not being the type of person who dwells on things (2/8) and giving oneself time to think why events occurred (1/8). Four women tried to gain control over what happened by trying to understand the experience through seeking information about why the labour was traumatic, i.e. from midwives, partners. All eight women whose distress was short-lived successfully accessed emotional support from more than one source.

Thoughts and actions described by women distressed for up to 9 months The women who had found the first few months following a traumatic labour distressing (n = 4) were those who following labour, had limited emotional or practical support, but had during that time period before the interview managed to gain access to more helpful support. Two of the women stated that they had found it useful to admit to somebody that they were finding it difficult to cope and in two cases, women had sought help following answering the screening questionnaire when realizing that other women may also be feeling distressed following labour. Three of the four women had found that they were

happier once they had made time for themselves and their own interests away from the baby and found that returning to work meant that they had less time to dwell on distressing events. Thoughts and actions described by women still distressed at stage two All of the women with IES scores above 40 had limited social support. Three women had one source of emotional support, whereas five had none. They had either tried to access support and it had not been available to them (7/8) or not wanted to admit to anyone that they were distressed (1/8). None of these women had access to practical support with looking after the baby. Thoughts maintaining the distress related to the idea that people should not find out that one is finding motherhood difficult and that the best way to cope with intrusive thoughts about the experience is to use distraction and avoid situations that remind one of it.

Consequences of experiencing a traumatic labour

Strauss and Corbin (1990) describe consequences within the paradigm model as being what the core category means for those involved. Those whose distress had lasted for short periods stated that the experience had either no effect upon them (4/8) or limited consequences (4/8) relating only to avoidance of future childbirth. Those whose distress had lasted for longer periods (n = 12) reported effects in their own behaviour, fear of future childbirth and in their relationships with others. Those with IES scores above 40 reported the most effects.

Effects to self

Ten women reported that their labour experiences had effected their thoughts, feelings and behaviour. A process emerged in which these subcategories wereinterlinked, e.g. thoughts relating to the trauma led to feelings of panic and tearfulness and attempts to establish control using avoidance and distraction. These strategies produced a vicious cycle which led to thoughts concerning inability to cope and further negative feelings. For eight women, feelings were also vented against meaningful others. This process was

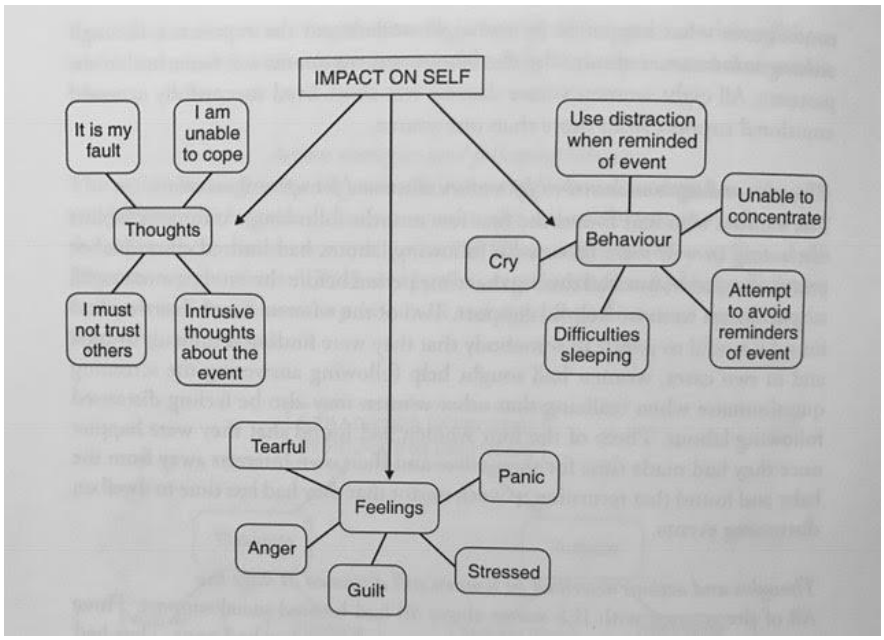
usually identified afterwards as being unfair to the other person and invoked feelings of guilt and thoughts that everything was their own fault.

