Cognitive behaviour therapy for postnatal post-traumatic stress disorder: case studies

Susan Ayers¹, Kirstie McKenzie-McHarg² & Andrew Eagle³

¹ Professor of Maternal and Child Health, City University London

² Consultant Clinical Psychologist, Warwick Hospital

³ Consultant Clinical Psychologist, Central and North West London NHS Foundation Trust

Please cite this paper as:

ABSTRACT

**Background:** Approximately 1 to 2% of women suffer from postnatal post-traumatic stress disorder (PTSD) with wide ranging consequences for these women and their families (1). Appropriate treatment of women who have difficult or traumatic births is not yet established. Evidence in other populations shows cognitive behaviour therapy (CBT) is effective for PTSD and it is therefore the recommended treatment (2). However, a recent review of treatments for postnatal distress concluded that descriptions of postnatal counseling are largely generalized and non-specific, which makes them difficult to assess or replicate (3).

**Aims & Method:** The current paper therefore aims to describe the use of CBT interventions to treat postnatal distress, and to illustrate common themes or issues that occur in postnatal PTSD. This paper reports two case studies of women with postnatal PTSD and their treatment using CBT.

**Conclusions:** In these cases, CBT was an effective treatment for postnatal PTSD. A number of implications are drawn for the management of pregnancy and labour.

**Key words:** birth, postnatal, post-traumatic stress disorder, cognitive behaviour therapy
Introduction

Post-traumatic stress disorder (PTSD) following childbirth is increasingly recognised. Research evidence suggests that approximately 30% of women will have moderate or severe symptoms of intrusions or avoidance following childbirth and 1% to 2% of women develop diagnostic PTSD that persists longer than six months after birth (4 - 9). It is uncertain whether postnatal PTSD is etiologically similar to PTSD following other events, and therefore whether similar treatment is appropriate. Evidence suggests that women with symptoms of PTSD after birth tend to have higher symptoms of intrusions and lower symptoms of avoidance than PTSD in other medical patients (10). In addition, a larger proportion of women appear to recover spontaneously from postnatal symptoms of PTSD than women following other traumatic events such as rape (11, 12).

Research looking at factors associated with postnatal PTSD finds similar vulnerability factors to those found for PTSD following other events, such as a history of trauma or psychological problems. This indicates that postnatal PTSD is likely to have a similar etiology to PTSD after other events. In addition, postnatal PTSD is associated with obstetric factors, such as type of delivery, but not consistently so (1). These findings suggest the usual psychological approach to mental health, where it is assumed that vulnerability will be exacerbated in the presence of high stress (a diathesis-stress approach), is also appropriate for postnatal PTSD. This approach emphasises that whether a woman develops PTSD will be influenced to varying degrees by pre-existing vulnerability and beliefs, the events of birth, and postnatal factors such as additional stress, support, and the meaning attached to the events of birth and initial symptoms of PTSD.
In the UK, 94% of hospitals provide postnatal services for women who have difficult births. Most of these services (78%) are midwife-led or obstetrician-led debriefing services (13) which usually consist of women going through their medical notes with a midwife or doctor to get a better understanding of what happened during birth. Although medical debriefing is not the same as psychological debriefing it is similar in that it is usually one session only, which could increase distress and leave women without further support.

Research into the efficacy of postnatal debriefing has mixed results. Five randomised controlled trials have found either that debriefing reduces symptoms of postnatal depression (14) and PTSD (15) or that it has no effect (16-18). Two of the trials that found no effect had samples of over 1,000 women. Current UK guidelines therefore recommend against the use of debriefing for PTSD (2). Internationally, most guidelines on the treatment of PTSD recommend the use of psychotherapy such as cognitive behaviour therapy (CBT) and, in severe cases or cases with comorbidity, medication (usually selective serotonin reuptake inhibitors) (2, 19).

A recent review of psychological interventions for postnatal distress concluded that descriptions of interventions are largely generalized and non-specific, which makes them difficult to replicate (3). A key issue in deciding how to treat postnatal PTSD is whether it is the same as PTSD following other events; and therefore whether treatment protocols developed for PTSD in other populations are appropriate for postnatal women. The fact that postnatal PTSD appears to be etiologically similar to PTSD following other events supports the use of CBT for postnatal PTSD. However, childbirth is qualitatively different to other traumatic events because it can be very positive for some women. Even when childbirth is perceived as traumatic, women often perceive the baby as a positive outcome.
There are also issues in treating postnatal PTSD that are probably unique to this group, both in terms of recurrent themes that arise, and the effect it has on women’s relationships with others. For example, sexual avoidance and secondary fear of childbirth (tocophobia) have been reported\(^{(20, 21)}\). Qualitative research suggests that attachment problems can occur, but not consistently so and they vary in nature\(^{(22, 23)}\). For example, some women do not bond with their baby and subsequently report feelings of guilt and not being normal. Conversely, some women may overcompensate and become anxiously attached to the baby, especially if birth involves threat to the life of the infant.

