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# An exploration of the impact of PTSD following childbirth and the suitability of writing therapy as a therapeutic tool

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AN EXPLORATION OF THE IMPACT OF PTSD  
FOLLOWING CHILDBIRTH AND THE SUITABILITY OF  
WRITING AS A THERAPEUTIC TOOL

by

SUSANNE PEELER

A thesis submitted to Plymouth University in  
partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

Faculty of  
Health and Human Sciences

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## **Abstract**

### **An Exploration of the Impact of PTSD following Childbirth and the Suitability of Writing as a Therapeutic Tool.**

**Susanne Peeler**

**Background:** Postnatal PTSD affects between 1 and 6% of women, whereas 30% are partially symptomatic. The mental health of new mothers is of public health concern as it could affect the marital relationship and the behavioural and emotional health of children. Little research has explored emotional regulation difficulties as predictors for postnatal PTSD. Treatments such as Cognitive Behavioural Therapy (CBT) have long waiting list times and may be hard to access for new mothers.

**Aim:** The relationship between key predictors especially those associated with emotional regulation and PTSD in postnatal women was investigated. The feasibility of using internet based writing therapy for women with postnatal PTSD was assessed. Exploration of women's views about writing therapy as a therapeutic tool and their lived experience of PTSD was undertaken.

**Methods:** Two literature reviews were conducted; firstly to identify the types of therapy previously used for women with postnatal PTSD, secondly to identify necessary conditions for effective writing therapy. The quantitative phase used measures for key predictors of PTSD and incorporated a feasibility study for a writing intervention. Regression analysis for a variety of predictors and PTSD and general and psychological health was conducted on data from 211 women. In the qualitative phase narrative analysis was used on interview transcripts from seven non-writers exploring access to writing and their experience of PTSD. An in depth case study was conducted on a woman who participated in the intervention and who was interviewed.

**Findings:** The quantitative phase showed that planning the pregnancy; whether the baby slept or fed as expected; maternal confidence; past trauma; attachment patterns; self-efficacy; social support and partner support correlated with PTSD. However, the pain component of the birth experience mediated the effect of affects and alexithymia on general and psychological health. Most women did not access writing therapy. The qualitative phase showed that complicating factors and relationships with staff and mothers affect women's experience of PTSD and their view of themselves. Social media was used by women for support.

**Conclusion:** Emotion regulation difficulties could impact postnatal mental health. Antenatal screening for alexithymia may be useful. Women value good relationships with staff during labour. The role of social media for postnatal mental health support should be investigated.

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## Author's Declaration

At no time during the registration for the Doctor of Philosophy has the author been registered for any other University award.

Work submitted for this research degree at Plymouth University has not formed part of any other degree either at Plymouth University or at another establishment.

During the course of the study a number of relevant postgraduate courses were attended to gain transferable and research skills including a Joanna Briggs Institute course on systematic reviews. Several courses facilitating the use of SPSS computer statistics package were attended. These are recorded in the Graduate School logbook.

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# **1 Introduction**

## **1.1 Background**

I have been an antenatal teacher with an interest in the postnatal mental health of childbearing women for many years. My interest was piqued at postnatal reunions where I regularly meet women who relate traumatic birth stories. The women I meet are often reluctant to seek professional help, perhaps perceiving that their experiences are a normal postnatal reaction. The women's stories were a starting point for my interest in postnatal PTSD. As a practitioner with a strong drive to improve women's postnatal experience I was interested in assessing current treatments for postnatal PTSD and also facilitating support for such women. Thus a research journey began which incorporated enrolling for a research degree. Initially I conducted two literature reviews, the first of expressive writing in 2009 and the second of postnatal PTSD treatments in 2012. Additional reading also provoked an interest in the predicting or maintaining factors necessary for the development of postnatal PTSD. Subsequently I designed a study to investigate a possible treatment and to explore in more depth, the impact of postnatal PTSD on women's lives.

Although childbirth is usually acknowledged as a normal physiological phenomenon, after giving birth some women may be at risk of developing mental health disorders that may or may not be related to their birth experience. This study focuses on post traumatic stress disorder after childbirth. In this chapter I will introduce and detail the research questions. The chapter includes an overview of the research design.

## 1.2 The Research Problem

Post traumatic stress disorder (PTSD) is an anxiety disorder with three types of symptoms; re-experiencing the trauma (e.g. nightmares and flashbacks), persistent avoidance of reminders (e.g. loss of memory of the event) and hyperarousal (e.g. irritability, difficulty concentrating) (APA 1994).

This disorder has a different biological profile from depression, panic anxiety disorder, phobic anxiety and depression, panic anxiety disorder, phobic anxiety and generalized anxiety (Pitman 1989). The third edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (published in 1980) was the first to give official recognition to post-traumatic stress disorder as a distinct diagnostic classification. However, at that time childbirth was not considered to be a trigger, as the initializing events were listed as experiences that were not normally encountered. The DSM IV criteria set out in 1994 (APA, 1994, 4th ed) included a range of hyperarousal and re-experiencing symptoms (see Table 1. below for full list) and these were used in the current study. The DSM V criteria were published in 2013; key amendments include a more explicit description about how an individual experienced precipitating events and the addition of persistent negative alterations in cognition and mood to expand criterion C (avoidance and numbing).

Table 1.1 details the differences between DSM IV and DSM V criteria.

**Table 1.1 DSM IV/V Comparison: diagnostic criteria for 309.81 PTSD**

| Criterion | Description DSM IV  | Description DSM V  |
|-----------|---|--|
| A         | The person has been exposed to a traumatic event in which both of the following were present: | The person was exposed to death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, as follows: |
|           | (1) The person experienced, witnessed, or was confronted with                                 | 1. Direct exposure.<br>2. Witnessing, in person.   |

|   |  |  |
|---|--|--|
|   | <p>an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.<br/> (2) The person’s response involved intense fear, helplessness or horror.<br/> Note: In children, this may be expressed instead by disorganized or agitated behaviour.</p>  | <p>3. Indirectly, by learning that a close relative or close friend was exposed to trauma. If the event involved actual or threatened death, it must have been violent or accidental.<br/> 4. Repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties.<br/> Excludes: indirect non-professional exposure through electronic media, television, movies or pictures.</p> |
| B | <p>The traumatic event is persistently re-experienced in one (or more) of the following ways:</p>  | <p>Intrusion symptoms:</p>   |
|   | <p>(1) Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.<br/> (2) Recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.<br/> (3) Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated).<br/> Note: In young children, trauma-specific re-enactment may occur.<br/> (4) Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.<br/> (5) Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.</p> | <p>1. Recurrent, involuntary and intrusive recollections.<br/> 2. Traumatic nightmares.<br/> 3. Dissociative reactions (e.g., flashbacks). May occur on a continuum (brief episodes to loss of consciousness).<br/> 4. Intense or prolonged distress after exposure to traumatic reminders.<br/> 5. Marked physiological reactivity after exposure to trauma-related stimuli.</p>  |
| C | <p>Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:</p>   | <p>Persistent effortful avoidance of distressing trauma-related stimuli after the event (1 of 2 symptoms needed):</p>  |