> P87 I always used to be patient, but now I fly off the handle. I just need to get rid of the frustration, but the next day I think 'God, I was so unreasonable' and then I'd feel bad and that it has put even more of a strain on my relationship with [husband].

A further cycle was also identified for four women in which the intrusive thoughts evoked anger at the professionals'/partner's behaviour during the labour, leading to a mistrust of others and avoidance of social contact.

> P16 I want to get back at the professionals. I get an image of what a womb would look like being cut. I am left now with this anger bubbling around, you know, a mistrust of people and I am scared that my body will not heal and scared of having a coil fitted. I am not able to endure any pressure or stress now. If I really have to deal with anything I try to be cold and shut off. If I go out to see people or make phone calls I have to really prepare. Sometimes I just don't bother.

Figure 4 Diagrammatic overview of effects on thoughts, behaviour and feelings related to self.



Relationship with partner

All women whose IES scores were above 40 and three of the four women who had been distressed, reported that the closeness of their relationship had been negatively affected and that their partners showed irritation with them because their distress was so prolonged. Six women were angry with their partner for not seeming to understand their distress and five reported taking their anger out on their partner and then feeling guilty.

Two women reported that their sex lives had been affected and two stated that their own emotional resources were so depleted that they could no longer provide any support for their partner.

Relationship with infant

One of the four women who had been, but was no longer distressed, stated that she had been emotionally detached from the baby. Six of the women with IES scores above 40 thought that their relationship had been affected by their labour; two resented the baby for causing the trauma, one remained emotionally detached, three felt over-protective because of the experience the baby had been through, and one was scared of the baby because of her perceived inability to cope and was further distressed because her expectations of motherhood had not been met.

PI2 All I wanted was to hug her, I didn't want her to get any pain or anything. I cuddle her much more than the other two.

PI 41 I thought 'God, if I had not had this baby I would not be going through this now' 1 try to distance myself, I don't really want to know.

Relationship with others

Three women thought that their continued distress following labour had led to them being less patient with their other children. Two women discussed that they did not have the emotional energy for dealing with other peoples' problems.

P88 I feel like saying 'Oh God, you haven't been there so how can you understand'. Their problems seem so trivial, I'm just trying to cope with my own.

Future pregnancy

Thirteen of the 20 women stated that they would not have any more children, eight because of their labour experience and five because of financial or other reasons. Of the seven women who would have more children, two would only contemplate it if elective Caesareans were available.Out of the eight women with IES scores above 40, six would not have any more children and two would only do so with elective Caesareans.

Theory of distress following traumatic childbirth

The core category out of control has been identified. Three main factors were identified as conditions leading to the core category; pain, past experiences and belief baby will be harmed. All categories were not experienced by every person, although the majority experienced more than one. Women attempted to reduce the perceived threat by accessing practical and emotional support from staff and partners but when attempts were ineffective they were left with feelings of helplessness and beliefs relating to being out of control of events and oneself, and the core category was maintained.

Following labour, women applied strategies to control their distress. Successfully accessing helpful emotional and practical support appears to be the most crucial intervention strategy in alleviating distress. Other thoughts and actions also appear to influence successful coping, but used in isolation they were not enough to influence the process of reducing distress. If women used successful interventions within the first few weeks, the consequences of experiencing a traumatic labour were

minimal except for fear of future pregnancy. When distress continued, there were effects on the women's own behaviour, thoughts and feelings, relationships with their baby, partner and others and fear of future pregnancy.

Discussion

The aim of the present study was to identify whether women experience clinically significant PTSD symptoms and to explore the processes occurring during traumatic labour, factors predicting and mediating the development of PTSD symptoms and the impact on post-partum adaptation for a cohort of women 10 months post-childbirth. Six women reported total scores above Horowitz etal.'s (1979) mean of 42 for a female population experiencing stress which was taken as a cut-off point indicating clinically significant scores and two women had borderline scores of 41. The present findings therefore support the evidence from the PTSD and childbirth literature that some women do report clinically significant levels of PTSD symptoms following labour (e.g. Ballard etal., 1995; Lyons, 1998).