Similar to PTSD following other events, women with postnatal PTSD also differ in their presentation. Some women have predominantly primary emotions, such as fear, and others have predominantly secondary emotions, such as shame or guilt, which are determined more by postnatal appraisal of events and the woman’s role in these events. These different presentations have implications for treatment, as fear may be more responsive to exposure techniques, whereas secondary emotions may respond better to cognitive reappraisal techniques\(^{(24)}\). Individual differences in symptom presentation and issues that are unique to postnatal PTSD therefore mean CBT protocols should be applied flexibly in response to each woman’s experience and needs.

The current paper aims to illustrate common themes or issues that occur in postnatal PTSD and the use of CBT with this group. This is achieved by examining two case studies of women who received CBT for postnatal PTSD: one case in which fear predominated, and a second case in which anger and shame predominated. We use these case studies to highlight common themes or issues that occur in postnatal PTSD, to illustrate the use of CBT interventions with this group, and to emphasise the importance of a diathesis-stress understanding of postnatal PTSD.
Case One: Sarah

On presentation, Sarah was 35 years old. Her daughter was born 14 months previously and was the result of a planned pregnancy. Sarah had a termination of an unwanted pregnancy when she was 19 years old, which she kept a secret for 16 years because she thought people would judge her negatively. Sarah was very anxious during pregnancy because she was scared of disclosing the abortion and worried that something might go wrong with the pregnancy as retribution for having an abortion.

During her pregnancy Sarah had frequent bleeding and a colposcopy was carried out to investigate. Sarah’s waters broke before term and her labour was induced three days later. There was confusion over the induction and Sarah arrived at hospital for what she thought was a routine check and was immediately admitted for induction. At this point she panicked because she was unprepared, had no personal belongings with her, and her husband was not present. The midwife attending Sarah’s birth was not sympathetic to Sarah’s high levels of anxiety. Following a painful internal examination during which Sarah cried and asked the midwife to stop, the midwife said “if you think that’s painful, what are you going to be like giving birth?” From this point onwards Sarah’s labour and delivery was characterised by pain, very high levels of distress, and fear of the midwife who continued to be brusque and unsympathetic towards Sarah. Sarah said ‘the midwife was barking at me…I brought my barriers up completely and was petrified… I didn’t know what was right and what was wrong’.

After 25 hours Sarah was only one centimetre dilated so her daughter was delivered by emergency caesarean section, during which Sarah thought she might die. Sarah reported starting to feel the caesarean half way through the procedure and was given morphine. She reported dissociating during the caesarean and cannot remember anything for 12 hours after the delivery. She said the first few months after the birth
“are a blur” and it took her a year to bond with her daughter. The main themes of Sarah’s birth experience seemed to be (i) feeling terrified, vulnerable and out of control; (ii) high levels of confusion and later dissociation; and (iii) confirmation of her belief that others will judge her and hurt her through her experience with the midwife.

Four months after birth Sarah was diagnosed with postnatal depression by her primary care physician. She was treated with antidepressants and attended a local support group for postnatal depression. When Sarah first attended therapy, 14 months after birth, she was highly distressed because coming to hospital triggered memories of her birth experience. During this session she appeared to be reliving the birth experience and was frightened, crying and shaking. She had the full range of PTSD symptoms in the form of flashbacks, nightmares, strong physical and emotional reactions to reminders of birth, feeling emotionally numb yet crying all the time. Her flashbacks were about seeing herself lying in the delivery room, feeling helpless and terrified, with the midwife coming in through the door. Sarah had only mild symptoms of depression at the time she attended therapy and was reducing her dose of antidepressants.

The formulation put together during therapy with Sarah is shown in Figure 1 and includes premorbid events and beliefs. A formulation is formally defined as “a provisional map of a person’s presenting problems that describes the territory of the problems and explains the processes that cause and maintain the problems” (26). Figure 1 shows that Sarah had core beliefs about herself as being stupid and a failure; and about others that they would judge her and hurt her. Sarah’s beliefs were reinforced by the abortion, her birth experience, and being diagnosed as having postnatal depression, which she interpreted as meaning she was a failure and couldn’t cope. Sarah therefore had conditional beliefs such as “If I tell people about the abortion/birth/depression they
will judge me”, “If I am upset people will think I am weak”. Sarah had frequent negative automatic thoughts that were congruent with her core beliefs such as “I can’t cope”, “I am a failure” and about others, such as “they don’t want to know”, “how could they not care?” Sarah’s compensatory strategies were to conceal the abortion, birth, or mental health problems to avoid being judged.