|   |   |  |
|---|---|--|
|   | <p>(1) Efforts to avoid thoughts, feelings, or conversations associated with the trauma.</p> <p>(2) Efforts to avoid activities, places, or people that arouse recollections of the trauma.</p> <p>(3) Inability to recall an important aspect of the trauma.</p> <p>(4) Markedly diminished interest or participation in significant activities.</p> <p>(5) Feeling of detachment or estrangement from others.</p> <p>(6) Restricted range of affect (e.g. unable to have loving feelings).</p> <p>(7) Sense of a foreshortened future (e.g. does not expect to have a career, marriage, children, or a normal life span).</p> | <p>1. Trauma-related thoughts or feelings.</p> <p>2. Trauma-related external reminders (e.g., people, places, conversations, activities, objects or situations).</p>   |
| D | Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:   | A. Negative alterations in cognitions and mood that began or worsened after traumatic event (2+ symptoms).   |
|   | <p>(1) Difficulty falling or staying asleep.</p> <p>(2) Irritability or outbursts of anger.</p> <p>(3) Difficulty concentrating.</p> <p>(4) Hypervigilance.</p> <p>(5) Exaggerated startle response.</p>  | <p>1. Inability to recall key features of the traumatic event (usually dissociative amnesia; not due to head injury, alcohol or drugs).</p> <p>2. Persistent (and often distorted) negative beliefs and expectations about oneself or the world.</p> <p>3. Persistent distorted blame of self or others for causing the traumatic event or for resulting consequences.</p> <p>4. Persistent negative trauma-related emotions (e.g., fear, horror, anger, guilt, or shame). Markedly diminished interest in (pre-traumatic) significant activities.</p> <p>5. Feeling alienated from others (e.g., detachment or estrangement).</p> <p>6. Constricted affect: persistent inability to experience positive emotions.</p> <p>B. Trauma-related alterations in arousal and reactivity that began or worsened after TE (2+ symptoms).</p> <p>1. Irritable or aggressive behaviour.</p> <p>2. Self-destructive or reckless</p> |

|   |  |  |
|---|--|--|
|   |  | behaviour.<br>3. Hypervigilance.<br>4. Exaggerated startle response.<br>5. Problems in concentration.<br>6. Sleep disturbance. |
| E | Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.   | Persistence of symptoms for more than one month.   |
| F | The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. | Significant symptom-related distress or functional impairment  |

The diagnosis of PTSD according to DSM IV criteria requires at least one symptom from the B and C symptom clusters (those related to persistent re-experiencing of and avoidance of the event) together with two or more symptoms from the D cluster related to increased arousal (for example difficulty sleeping or unnecessarily vigilant behaviour). The DSM V criteria were published in 2013; key amendments include a more explicit description about how an individual experienced the precipitating event and the addition of persistent negative alterations in cognition and mood to expand criterion C (avoidance and numbing). As this study commenced before 2013 the DSM IV criteria were used to ascertain the presence of PTSD in the participants in the current study.

Although as many as 45.5% of women report childbirth as traumatic (Alcorn et al., 2010) the prevalence of PTSD in women at four to six weeks after the birth is thought to be between 1-6% (Creedy et al., 2000; Soderquist et al., 2006). Traditionally PTSD is associated with traumatic and unpredictable events over which individuals have little control (Wijma, Soderquist and Wijma, 1997). Also the initializing events are usually perceived as potentially negative for those concerned (NICE, 2005), thus childbirth could be considered as a unique potential stressor due to its usual association with positive emotions. Postnatal PTSD has been considered as a potential stressor by the APA since 1994 (APA, 1994). However, research in this area has been slow to emerge, with the first

case histories published in the 1990s (Ballard, Stanley and Brockington, 1995).

Traditionally the social discourse around childbirth is positive and joyful thus accentuating any differences in those who experience reduced mental health outcomes as a result of their birth experience (Choi et al., 2005). Since mental health problems as a consequence of childbirth contrast with cultural expectations, it could be suggested that possibly women find it hard to acknowledge such difficulties with family, friends and health professionals and this could be exacerbated by the avoidance symptoms of PTSD (Furuta et al., 2014). The contention then is that there may be many women with postnatal PTSD who are undiagnosed and unsupported because they cannot voice their difficulties. It is possible that such women may value an opportunity to write anonymously about how they feel (Beck, 2006).

The impact of postnatal post traumatic stress disorder should not be underestimated in terms of its effects on the family. Infants whose mothers have experienced PTSD have more difficulties regulating emotion and are at risk of subsequent mental health problems themselves (Bosquet Enlow et al., 2011). Also it appears that when mothers have PTSD they perceive that their offspring are harder to sooth and have difficult temperaments (Davies et al., 2008). Additionally if postnatal women with PTSD find interaction with their offspring harder it is unsurprising that infant attachment patterns could be affected. Forcada-guex et al. (2010) found that mothers with PTSD who had premature babies displayed a controlling dyadic pattern rather than a cooperative one which could then affect subsequent infant attachment. There is also some evidence that PTSD in either partner can affect the couple relationship (Ayres, Wright and Wells, 2007) especially if depression is also present (Parfitt and Ayres, 2009).

### **1.3 Current Treatments**

Psychological therapy, in particular cognitive behavioural therapy (CBT), has been recommended for PTSD treatment (NICE, 2005). Alternatives such as critical incident debriefing could be detrimental to PTSD recovery (Gamble et al., 2002). However, Gamble and Creedy (2004) have suggested that further research is required as current counselling treatment strategies are not consistent. Ayers (2006) states that although 94% of United Kingdom (UK) hospitals offer postnatal debriefing services for postnatal women, there is lack of awareness amongst women of these services and this results in underutilisation. Indeed a recent freedom of information request by the National Childbirth Trust found that of the 193 NHS trusts contacted 54% did not provide any specific perinatal mental health services (National Childbirth Trust, 2014). The Joint Commissioning Panel for Mental Health ([www.jcpmh.info](http://www.jcpmh.info) 2011), which consists of key mental health service stakeholders, recommends that Clinical Commissioning groups should provide perinatal mental health teams in all areas of the UK. However no specialist teams exist in the county in which the current study was conducted (Somerset).