The use of grounded theory shaped the development of the theory of distress following traumatic labour as this research technique provides a framework to understand the women's descriptions of their experiences. This has added to the knowledge of postnatal distress by providing an understanding of the processes that can lead to experiencing a traumatic labour, the strategies which reduce or maintain distress and the consequences that arise and findings support the psychosocial model of PTSD.

Processes leading to a traumatic labour experience.

Factors influencing feelings of being out of control: Qualitative analysis looked at the process of experiencing a traumatic labour and found that the main condition experienced by all the women who perceived their labour as traumatic related to feelings of not being in control. This supports Parkes' (1984) view that perceived personal

control influences peoples' appraisal of stressors. Events leading to these appraisals were associated with pain, past experiences which influenced expectations and the belief that the baby would be harmed.

Pain. The severity, duration and continuous nature of pain resulting from contractions, medical interventions and internal examinations were cited as influencing distress, and for half of the women, pain was perceived as life threatening. Although Lyons (1998) found that pain intensity was not associated with PTSD symptoms, the present study's findings support Kitzinger's (1975) research which showed that pain resulting from medical interventions influences distress. Schreiber and Galai-Gat (1993) found that pain resulting from physical injury can be a core trauma in PTSD and case studies (e.g. Beech and Robinson, 1985; Ryding, 1993; Ballard etal., 1995) have also found that pain is described as an important factor in making a labour traumatic.

Past experiences. Past experiences related to previous traumatic events, previous normal labours, and expectations, which although linked to the previous two factors, could also result from other sources, i.e. antenatal classes. Previous traumatic events involved the death of a father and five reminders of previous traumatic labours. Menage (1993) suggests that histories of rape or abuse may influence trauma, however, none of the participants indicated this during the data collection although the information was not directly requested and the limited contact of one interview may not have built up a rapport for such disclosure.

Social learning theory (Bandura, 1977) suggests that when an event occurs, a person will make attributions to reduce the threat posed by the situation on the basis of past experiences and therefore women looked to past experiences in an attempt to understand present events. When present labour did not match memories of prior 'normal' labour, women were concerned that this indicated something was wrong. When present labours resembled previous traumatic events, fears arose that prior traumatic events would re-occur. It is possible that the women reminded of previous

traumatic labours were already experiencing

PTSD symptoms or that it was a combination of past trauma and present events that led to the present labour being seen as traumatic, as PTSD research suggests that trauma may be cumulative (McFarlane, 1988). This implies that women with such histories may be more susceptible to trauma in subsequent labours. The majority of the women stated that their expectations of labour were not met and the unexpectedness of events, i.e. medical interventions, pain, led to feelings of not being in control. Crowe and von Baeyer (1989) suggest that inaccurate expectations may lead to shock during childbirth and the present findings support previous research (e.g. Stewart, 1982; Green et aL, 1988) suggesting that there is a significant relationship between expectations and emotional well-being.

Fear baby will be harmed. Women's beliefs that their baby may be harmed related to the emergency nature of medical interventions, fear that they would deliver the baby alone and belief that electronic monitoring indicated fetal distress. None of the women did deliver alone and the monitors did not always indicate distress, which emphasizes the importance of women's subjective interpretation in influencing whether events are perceived as traumatic (Feinstein andDolan, 1991).

Results also indicate significant positive relationships between PTSD symptoms and thoughts relating to threat to infant's life and fear of infant being damaged. This is consistent with DSM IVs (American Psychological Association, 1994) criteria which suggests that PTSD stressors can relate to threatened death, injury or threatened physical integrity of other persons. Although Lyons (1998) did not find a relationship between concerns over baby's welfare and PTSD symptoms, other research (Moleman et aL, 1992; Ryding, 1993) has also shown this to be an important factor in the development of PTSD symptoms.