Treatment consisted of using different cognitive and behavioural techniques to address Sarah’s symptoms of PTSD and underlying beliefs about herself and others. An anonymous survey was carried out of other’s opinions of Sarah’s abortion to challenge her belief that others would judge her. This survey described the circumstances under which Sarah fell pregnant and had an abortion and asked people what they would think of her, whether they would judge her, and what they would do in the same situation. 16 people who did not know Sarah completed the survey and responses included pro-abortion and anti-abortion views. This survey dramatically changed Sarah’s beliefs about herself, the abortion, what others would think of her, and the importance she placed on other’s views.

Reliving exercises were carried out in sessions where Sarah went over the events of the birth. Hotspots (particularly emotive events during the birth) were identified. The main hotspot was around the midwife’s actions and Sarah’s continued fear of the midwife. Exercises were therefore used to change Sarah’s appraisals of these events, such as using a role-play to act out confronting the midwife and reduce Sarah’s fear. A visit was made to the labour ward to also help Sarah overcome her fear and avoidance. Visualisation exercises were used to re.script her flashbacks (e.g. imagining different healthcare professionals in the delivery room with her, instead of the midwife) and positive reformulation was used to consolidate changes in Sarah’s beliefs. Ten sessions
of treatment resulted in Sarah’s PTSD symptoms disappearing and her beliefs about herself and others being modified.

Case Two: Juliet

On presentation, Juliet was 32 years old. Her daughter had been born 8 months earlier and was the result of a planned first pregnancy. Juliet’s pregnancy was straightforward. Her labour lasted 32 hours, and Juliet experienced difficulty breathing due to her asthma. The midwife called the obstetrician as labour was progressing slowly and Juliet was offered the option of caesarean section “at some point in the next few hours if things do not speed up”. Juliet felt that she was not coping well, and wanted a caesarean immediately, but lacked the confidence to ask. Her husband encouraged her to continue with a vaginal birth, and she felt very resentful about this. An instrumental delivery, using forceps, was thought necessary so an episiotomy was done to prevent tearing. Juliet was then rushed into the operating theatre as the baby appeared to be in distress, and it was thought that an emergency caesarean section would need to be performed. However, her daughter was born vaginally with forceps and Juliet sustained a third degree tear. On the second postnatal day, Juliet experienced faecal incontinence. She was extremely embarrassed and ashamed by this and felt humiliated. She continued to experience incontinence for the first postnatal week, and was discharged home on day 8. She was depressed by this time, and spent the first two weeks at home in bed, refusing to get up. Her relationship with her daughter remained positive.

Although Juliet was coping better when she presented for therapy, there were still multiple problems. Juliet felt dirty most of the time. She blamed herself and her husband for the traumatic birth, believing that they should have demanded a caesarean
section earlier in the labour. She additionally blamed the hospital staff for not intervening more quickly. Juliet and her husband were fighting a great deal of the time and the couple had not been sexually intimate since the birth. Juliet was still experiencing some incontinence of urine on a very occasional basis, and was incontinent of wind. She was receiving regular physiotherapy and physically her symptoms were improving. However, her confidence and self-esteem remained extremely low and she was still moderately depressed as well as experiencing the full range of PTSD symptoms in the form of intense anger outbursts, poor sleep, flashbacks to the postnatal incontinence, avoidance of the labour ward and emotional numbing in addition to a degree of postnatal depression.

Appointments were initially offered to Juliet alone, but her husband began attending appointments soon afterwards as many of the problems were shared. On completing an assessment, a formulation was agreed with the couple, which is shown in Figure 2.

- insert Figure 2 about here -

Figure 2 shows the way in which Juliet’s thoughts about her experience of faecal incontinence led to a complex pathway with two separate negative outcomes, both mediated by her feeling of extreme humiliation. As a first outcome, Juliet felt a lack of self-confidence stemming from her belief that she was dirty, and her humiliation about this. She believed that she smelled bad, and that others did not want to spend time with her. As a result, she had withdrawn from all her social activities and her self-confidence was very low. As a second outcome, the humiliation, coupled with her own vulnerability, led her to think that it was her own fault that she had experienced the incontinence. She felt that she should have been more demanding in terms of wanting a caesarean section. Her belief that she could have changed her own negative outcome
led her to feel intensely angry and helpless. These feelings were bolstered by a negative spiral in which Juliet would hear stories of other negative birth outcomes from friends, family or in the media, feeding her thought that these negative events should not occur ever again. Each time she heard another story, her feelings of anger and helplessness intensified.