Until 2011 some community mental health services were underfunded and relatively un-coordinated (Kings Fund, 2014); for example, a MIND survey (2010) found that in the general population 20% of people referred for CBT were waiting at least a year for therapy. As part of the Government initiative 'No Health Without Mental Health' (Department of Health 2011), a four year plan of action for improving access and effectiveness of talking therapies was published. The NHS Improving Access to Psychological Therapies (IAPT) (2012) service supports the implementation of both the NICE guidance for those suffering from mental health disorders and the Government

Mental Health Strategy. There is evidence to suggest that IAPT has been moderately successful in reducing waiting list time for therapies and widening access within the UK. Waiting list times between 2009 and 2011 averaged 3 to 6 months (MIND, 2011), whereas more recently improved waiting list times of thirteen weeks from referral to assessment and eighteen weeks from referral to start of treatment, for the majority of users, have been reported (Royal College of Psychiatrists, 2013). However, information from users within the same report suggests that they still felt that the waiting time was too long (Royal College of Psychiatrists, 2013). Indeed a survey of 1000 patients by Aviva (2013) suggested that patients worry that long waiting list times will impact upon their condition and would prefer a two to three week time from referral to treatment. Research by the charity MIND (2011) found that if the waiting list time is three months or less then recovery rates are improved (when compared with those waiting a year). Although both waiting list times and accessibility to CBT have been improved over the last few years research also shows that patients welcome self help therapies or those administered remotely (Royal College of Psychiatrists, 2013). A case could be made therefore for treatments which are immediately accessible from home.

### **1.3 The Postnatal Situation**

The draft NICE guideline for antenatal and postnatal women (2014) highlights the unique situation faced by perinatal women as their ability to access mental health services may be affected by the demands of a new baby. It is important to consider forms of delivering therapy that do not require frequent face to face contact. Purves, Bennett and Wellman (2009) suggest that mental health service users would welcome remote treatment strategies delivered as a computer based intervention. He found that

symptoms were improved in 62% of participants. Traditionally, in addition to the long waiting list, CBT treatment can last a number of weeks, however intensive one week sessions have been used recently and been found to be effective in reducing PTSD symptoms (Ehlers et al., 2014). It is important that treatment regimes allow easy access for postnatal women who may not have the time or inclination to travel to a clinical setting for therapy, especially over an extended time period. Current therapies, when offered in a hospital or outpatient clinic and involving several sessions with a therapist may not be suitable for perinatal women for the reasons stated above, especially if they can only be accessed after a wait of eighteen weeks.

I considered the possibility of using 'talking' therapy as the main intervention for postnatal women with PTSD; however this was discounted as it would not address the problems of access and availability already outlined.

#### **1.4 Newly Emerging Therapies**

A trend towards internet based self help and self report based therapies seems to be emerging, largely due to easy access to home computers and other smart technology. Indeed according to the Office for National Statistics (ONS) 84% of households in the UK possessed internet access in 2104. In a large review and meta-analysis Barak et al. (2008) found that there was little difference in efficacy of internet based therapy compared with traditional therapy. They also found that internet therapy was particularly successful for treating PTSD and panic disorders. However, those authors made an interesting distinction between the main types of therapy available, specifically; self help, web based or online communication based e-therapy. Additional advantages of using the internet for therapy are that the researcher does not have to find suitable

treatment rooms, there is increased flexibility for the participant and potentially more people can be recruited (Sheese Brown and Graziano, 2004).

Internet based work books and various self help programmes have been used to enable PTSD sufferers to self-treat (Kaul, 2002; Herbert and Wetmore, 2001; Vermilyea, 2000). As well as the convenience of using home computer based therapy an additional advantage is its relatively low cost (Marks, et al., 2007). Lewis et al. (2013) report a pilot self guided programme for PTSD treatment, the main limitation of which was the small sample size. However the results showed a 50-67% improvement in PTSD symptoms after using the programme. More importantly the authors reported that the patients found the programme empowering. Authors of a larger randomised controlled trial (Litz et al., 2007) also concluded that by utilising self-management CBT effective treatment could be accessed by large numbers of patients who are currently unable to access standard treatment options. However there are some disadvantages of a contact-less option. O'Mahen et al. (2013) found that an internet based behavioural activation programme was successful in reducing symptoms of postnatal depression in new mothers. While high numbers were recruited quickly using a popular social media website (<http://www.netmums.com/>), there was a high attrition rate as women found it hard to keep up with the treatment with no other form of support, perhaps owing to the demands of new motherhood. There is however, some evidence to show that users also find internet forums, where there is an opportunity for peer support rather than specific treatment packages, beneficial (Kummervold et al., 2002).

## 1.5 Writing Therapy

Writing therapy has been suggested as an effective way to address the needs of those affected by PTSD. Pennebaker, a leading author in this field, has claimed that writing therapy was successful in treating PTSD (Jones and Pennebaker, 2006; Pennebaker, 2003) and could also improve long term health (Abelian, 2006). Other authors (Fernandez and Paez, 2008; Sloan, 2007; 2004) found positive benefits to varying degrees when using writing therapy with PTSD sufferers and it has been shown that writing therapy can be as useful as eye movement desensitization reprogramming (EMD/R) for reducing symptoms of PTSD (Largo Marsh and Spates, 2002).

A number of theories have been advanced regarding the mechanism of action for writing therapy; these are emotional catharsis (Pennebaker and Beall, 1986), confrontation of inhibited emotions (Sloan and Marx, 2004; Pennebaker, 1989), cognitive processing (Park and Blumberg, 2002; Pennebaker, 1997) and repeated exposure (Lepore et al., 2002). The exact mechanism has been hard to assess empirically as contradictory evidence has been reported regarding the above theories. For example, the emotional inhibition and confrontation theory has subsequently been contested (Greenberg and Stone, 1992). Pennebaker (1989) originally posited that by writing about a traumatic event the physiological 'work' of inhibition was reduced and the translation of the event into words facilitated cognitive integration. However Greenberg and Stone (1992) found that there were improvements to participants' health even when they wrote about imaginary traumas (which could not have been inhibited). With respect to postnatal women it is likely that, even though a woman may have been traumatized by the birth experience, she may well be inhibited from voicing her true feelings when the societal expectation would be delight in her new baby (Henderson, Harman and Houser, 2010).



The cognitive integration theory suggested by Pennebaker (1999) has been developed further by Smyth, True and Souto (2001) who suggest that the benefits of writing may be due to alterations in memory structure, making the memory more coherent and organized. Klein (2002) suggests that narrative development allows the repackaging of fragmented traumatic memories thus facilitating recovery. Indeed in further work Pennebaker (2002) suggests that writing is effective in reducing symptoms by not only facilitating a coherent narrative about the event but also allowing a transformation in the way the participant thinks about themselves in relation to others.