Core category 'out of control'

The belief relating to control was maintained when action strategies were either not employed or failed. The present study identified that the properties of feeling out of control related to feelings of helplessness and distinguished between out of control of events and of own behaviour. These concepts differ from the 'internal' and 'external' control categories identified by the locus of control literature which suggests that a person perceives what is happening to them as either being within their own control or being controlled by others. Locus of control measures were not taken during this study.

Green et al. (1988) argue that sense of control over external events is frequently lost as hospitals and medical interventions institutionalize labour and options actually available highly constrain choices. Also, the fact that the baby has to be born and there is not the choice whether to continue with labour or not, limits women's real control over events.

Studies on PTSD following childbirth (e.g. Lyons, 1998; Moleman et ai, 1992; Ballard etal., 1995) also reported that women felt out of control during labour. Moleman et al. (1992) and Ryding (1993) also discuss women who reported dissociative feelings and moments of loss of control of themselves. Women's reports that they felt labour was traumatic because they were helpless links in with DSM IV (American Psychiatric Association, 1994) criteria that the traumatic situation should involve fear, helplessness or horror and Menage's (1993) study indicating feelings of powerlessness as an important trauma variable following obstetric procedures. Many women in the present study also stated they experienced fear and horror, but all discussed feelings of helplessness.

Distress reducing strategies following labour

Qualitative analysis of the process of experiencing a traumatic labour suggested that thinking and talking about the event following labour, to gain knowledge and

emotional support, were effective in reducing distress. The information-processing model of PTSD (Horowitz et al., 1980) suggests that traumatic information is re-experienced until information is fully processed, therefore, by using these strategies women are processing information about their traumatic labour experience. These results can be linked with previous findings that individuals who fail to use problem-solving strategies following trauma are more likely to experience psychological problems (Solomon et al., 1988).

Suls and Fletcher (1985) found that non-avoidant strategies are more adaptive than avoidant coping strategies and this is supported by the childbirth literature which showed greater use of escape—avoidance strategies in women who became depressed postnatally (Gotlib et al., 1991).

Positive reinterpretation of events, i.e. focusing on the healthy baby that resulted, reduced distress, but dwelling on the events found traumatic and being unable to admit to difficulty coping maintained distress, indicating that cognitions were very important in predicting distress.

Allen et al. (submitted) found significant inverse relationships between PTSD symptoms and coping strategies relating to; active coping, planning, humour, seeking emotional and instrumental support and behavioural and mental disengagement as measured by the COPE (Carver et al., 1989). These findings are supported by the present study's qualitative data that show distress continues for women who avoided thinking and talking about their labour.

Using the Perceived Social Support Scales (Procidano and Heller, 1983) Alien et al. (submitted) found that perceived social support from friends and from family showed an inverse relationship with PTSD symptoms following labour. The present qualitative data expanded this finding to show that there is a complex interaction between

availability and quality of social support and the ability to ask for support and when PTSD symptoms are experienced relationships are impacted and support is likely to diminish. Amount of support was also shown to be important as access to only one source of support is not effective in reducing distress. Many women who had only spoken to one person, usually their partner, stated that after a while they felt they should stop talking about the event for fear of their partner getting bored, angry etc.

Support also includes practical help and it is interesting to note that all the women with continued distress had no-one who gave them assistance with looking after their baby. This supports previous findings that social support is important in the development and maintenance of PTSD (Jones and Barlow, 1990). Even if delayed, eventual successful accessing of sources of support was effective in mediating distress.

This study's findings can therefore be explained within the framework of the psycho-social model of PTSD (Green etal., 1985) which incorporates the information-processing model, but also asserts that individual characteristics and environmental surroundings are important variables affecting speed of recovery from trauma.

Consequences of experiencing a traumatic labour

Where distress was short-lived, consequences of experiencing a traumatic labour were limited and related only to fear of future pregnancy. Not surprisingly, the greater number of effects were experienced by women with clinically significant PTSD symptoms, although women who had been, but were no longer distressed, also reported that they had experienced an impact on their own behaviour, fear of future childbirth and in their relationships with others.