Treatment used different techniques in an effort to address Juliet’s symptoms of PTSD and depression as well as addressing the issues of anger and low self-confidence. Several visits to the labour ward and the theatre were made to overcome Juliet’s avoidant behaviour. A reliving exercise was undertaken using visualisation. This was taped and Juliet listened to the tape on a regular basis until her distress began to lessen, in conjunction with cognitive reappraisal in order to manage her negative beliefs about herself. Juliet was encouraged to increase her activity and exercise level to help her manage her depression. Couples therapy was also used as the relationship between Juliet and her husband had become increasingly strained and there was no sexual intimacy. Approximately 12 sessions of treatment saw Juliet’s PTSD symptoms disappear; her depression lessen, and her relationship with her husband much improved.
Discussion

These case studies highlight a number of differences and similarities between women with postnatal PTSD. Sarah’s case is an example of PTSD where fear predominates, although she did have shame and anxiety about the abortion, which predated birth. Sarah’s case clearly shows how events in Sarah’s past and her core beliefs influenced her perception and experience of both pregnancy and birth. It therefore highlights the importance of taking a diathesis-stress approach to postnatal PTSD. Juliet’s case is an example of PTSD where anger and shame predominates. These emotions seemed to be the result of the nature of the traumatic event (faecal incontinence) and the meaning that Juliet attached to this, such as what it meant about her. The importance of the meaning attached to events in whether women develop postnatal PTSD is illustrated by the finding that 5% to 9% of women suffer from faecal incontinence after birth (25) yet only 1% to 2% of women develop postnatal PTSD. Juliet’s formulation is therefore more specific to the birth event and her subsequent thoughts and emotions.

This use of formulations is central to CBT. Formulations are developed in conjunction with the patient to summarise important factors in the development of the problem, and to show how thoughts, emotions, and behaviour interact to perpetuate this problem. Formulations help inform women about the CBT model, understand how their current behaviour maintains the problem, and are used to guide treatment (for example, through targeting particular thought processes or behaviours that maintain the problem). However, as these examples show, formulations can be used to look at specific thoughts and emotions in response to an event (as in Juliet’s case), or to look more generally at premorbid events and beliefs and how they interact with an event to determine a negative cycle of thoughts, emotions and behaviour (as in Sarah’s case). For example,
with Sarah it was clear that treatment should also address her thoughts and feelings about the termination of pregnancy because it strongly influenced her current beliefs and appraisals of herself and others.

These case studies also illustrate how treatment is tailored to individual needs. Both cases involved using reliving and exposure to lessen the distress and avoidance associated with birth. For example, both women visited the labour ward, which helped them face the anxiety associated with the birth and therefore decrease their avoidance of reminders of the birth. Cognitive reappraisal was also used in both cases to change appraisals of birth, themselves, and others. This combination of reliving, exposure, and cognitive reappraisal techniques is central to the treatment of PTSD using CBT. Other techniques used differed between the two cases. Juliet was encouraged to increase activity levels to tackle her depression and given couples therapy with her husband to address the problems between them. Sarah’s treatment included a behavioural experiment (survey) to challenge her beliefs about the abortion, and role-play to confront her fear of the midwife who attended her birth.

In general, these case studies illustrate how the role of beliefs and appraisal is central in postnatal PTSD. In one theory of PTSD, Janoff-Bulman (1992) highlights the importance of existing assumptions and how a traumatic event can shatter these assumptions. This seems particularly relevant to postnatal PTSD where some women, like Sarah, have shattered assumptions about their own mortality and trust in health professionals. This can lead to beliefs about lack of safety because women have been in a situation where they thought they might die at an unexpectedly young age (i.e. increased threat) and health professionals were not able to prevent this or, in some cases, made the problem worse (i.e. shattering of the assumption that if their life is threatened health professionals will save them). Women therefore have the combined
problem of increased threat (e.g. “I could die at any time”) coupled with a loss of confidence in health professionals (e.g. “they won’t help me/save me”). This leads to ongoing anxiety and fear of future illness, pregnancy and birth. In a few cases this can result in severe health anxiety as well as postnatal PTSD.