Authors disagree on the impact of alexithymia on the writing, Lumley Tojek and Macklem (2002) suggest that the alexithymia interferes with any potential benefits of expressive writing whereas Paez, Velasco and Gonzalez (1999) found that individuals with alexithymia were more likely to benefit from expressive writing. Smyth and Pennebaker (2008) concluded that at present it is not clear whether personality variables make a difference to the outcome of the writing therapy, as the research findings are contradictory.

In the present study I wanted to assess the acceptability and efficacy of using internet based writing therapy with postnatal women for several attractive reasons. Firstly it is relatively simple for the woman, as it could be carried out on any device which has internet access, which would make accessibility straightforward. Secondly because it doesn't necessarily involve contact time with counsellors or clinical psychologists it is cost effective in terms of administration.

## **1.6 Importance of Personality Variables**

As research evidence regarding the importance of personality variables and their impact on the ability of individuals to write is contradictory (Smyth et al., 2002), it was thought to be important to measure these in the current study (in particular alexithymia traits). This would then identify whether some personality traits predicted the effectiveness of writing therapy or not. Please see chapter five for more detailed information regarding personality variables.

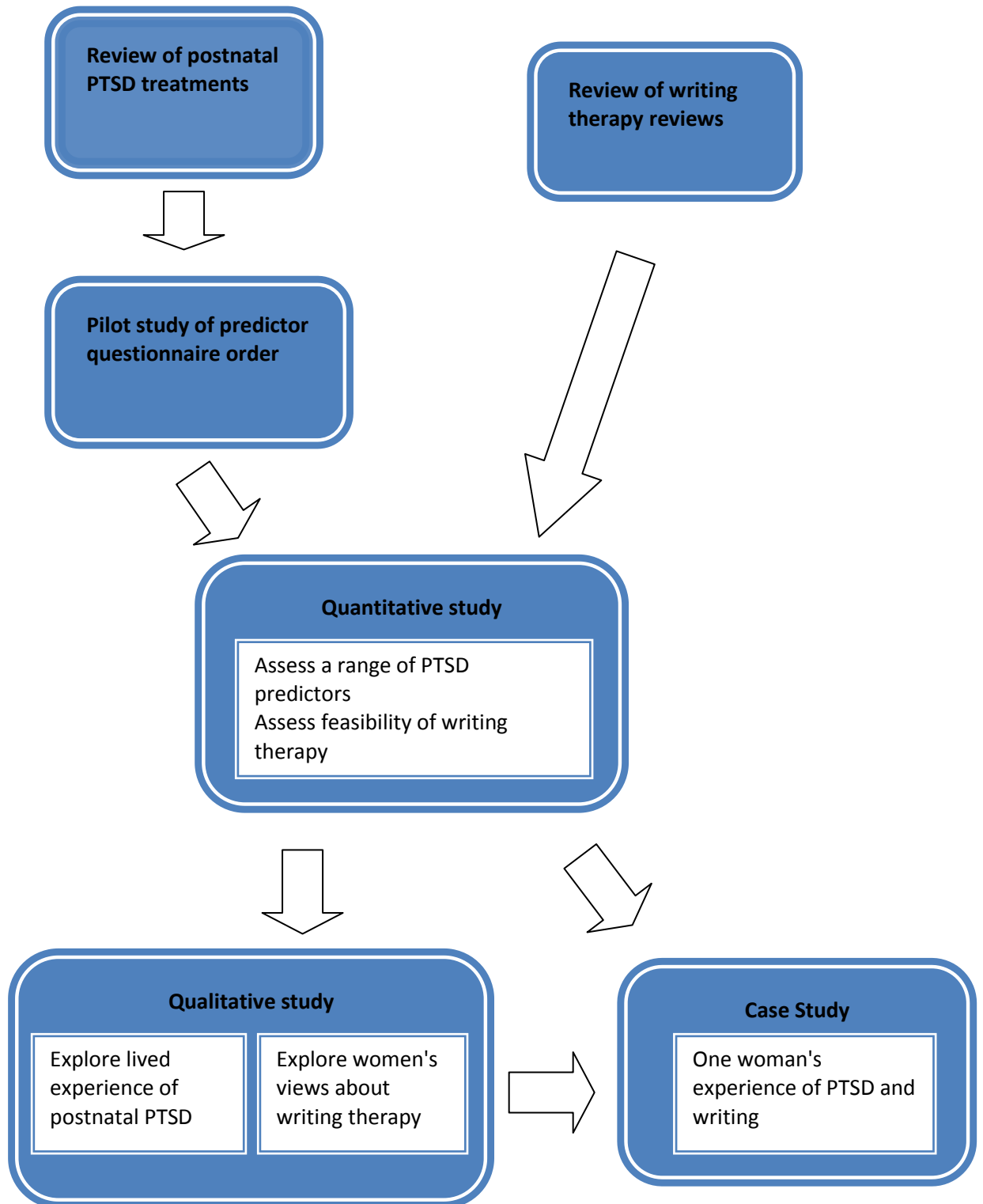
Pennebaker (1997) found that general health improved after performing expressive writing. In the current study the General Health Questionnaire (GHQ- 28) (Goldberg and Hillier, 1979) was used to determine whether this was also the case for postnatal women experiencing PTSD. Frattoroli (2006) carried out a meta- analysis of the topic and found the following moderators caused a greater effect size: three or more writing sessions lasting at least 15 minutes, specific instructions, disclosing a recent unresolved topic, presence of a pre-existing psychological problem relating to the trauma, a setting with minimal distraction, using students, warning the participants about the study, follow up period of less than one month and keeping the disclosure private. This informed the current study design.

## **1.7 The Study**

### **1.7.1 Aims**

My primary aim as a childbirth practitioner was to assist women affected by postnatal PTSD. I wanted to understand the main factors affecting the development of postnatal PTSD and explore women's experience of PTSD to understand better how they could be helped or help themselves. In particular as writing therapy involves active

engagement by the participant I was interested in developing this as an easily accessible treatment for postnatal PTSD. See Figure 1.1 for flow chart of stages of the study.



**Figure 1.1 Flow Chart of Study**

At present there is limited research using writing therapy with postnatal women (Beck, 2005; Di Blasio and Ionio, 2002) and no research into the benefits of controlled

writing therapy using the internet with postnatal women. I used Frattoroli's (2006) findings (which are discussed in more detail in chapter four) to inform the design of my feasibility study, which involved asking postnatal women with PTSD to use the internet to write about their traumatic birth experience in order to reduce PTSD symptoms.