Reported impact on themselves related to avoidant behaviour, intrusive imagery concerning the labour and disordered arousal. Unhelpful thoughts maintaining distress related to self-blame, inability to cope and mistrust of others, whilst reported emotions included anger, tearfulness, guilt, panic and feeling stressed. These effects link in with

typical PTSD symptoms (DSM IV; American Psychological Association, 1994) giving credence to the assertion that the women were experiencing PTSD symptoms rather than other psychological distress.

The results also support previous findings that experiencing a traumatic birth can impact relationships with partners (Stewart, 1982; O'Driscoll, 1994) and infant (Affonso, 1987; Ballard etal., 1995). Previous literature has not reported the impact on relationships with others, but this study found that participants reported having less patience with others and lacked resources to sympathize with others' problems as they found it difficult to cope with their own.

A finding of major importance was that as a direct result of their traumatic labour experience, half of the women would either not have any more children or would only contemplate it if elective Caesareans were available. This supports previous findings of this phenomenon (Niven, 1992; Menage, 1993; Ryding, 1993; Lyons, 1998).

Implications of results

The results indicate that childbirth is consistent with definitions of stresses for PTSD. This has important implications for prevention and therapeutic intervention. During labour women attempted, but failed, to access practical and emotional support to feel in control. Maternity professionals should therefore attempt to produce an environment that provides optimal support and feelings of being in control, although it is acknowledged that practicalities, i.e. staff shortages, busy wards, mean that this ideal is not always possible.

However, professionals, i.e. midwives, doctors, health visitors, need to be aware of the possibility that women may develop PTSD symptoms so screening and psychological interventions can be offered. Antenatal classes may also be appropriate

places to provide women and their birth partner with information pertaining to PTSD reactions and sources of help if needed.

Training is also required to address the issue of women with previous traumatic experiences being more susceptible to trauma in subsequent labours. Detection of such women would enable professionals to be more attentive in allaying fears during labour, hopefully increasing the women's sense of control.

The study has shown that it is not just the events during labour that are important but the meaning women attach to them that make them traumatic. Oakley (1980) suggests that stress and the need to use coping strategies are linked to typical experiences of motherhood and the present results are therefore consistent with the psychosocial model of PTSD (Green et al., 1985) which suggests that individuals' characteristics are shaped by their past experiences, expectations, coping styles and social environment which all influence the meaning that is attached to events. The women in the study who experienced a traumatic labour but were not distressed 10 months later had access to adequate social support and used coping strategies relating to eliciting support from more than one source, the use of non-avoidant strategies and adoption of problem-focused strategies relating to active coping and planning.

British Psychological Society guidelines (British Psychological Society, 1995) relating to clinical psychology services to obstetrics and gynaecology state that services should be provided to women with post traumatic stress reactions following traumatic births and the present results are useful in guiding intervention geared to the use of the above-mentioned strategies. Distress-reducing strategies also include the provision of emotional and practical support to enable women to talk through their experience and gain information about labour so events can be made sense of and processed. It may also be appropriate for midwives to provide interventions shortly after labour to prevent development of PTSD symptoms.

Some areas, e.g. Oxford and Winchester (Smith and Armstrong, 1995) already provide women, distressed or not, with a service to access more information so that they can gain a better understanding of their labours.

Critical review and future directions

The following methodological constraints require comment.

The small sample size for the second stage of the study and characteristics of the participants, i.e. they resided in a rural and small urban area and tended to be from higher socio-economic groupings than the general population, clearly limit the conclusions that can be drawn from the study. However, if clinically significant levels of PTSD symptoms can be found in this sample, the likelihood is that incidence within the general population will be greater.

Validation of the findings by replication of the study using a larger sample size, including greater variation in participants' demographic characteristics is therefore required. Replication of the research using a multi-centre study would also show whether the findings can be generalized and do not just relate to the practices of one hospital's obstetrics and gynaecology department.

Stronger inferences might have been made from the data exploring the processes during traumatic labours if comparisons had been made between labours perceived as traumatic and non-traumatic. However, the main focus of the study was an investigation of traumatic labour and PTSD symptoms and such a comparison was outside the remit of the study, although this area warrants further investigation.