Implications for the management of pregnancy and birth

These case studies highlight many factors that are relevant to health professionals involved in the management of pregnancy and birth. Firstly, Sarah’s case illustrates how previous events and beliefs will influence women’s perceptions and emotional responses to pregnancy and birth, as well as their expectations of birth. Therefore, health professionals need to be aware that relatively simple procedures, like reporting obstetric or sexual history, can be very difficult for some women and make them highly anxious. Health professionals also need to ensure that procedures such as developing a birth plan are completed within a context of explanation that the outcome may not be as planned for numerous reasons. Similarly, sensitive management of events during birth can make a critical difference to women’s experience and appraisal of these events. For example, if Juliet’s faecal incontinence had been normalised and dealt with more sympathetically at the time she might not have appraised it as being her fault. Similarly, if Sarah had had a supportive midwife or been reassured that she would not die during the emergency caesarean section she might not have experienced such intense fear and life threat. Research has established that when people are anxious they are more likely to notice threat or interpret ambiguous events as threatening. Therefore, when dealing with emergency situations that are not life threatening, health professionals should try to reassure women of this fact.

Secondly, Juliet’s case illustrates that postnatal PTSD can arise not only from the labour and delivery but also from the consequences of birth. Health professionals
therefore need to be aware that women are still vulnerable to trauma in the postnatal period if there are ongoing problems with themselves and/or the baby. Related to this is that severity of obstetric events does not necessarily determine whether women get postnatal PTSD. For example, these case studies illustrate how a woman does not have to be in a situation where her life, or the baby’s life, is actually threatened for her to perceive it as such and to become traumatised.

Third, these case studies illustrate how postnatal PTSD an occur in addition to postnatal depression. PTSD is often comorbid with depression and it is unclear whether depression develops at the same time, or as a consequence of PTSD \(^{(29, 30)}\). Despite this, Sarah’s case shows it is possible for symptoms of depression to be treated and reduce yet PTSD symptoms remain. This raises issues around the recognition and diagnosis of both postnatal PTSD and postnatal depression. Increasing awareness of postnatal PTSD among primary care physicians and community practitioners should help address this.

More generally, it is important to recognise that women with postnatal PTSD are very anxious and avoidant of reminders of birth. This, in turn, can result in avoidance of contact with health professionals and hospitals or women being very anxious when they do have contact with health professionals in these settings. This, combined with loss of confidence in health professionals, can also mean women are very sensitive to feeling judged, not listened to, or not taken seriously.

Finally, these case studies demonstrate how CBT can be an effective treatment for postnatal PTSD, particularly if protocols and techniques are tailored to the issues that arise for different individuals. It is possible that counseling would also be effective for postnatal PTSD, although studies of counselling women after emergency caesarean do not indicate that it is effective for PTSD symptoms \(^{(31)}\). There is therefore a need for further research evaluating the efficacy of different therapeutic treatments, such as
counseling and CBT, for postnatal PTSD. The success of the case studies reported here, however, supports the drive for perinatal mental health services to be available to women, as proposed by a recent UK report on maternal deaths \(^{(32)}\). Possibilities of screening women between one and three months after birth and targeting interventions at women who score highly on PTSD measures also need to be explored.

In conclusion, these case studies highlight a number of similarities and differences between women with postnatal PTSD and we have used them to discuss common themes and illustrate the application of CBT to postnatal PTSD. They also emphasise the importance of taking a diathesis-stress approach to postnatal PTSD. A number of implications can be drawn from these case studies for the management of pregnancy and birth and for clinical practice. Increasing awareness of postnatal PTSD will also inform the diagnosis and treatment of women with this disorder.
References


Acknowledgements

The authors gratefully acknowledge the two women and their partners who agreed to have their case and treatment discussed in this article, without whom it would not have been possible.
Figure 1: Sarah’s formulation

**Key history**
Termination of pregnancy aged 19

**Core beliefs**
*Self:* I am stupid; I am a failure
*Others:* are rejecting; critical; will judge me

**Underlying assumptions**
If I tell people about the abortion they will judge me
If I am upset people will think I’m weak
If I show my emotions people will think I’m stupid

**Trigger events**
Traumatic birth
Reminders of the birth or abortion

**Behaviour**
Don’t tell people
Keep everything inside

**Thoughts**
“I am a failure”
“I can’t cope”
“If I tell people they will judge me”

**Emotions**
Anxious
Panicky
Depressed
Figure 2: Juliet’s formulation

Traumatic event (postnatal incontinence)

“I am dirty”

Shame

Embarrassment

Hears stories of others

Anger/Helplessness

“This shouldn’t happen to others”

“it is my fault that this happened to me”

Humiliation

Loss of self-confidence

Withdrawal from activities, loss of assertiveness