### **1.7.2 Objectives**

- Assess the current evidence base on therapies used for women experiencing postnatal psychological morbidity.
- Ascertain the level of PTSD in a population of postnatal women.
- Explore the relationship or congruity of PTSD and PND in a population of postnatal women.
- Compare the following independent variables or potential predictors; demographic factors, early parenting experience, maternal confidence, affects, alexithymia, attachment pattern, self-efficacy, birth experience, past PTSD, social support and dyadic relationship, against the presence of PTSD and general psychological health (as measured by GHQ-28) in postnatal women.
- Explore women's lived experience of PTSD following childbirth.
- Undertake a feasibility study in order to assess the feasibility of using writing therapy with postnatal women on a broader scale.
- Explore the practicalities of using writing as a therapy for postnatal women with PTSD.

## 1.8 The Research Paradigm

In the past, researchers have often aligned themselves to a particular epistemological view and this is likely to have been influenced by the type of research in which they were involved. For example, quantitative methods are often used by researchers espousing positivist or deductive beliefs where they regarded themselves as independent of the phenomenon under scrutiny; whereas qualitative methods were commonly used by those holding inductive or post-positivist views where the researcher directly interacted with the study (Johnstone, 2004). Researchers in the social sciences in particular have discussed the importance of power in the research process as originally proposed by Foucault (O'Byrne, 2007). O'Byrne (2007) discusses the power relationship inherent within most qualitative research in the social sciences. For example, as phenomena are observed the subtle operation of power could change the phenomena under scrutiny. This is endorsed by Willig (2008) who emphasises the need to be epistemologically reflexive when designing research questions as it is possible to influence or even construct findings depending upon the design of the study or the method of analysis employed.

Over the last 20 years there has been a growing awareness that a particular investigation could be enhanced by application of more than a single epistemological standpoint. Morgan (2006) advocates complementarity within the design process rather than rigidity or competition. Indeed Wuest (2011) comments that during her research journey, which started with the use of grounded theory, it was important, as further questions were raised, that she move beyond the constraints of one paradigm in order to facilitate a more complete understanding. This gradual evolution towards incorporating

both positivist and post-positivist approaches occurred whilst I was planning the current study. My previous experience was mainly within a positivist paradigm. Positivism was first espoused by August Comte (1798-1857) who emphasised the importance of observation, experimentation and comparison in order to reveal 'objective' truth in politics and science (Bourdeau 2014). As my research journey progressed however, I came to realise the appropriateness of a pragmatic research stance. This branch of philosophy was originally proposed by Charles Sanders Peirce (1839-1914) but was further refined in the twentieth century by James (1907), who described it as a mediating philosophy which united positivism with the importance of lived experience (Hookway 2013). As a maternity practitioner with a concern for the mental health needs of postnatal women, I feel I have personally evolved towards being an academic researcher who originally set out via a positivist route but continued my journey, via pragmatism, to embrace post-positivism. The central inspiration for the journey was always centered on the voices and needs of postnatal women. This journey is explored further in the methodology section.

### **Conclusion and introduction to subsequent chapters**

In this first chapter I have introduced the personal reasons for my interest in postnatal PTSD. I have outlined the background to PTSD as a psychiatric disorder and the main symptoms associated with it. I have highlighted the uniqueness of birth as a precipitating event for PTSD and the consequent challenges faced by women with mental health issues related to childbirth. I have discussed these challenges with respect to acceptance by society and accessibility of treatment. I have discussed the current treatments available and some of their disadvantages. I suggested why writing therapy

could be an effective alternative treatment for postnatal women. I have also used secondary research to suggest that certain predictor or maintaining factors related to personality may contribute to PTSD. These factors may also be important in the efficacy of writing therapy for PTSD. Finally I have listed my aims and objectives and given a brief overview of the evolution of my ideas regarding my research paradigm.

The remainder of the thesis contains more detail about each part of my subsequent research journey. In the next four chapters I provide background for the study using secondary research. Chapter two contains an historical overview of the symptom profile of PTSD by the APA and the impact of this on postnatal PTSD. I also outline several of the main theoretical models for PTSD, explore previous research relating to postnatal PTSD and describe the PTSD measure used in the current study. The next two chapters are reviews; the first of current postnatal PTSD treatments which was published in 2013 (chapter three) and the second comprises a review of reviews for writing therapy (chapter four). This was undertaken in order to ascertain if writing was a suitable intervention and also to determine which experimental variables produced a larger effect size. In chapter five I summarise research pertinent to the predicting and maintaining factors for postnatal PTSD. I also outline the main quantitative research tools used. This is followed by the methodology section (chapter six) where I extend the deliberations over the choice of research paradigm and provide details about data collection methods, sample, ethical considerations and analysis of data. Details about the intended feasibility study are recorded, also I revise the original intention to assess quantitatively the effectiveness of writing therapy. Revision was required due to the low number of women who wished to write about their birth. However, since a large number of women completed the initial questionnaires a large quantity of data



regarding potential predictors or maintaining factors for postnatal PTSD was available for quantitative analysis. Chapter seven consists of a justification of the reflexive approach in the research process and relates this to the flexibility required in the current study in the light of the unforeseen challenges. The next three chapters consist of the findings from the study. In chapter eight I present the quantitative findings which relate to three of my research objectives; to ascertain the prevalence of PTSD in the current cohort, to identify a potential co-expression with PND and to assess the importance of a range of key predictors on postnatal PTSD. In chapter nine I use narrative analysis on seven interviews with women who did not write about their birth but were identified as having postnatal PTSD. I identify key themes relating to the lived experience of postnatal PTSD which fulfilled another of my objectives. This is followed by a case study chapter (chapter ten), exploring in depth the experience of one woman who was identified as having postnatal PTSD, wrote about her experience three times and was also interviewed. Thus the practicalities of using writing therapy were also discussed in this chapter. Subsequently in the final chapter (chapter eleven) I discuss the main quantitative and qualitative findings and derive an overarching model for the impact of PTSD on a woman's sense of self. Additionally I suggest areas for further research and recommendations for improvements in midwifery practice to support postnatal women.

## **2 PTSD and Childbirth**

### **2.1 Introduction**

In this chapter I provide a brief introduction to PTSD, its diagnosis and definition by the American Psychiatric Association (APA) (1994). I include a short history of the development of the main general diagnostic criteria and then focus on the history of postnatal PTSD in the literature. I also discuss key vulnerabilities that may particularly affect women and societal expectations of childbirth, which may influence reporting of postnatal PTSD. The implications for the wider family and the importance of a woman's past experiences are also discussed.