Research into PTSD symptoms following labour is in its infancy and possible directions for future research also include investigating the course of symptoms and longer-term consequences. Also, as the results indicate that accessing emotional and

practical support from more than one source, the use of non-avoidant strategies and adoption of problem-focused coping strategies may reduce distress, evaluation of such therapeutic interventions promoting the use of these strategies is necessary to establish their value.

Acknowledgements: I would like to acknowledge Dr Maggie Cormack, Peter Elliott and Dr Nigel North for their advice and support and Salisbury District Health Visitors for their assistance with the first stage data collection.

References

Affonso, D. D. (1987) Assessment of maternal post-partum adaption. *Public Health Nursing,* 4: 9-20.

Alien, S., North, N. and Elliott, P. (Submitted for publication) An investigation of the relationship between PTSD and postnatal depression symptoms and factors mediating the development of PTSD symptoms following traumatic labour experiences. Paper available from Sarah Alien, Department of Psychology, Southampton University, Hants SP17 1BJ.

American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders IV.* American Psychiatric Association, Washington, DC.

Ballard, C. G., Stanley, A. K. and Brockington, I. F. (1995) Post traumatic stress disorder (PTSD) after childbirth. *British Journal of Psychiatry,* **166:** 525-528.

Bandura, A. (1977) Self-efficacy: towards a unifying theory of behaviour change. *Psychological Review,* 84: 191-215.

Beech, B. E. and Robinson, J. (1985) Nightmares following childbirth. *British Journal of Psychiatry,* 147: 586.

British Psychological Society (1995) Purchasing clinical psychology services: services to obstetrics and gynaecology. *Briefing Paper No. 8.* British Psychological Society, Leicester.

Carver, C. S., Scheier, M. F. andWeintraub, J. K. (1989) Assessing coping strategies: a theoretically-based approach. *Journal of Personality and Social Psychology,* **56:** 267—283.

Cox, J. L., Holden, J. M. and Sagovsky, R. (1987). Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry,* **150:** 782-786.

Crompton, J. (1996a) Post-traumatic stress disorder and childbirth. *British Journal of Midwifery,* 4(6): 290-294.

Crompton, J. (1996b) Post-traumatic stress disorder and childbirth: 2. *British Journal of Midwifery,* 4(7): 354-356 and 373.

Crowe, K. and von Baeyer, C. (1989) Predictors of a positive childbirth experience. *Birth,* **16:** 59-63.

Dey, I. (1993) *Qualitative Data Analysis.* Routledge, London.

Feinstein, A. and Dolan, R. (1991) Predictors of post-traumatic stress disorder following physical trauma: an examination of the stressor criterion. *Psychological Medicine,* **21:** 85—91.

Fisch, R. Z. andTadmore, O. (1989) latrogenic post-traumatic stress disorder. *Lancet, 2:* 8676, 1397.

Gotlib, I. H., Whiffen, V. E., Wallace, P. M. and Mount, J. H. (1991) Prospective investigation of post partum depression: factors involved in onset and recovery. *Journal of Abnormal Psychology,* **100:** 122-132.

Green, B. L., Wilson, J. P. and Lindy, J. D. (1985) Conceptualizing post-traumatic stress disorder: a psychosocial framework. In: Figley, C. R. (Ed.), *Trauma and its Wake: the study of treatment of post-traumatic stress disorder.* Brunner/Mazel, New York.