### **2.2 PTSD Diagnosis**

Post traumatic stress disorder (PTSD) is an anxiety disorder with three types of symptoms; re-experiencing the trauma (e.g. nightmares and flashbacks), persistent avoidance of reminders (e.g. loss of memory of the event) and hyperarousal (e.g. irritability, difficulty concentrating) (APA 1994). Pitman (1989) reported that the disorder has a different biological profile from depression, panic anxiety disorder, phobic anxiety and depression, panic anxiety disorder, phobic anxiety and generalized anxiety. It is thought that PTSD is a neuro-physiological phenomenon; affecting the hypothalamic-pituitary axis, hippocampal volume and endogenous opioid function (Adshead, 2000). Previously, the main causes of PTSD reported in the literature have been war (Street, Vogt and Dutra, 2009), human related disaster (Hickling and Blanchard, 1992), natural disaster (Neria, Nandi and Galea, 2008) and abuse or sexual assault (Tolin and Foa, 2006). The third edition of the Diagnostic and Statistical Manual (DSM) of the APA (1980) was

the first to give official recognition to post-traumatic stress disorder as a distinct diagnostic classification. At that time childbirth was not considered to be a trigger, as the initializing events were listed as experiences that were not normally encountered in the course of life.

The updated APA DSM IV criteria (1994) included a range of hyperarousal and re-experiencing symptoms (see Table 1. chapter one) which were consistent with traumatic childbirth being included as a possible stressor. The DSM V criteria were published in 2013 and key amendments included a more explicit description necessitating firsthand experience of precipitating events and the addition of persistent negative alterations in cognition and mood to expand criterion C (avoidance and numbing)(see Table 1. in chapter one). In other ways though, the criteria seem to have reduced rather than broadened in comparison with the 1994 criteria, as described below. As the current study was planned and carried out before 2013, DSM IV (APA, 1994) criteria were used. It is of interest to note that, had the current criteria been employed in PTSD diagnosis in the current study, it is possible that a reduction in prevalence may have been found as the current criteria have an increased level of specificity. Indeed DiMauro et al. (2014) present an historical review of PTSD where they discuss studies that influenced changes to the inclusion of certain criteria in DSM V. In terms of the key differences, DSM V (APA, 2013) no longer includes criterion A2 (peri-traumatic emotions of fear, helplessness, and or horror), as research had shown that these emotions were not the most important indicators for PTSD symptom severity. Initially this would seem to suggest that, had I used DSM V (APA, 2013) criteria, fewer women would have met the full diagnosis since generally reporting of fear and powerlessness is associated with the perception of traumatic birth. However the new criteria include guilt and shame as indicators because

these emotions have been shown to be more specifically associated with a diagnosis of PTSD. I would contend that it is therefore important that the current study includes exploration of levels of guilt and shame associated with the birth experience in order to contribute to knowledge in this particular area.

### **2.3 Explanatory Models for PTSD**

A number of theoretical models have been proposed to explain PTSD. Early models include social-cognitive, conditioning, information-processing, and anxious apprehension. The social cognitive model (Janoff-Bulman, 1992) suggests that people usually have assumptions about the world enabling them to interact with it. However, the author proposed that when a traumatic event occurs previous assumptions about the world as a largely benevolent place are shattered and there is difficulty integrating the new information into the previous world beliefs. Conditioning theory (Keane, Zimering and Caddell, 1985) alternatively suggested that a learned association developed in response to trauma and this caused avoidance behaviour. Foa, Steketee and Rothbaum (1989) advanced an information processing theory which introduced the idea that the memory of traumatic events is encoded, stored and recalled in a different way from other life events and because of this it cannot be integrated in memory systems in the usual way. The anxious apprehension model was introduced by Jones and Barlow (1990), who drew parallels with other panic and anxiety disorders and suggested that cognitive factors after the trauma feedback and produce a cycle of anxiety and apprehension. Neurobiological theories have also been advanced alongside psychological ones. Cahill and McGaugh (1998), for example, posit that trauma induces stress and this results in dysregulation of the body's core stress response system. Such

systems may sometimes be primed early in life such that when individuals are exposed to trauma later in life it will trigger an excessive neurobiological response such as raised levels of stress hormones. It will be interesting to return to this model when considering the activation of the amygdala and its associated hormones during childbirth in chapters nine and eleven.

More recent psychological theories regarding PTSD include emotional processing, dual representation, a cognitive model and a social ecology model. Emotional processing theory was suggested by Foa and Rothbaum (1998), who built upon the information processing theory (Foa, Steketee and Rothbaum, 1989) by incorporating the importance of rigid pre-trauma beliefs in conferring vulnerability to individuals for PTSD. This could be worth consideration for women in the current study as it may be important to explore qualitatively women's views about what they had thought birth would be like and quantitatively, through the self-efficacy measure, whether PTSD correlated with an individual's view about how they cope with life. Additionally the model included the proposal that if there was increased emphasis on negative appraisals of the event at the time, which accentuated a feeling of incompetence in the individual, this would be more highly associated with increased PTSD symptoms. This element of theory is also pertinent to the current study as by incorporating measures for maternal confidence and self-efficacy quantitatively and exploring these concepts through interview I was able to investigate the women's views about themselves and whether this was associated with increased levels of PTSD. Foa and Rothbaum (1998) additionally suggest that if extreme emotions are experienced at the time of the trauma then there will be disruption to the processing of the event, causing disorganization and fragmentation of recall. The dual representation theory proposed by Brewin, Dalgleish and Joseph (1996) also draws on

the work by Foa, Steketee and Rothbaum (1989). Brewin, Dalgleish and Joseph (1996) suggested that there were two types of memory system in operation; the first is verbally accessible and can be deliberately retrieved but is only partially integrated with autobiographical or time sequenced memory. The other memory system is situationally accessible and could not be deliberately retrieved but is triggered by trauma reminders. They may be both in operation during the trauma but only events that are directly attended to by the individual become part of the verbally accessible memory system. This model could explain the inability to remember all of the experience, co-existing with the ability to re-live sensorially, particular parts of the trauma. More recently Ehlers and Clark (2000) have added to the disturbance of autobiographical memory processing model by suggesting that cognition is also important. If the individual conducts excessive negative appraisal or interpretation of the negative event, such that they perceive a serious current threat to self, this would cause dysfunctional behaviors such as seeking safety and thought suppression. Further research has supported the idea of a role for cognition; Dunmore, Clark and Ehlers (2001) found that individuals who appraised themselves as helpless during the traumatic event were more likely to show symptoms of PTSD subsequently. This aspect is also important to consider in the current study, as when interventions take place during labour this can often lead to women feeling helpless (Liamputtong, 2007). This aspect was explored in the current study through the perception of birth questionnaire in the quantitative phase and through interviews in the qualitative phase.

More recently Sutherland and Bryant (2008) suggested that the pattern of memory retrieval was found to be disrupted (trauma focused memories were more likely to be retrieved in response to particular cues) in individuals who had a different

perception of their actual self from their ideal self. I would suggest that the idea of self is key in the transition to motherhood and exploring this with women who have PTSD symptoms postnatally could add to qualitative data available in the field.

Charuvastra and Cloitre (2008) conducted a large review of PTSD and social support and proposed a social ecology model for PTSD. They suggest that functional social support (that perceived by individuals as a helpful social interaction rather than the existence of a particular structural element of support) not only predict the likelihood of PTSD but also can act as a risk factor for subsequent development of PTSD following trauma. This may be explained by the finding that low social support is associated with an avoidant coping style and avoidant coping is more strongly predictive of full PTSD (Thompson and Waltz, 2010). Another important aspect of the model is the importance of the subjective nature of trauma; if trauma is appraised as having a human cause it is associated with increased levels of fear. In such instances social support can promote a sense of safety, which would then attenuate fear and potentially protect against or moderate PTSD. This theory has particular relevance to PTSD in postnatal women because birth trauma is perhaps unusual in that a traumatic birth experience could be associated with elements of both human and non-human causes. Earlier work (Ozer, Best and Lipsey, 2003; Brewin, Andrews and Valentine, 2000) highlighted the importance of peri-traumatic factors such as trauma severity and the existence of additional life stressors rather than pre-trauma factors. Additionally Brewin, Andrews and Valentine (2000) pointed to social support as a risk factor. The importance of social support and additional life stressors such as relationship difficulties or bereavement were aspects that I hoped to investigate further in the qualitative part of the current study.

Ford, Ayers and Bradley (2010) suggested that the cognitive model originally posited by Ehlers and Clark (2000) can be strengthened by incorporating the social support model proposed by Charuvastra and Cloitre (2008) for postnatal women. They posit that in the absence of adequate social support PTSD following birth is more likely in vulnerable individuals. However, it is important to consider the relative importance of negative social interaction as opposed to positive support and the idea that the perception of support may be more influential than objectively measured support.

## **2.4 Postnatal PTSD and Implications**

Post traumatic stress disorder associated with childbirth has been formally acknowledged in the Diagnostic and Statistical Manual of the American Psychiatric Association (APA) fourth edition (DSM IV) since 1994. Birth trauma can result when the woman perceives that her life or that of her child has been in danger or she perceives the event as physically or psychologically traumatic. Childbirth related PTSD has been reported in the literature since the mid 1990s (Ballard, Stanley and Brockington, 1995), although it is likely that it was occurring before this time and went unreported or unclassified as PTSD. The prevalence of postnatal PTSD ranges from 1.5 to 6% (Beck, 2006; Creedy, Shochet and Horsfall, 2006; Ayers, 2001). However, as many as 30.1% of women may be partially symptomatic for PTSD (Soet, Brack and Dilorio, 2003). It is possible that the number of women with the disorder may be increasing due to greater medicalisation of childbirth and women's dissatisfaction with the level of care during labour (Fisher, Astbury and Smith, 1997; Creedy, 2000). This concurs with the finding that over 45% of women report childbirth as traumatic (Alcorn et al., 2010). Olf et al. (2007) proposed that women have a higher susceptibility to PTSD which could be



explained by their regulation of hormonal responses to danger. This is important to consider for perinatal women who may have experienced extremes of emotion during and after their birth.

Olde et al. (2006) suggest that development of PTSD postnatally should be seen as an important public health issue and Ayers, Eagle and Waring (2006) report the following as a result of PTSD; impaired quality of life, changes in their physical well being, mood, behaviour, social interaction, changes to the relationship with their partner and the mother baby bond. Pennebaker (1989) has also suggested that if traumatic events are not disclosed, somatic illness may occur. Thus it was important in the current study to assess any co-morbidity with somatic illness by administering the general health questionnaire (Goldberg and Hillier, 1979).

## **2.5 Development in the Understanding of Postnatal PTSD**

In 1995 Ballard, Stanley and Brockington reported upon four cases of women who had experienced post natal PTSD. All four cases described involved a high degree of medical intervention. For example, in the first case a woman experienced an emergency Caesarean section with insufficient epidural anaesthesia and was in unbearable pain, in the second case the woman had extreme pain in her labour but was left for long periods of time with no support, an episiotomy was administered but it caused problems afterwards. Similarly a third woman had an unsupported labour which was painful and she was left with a prolapsed rectum and ensuing problems with the perineal stitches. Finally, a fourth woman experienced shoulder dystocia requiring an episiotomy and her baby had a cardiac arrest. The article took the form of a case report showing that symptoms persisted for over a year and may have consequences for the mother infant

relationship. Initially then it seemed that a painful or medicalised birth was a necessary pre-requisite for subsequent development of postnatal PTSD. However it quickly became clear that the objective assessment of physical pain or injury was not the main predictor of psychological morbidity. Wijma, Soderquist and Wijma (1997) reported on a cross sectional study of postnatal women in Sweden. They found that PTSD symptoms were most strongly related to past psychological counselling, nulliparity, subjective negative thoughts about the birth and feelings that staff were unsupportive. The study involved a relatively large sample (1640) and thus yielded statistically robust results. However limitations of the study included using a previously unvalidated PTSD measure and a loosely restricted period of time postnatally during which women could submit their completed questionnaires. Additionally the authors did not use a measure for pre-existing or past PTSD but despite these issues the main findings from the study support subsequent research (Boorman et al., 2014).

Boorman et al. (2014) suggest that the single largest predictor of PTSD is prior trauma, however they also found that primiparous women were at increased risk, as were those who had experienced an emergency Caesarean section, although a review of the topic showed inconsistent findings in the literature regarding the inclusion of parity as a risk factor (Ayers et al., 2009). The finding that emergency Caesarean section may correlate with PTSD severity (Boorman et al., 2013) confirmed a previous study by Ryding et al. (2004), who conducted a number of studies on perinatal procedures and found that emergency Caesarean section was more likely than other interventions to provoke negative cognitions in women. Subsequent studies have shown that there is a large range of potential predictors or risk factors for postnatal PTSD including; low levels of partner support during labour, lack of staff support, patterns of blame, lack of control

during labour, previous mental health problems and trait anxiety (Czarnocka and Slade, 2000). Additional predictors were reported by Soet Brack and Dilorio (2003) in a small US study. These included history of sexual trauma, lack of social support, pain in the first stage of labour, expectations, level of medical intervention, self-efficacy, internal locus of control, and coping style. Interestingly eighteen percent of their sample reported symptoms of PTSD without acknowledging that they felt stressed, which highlights the complex expectations and discourses that surround new mothers. The authors acknowledged that since the birth information was collected retrospectively over several months this may have affected accuracy of reporting. I used the findings from the above studies when deciding upon which measures to employ alongside the PTSD questionnaire in the current study; more detail regarding the individual predictors is presented in chapter five.