Green, J. M., Coupland, V. A. and Kitzinger, J. V. (1988) *Great Expectations: a prospective study of women's expectations and experiences of childbirth.* Child Care and Development Group,

Cambridge.
Horowitz, M. J., Wilner, N. and Alvarez, W. (1979) Revised Impact of Event Scale: a measure of subjective stress. *Psychosomatic Medicine,* 41: 209-218.
Horowitz, M. J., Wilner, N., Kaltreides, N. and Alvarez, W. (1980) Signs and symptoms of post-traumatic stress disorders. *Archives of General Psychiatry,* 37: 85—92.
Jones, J. C. and Barlow, D. H. (1990) The etiology of post-traumatic stress disorder. *Clinical Psychology Review,* **10:** 299-328.
Kitzinger, S. (1975) *Some Mothers' Experiences of Induced Labour.* National Childbirth Trust, London. Kitzinger, S. (1992) Birth and violence against women. In: Roberts, H. (Ed.), *Women's Health*
Matters, pp. 63-80. Routledge, London.
Lyons, S. (1998) A prospective study of the occurrence of post traumatic stress disorder symptoms one month after childbirth in a group of 42 first-time mothers. *Journal of Reproductive and Infant Psychology,* 16: 89-105.
McFarlane, A. C. (1988) The longitudinal course of post traumatic stress morbidity: the range of outcomes and their predictors. *Journal of Nervous Mental Disease,* 152: 110—121.
Menage, J. (1993) Post-traumatic stress disorder in women who have undergone obstetric and/ or gynaecological procedures. *Journal of Reproductive and Infant Psychology,* 11: 221—228.
Moleman, N., van der Hart, O. and van der Kolk, B. A. (1992) The partus stress reaction: a neglected etiological factor in post partum psychiatric disorders. *Journal of Nervous and Mental Disease,* 180: 271-272.
Niven, C. (1992) *Psychological Care for Families: before, during and after the birth.* Butterworth-Heinemann, Oxford.
Oakley, A. (1980) *Women Confined: towards a sociology of childbirth.* Martin Robertson, Oxford. Oakley, A. and Rajan, L. (1991) Social class and social support: the same or different?. *Sociology,*
25: 31-59. O'Driscoll, M. (1994) Midwives, childbirth and sexuality. *British Journal of Midwifery, 2:* 29-
41. Parkes, K. R. (1984) Locus of control, cognative appraisal, and coping in stressful episodes. *Journal of Personality and Social Psychology,* **46:** 655-668. Procidano, M. E. and Heller, K. (1983) Measures of
perceived social support from friends and
from family: three validation studies. *Americanjournalof Community Psychology,* 11: 1—24. Quine, L., Rutter, D. R. and Gowen, S. (1993) Women's satisfaction with the quality of the
birth experience: a prospective study of social and psychological predictors. *Journal of Reproductive and Infant Psychology,* 11: 107-113-
Ralph, K. and Alexander, J. (1994) Born under stress. *Nursing Times,* 90(12): 28-30. Ryding, E. L. (1993) Investigation of 33 women who demanded a Caesarean section for personal
reasons. *Acta Obstetricia et Gynecologia Scandinavica,* 72: 280—285.
Schreiber. S. and Galai-Gat, T. (1993) Uncontrolled pain following physical injury as the core-trauma in post traumatic stress disorder. *Pain,* 54: 107—110. Shalev, A. Y., Schreiber, S., Galai-Gat, T. and Melmed, R. N. (1993) Post-traumatic stress
disorder following medical events. *British Journal of Clinical Psychology,* **32:** 247-253. Sieber, S. D. (1973). The integration of fieldwork and survey methods. *American Journal of*
Sociology, 78: 1335-1359.
Smith, J. A. and Armstrong, C. (1995) Birth afterthoughts: the case for debriefing after childbirth. Transcript of NCT Fareham Branch Study Day, April 1995.
Soloman, Z., Mikulincer, M. and Avitzur, E. (1988) Coping, locus of control, social support, and combat-related post-traumatic stress disorder: a prospective study. *Journal of Personality and Social Psychology,* 55: 279-285.
Stewart, D. (1982). Psychiatric symptoms following attempted natural childbirth. *Canadian Medical Association Journal,* 127: 713-716.
Strauss, A. L. andCorbin.J. M. (1990) *Basics of Qualitative Research: grounded theory proceduresand techniques.* Sage, Menlo Park, CA.
Suls, J. and Fletcher, B. (1985) The relative efficacy of avoidant and non-avoidant coping strategies: a meta-analysis. *Health Psychology,* 4: 249—288.