## **2.6 Societal Understanding of PTSD**

Post traumatic stress disorder was originally categorised as a psychological disorder in 1980 (DSM III) (APA, 1980). Prior to this, those who had experienced severe psychological trauma had received diagnoses such as railway spine (relating to survivors of human disasters), irritable heart, soldiers heart, shell shock and war psychoneurosis (relating to war or combat) (Turnbull, 1998). Research interest in the disorder has burgeoned since the early 1980s, however much of this has focussed on combat related trauma, perhaps in part due to the numbers of affected veterans. DiMauro et al. (2014) assert however, that it took longer for researchers to understand that individualised interpersonal trauma such as sexual assault, rape and also latterly traumatic childbirth could cause PTSD.

General societal discourses and views relating to mental health are worth consideration because it would appear that perceptions regarding women with postnatal PTSD may be subject to stigma and this may contribute to under-reporting (Soet Brack and Dilorio, 2003). Historically stigma was attached to veterans with combat related psychological disorders. DiMauro et al. (2014) discuss that historically stigma around mental health issues contributed to the attribution of PTSD symptoms to personal weakness and an inability to conform to stereotypical ideals of manhood. More recently this has largely been replaced by understanding and an empathetic response to those returning from war with psychological morbidity. We are no longer in a situation where pensioned veterans receive less for a psychological disability than a physical one (DiMauro et al., 2014). A number of authors have identified a variety of social discourses around childbirth (Lothian and Grauer, 2012; Edwards and Conduit, 2011; Fisher Hauk and Fenwick, 2006). However, it is interesting to explore the components of a culturally acceptable birth experience. Choi et al. (2005) found that women were generally unprepared for first time motherhood and found that their expectations were based on motherhood myths, which in turn led to feelings of inadequacy as they then failed to live up to the idealised myths present in society. Although Choi depicts the gulf between expectations and lived reality for motherhood, she does not discuss in detail the maternal expectations around birth itself. None-the-less, the transition to motherhood is regarded by many as a life changing event or rite of passage which not only impacts upon a women's view of herself but also upon her world view (Prinds et al., 2014).

Wijma, Soderquist and Wijma (1997) acknowledged that historically childbirth has not necessarily been considered as an initiating event for PTSD because it is predictable (once pregnant) and generally looked upon with happiness and as a positive

life experience. Indeed societal expectations imbue many aspects of birth and the way in which people choose to mother. Peters and Skirton (2013) discuss the hierarchical behaviour displayed in a Sure Start centre postnatal support group. They suggest that this existed because of strongly held views about what constituted a good mother, thus those who failed to live up to stereotypes and were perceived to fall outside the expected norms were condemned.

Lyerly (2012) p. 317 states:

*"My sense is that our goals for birth are not appropriately linked merely with the presence or absence of technology (or pathology), but rather, with deeper notions of the good to which a breadth of women can ascribe".*

One of the ideals around the birth process is that of the normality of birth and the expectation that an ideal birth is one without intervention (Lyerly, 2102). However Lyerly also discusses the opposing ideal that if interventions occur then the expectation is that they should always produce a healthy baby, regardless of the level of intervention required to facilitate this outcome. Fisher Hauk and Fenwick (2006) argue that social context influences how women view concepts of childbirth and their individual experience of it. They suggest that since Western society has a general high regard for technology, given that it is increasingly applied to birth, this results in a de-skilling or lack of empowerment for women around physiological or more natural birth. Thus a tension exists between the cultural expectation, that by situating birth in hospitals it reduces risk to mother and child and the tendency for that very situation with its concomitant interventions (NICE, 2014) to render women powerless, regarding their wishes for their birth. This powerlessness and lack of control over the birth process has long been reported as a predicting factor in postnatal PTSD (Soet, Brack and Dilorio, 2003; Czarnocka and Slade, 2000).

In a review of PTSD, Adshear (2000) highlighted the importance of internal control in terms of susceptibility to PTSD. She proposed that those resilient to PTSD did not perceive themselves as able to control everything that happened to them, neither were they resigned to helplessness when facing potentially traumatic events. However they recognised the importance of seeking help if they were unable to cope. Alternatively those who were more vulnerable to PTSD had a tendency to perceive seeking help as shameful and a cause of anxiety.

Thus it was important to capture feelings of control or loss of control during the birth from women in the current study. This is discussed further in chapters nine, ten and eleven. However the argument regarding cultural expectations about birth will be continued later in this chapter in the context of women's feelings of guilt and shame.

## **2.7 Birth Expectation and PTSD**

Aside from societal discourses surrounding birth and new motherhood there is little published literature regarding women's individual expectation of the birth. Gibbins and Thomson (2001) conducted a phenomenological study in which they identified that women's expectations of labour differed from their actual experiences, especially with respect to pain and length of labour. It is important to consider expectation in the context of PTSD because authors have found that when expectations about birth are not met women may be more vulnerable to PTSD (Wijma, Soderquist and Wijma, 1997). Birth expectation was explored in the current study using the Perceptions of Labour and Delivery Scale (PLDS) (Bailham, Slade and Joseph, 2004) and also during qualitative interviews.

## 2.8 The Importance of Past Trauma

As previously mentioned when PTSD arises as a result of birth trauma it is important to consider any mediating and predisposing factors (Czarnocka and Slade, 2000). It has been suggested that women may be more likely to experience PTSD postnatally if they have had past mental health problems, which would confer a pre-existing vulnerability of women (Czarnocka and Slade, 2000). More recently Boorman et al. (2003) argued that, in their study of postnatal women, trauma history was the main risk factor for PTSD. Mezey et al. (2005) suggested that 10.7% in their sample of postnatal women who had current PTSD had a history of sexual trauma, indeed Verreault et al. (2012) found that previous trauma such as childhood or sexual abuse predicted PTSD following birth. This is particularly important for those experiencing previous sexual assault as many women describe a subsequent traumatic birth experience as akin to sexual assault (Kitzinger, 2006). Additionally it appears that the psychological sequelae are cumulative (Schumm, Briggs-Phillips and Hobfoll, 2006).

United Kingdom national statistics show that 5% of adult women have been victims of serious sexual assault or rape and 20% of women have been the victims of less serious sexual offences (ONS, 2015). Furthermore Adshead (2000) reports that 20-30% of people exposed to a traumatic event will go on to develop PTSD. Thus it is possible that between 0.4% and 6.7% of women in the UK population may have experienced prior PTSD because of the prevalence of sexual violence alone. In research on young people and trauma, Bennet et al. (2014) found that women and girls were more sensitive to the effects of interpersonal trauma compared with men. Indeed, in a meta-analysis of 290 PTSD studies, Tolin and Foa (2006) found that women were more likely to meet criteria for PTSD although the tendency for them to be exposed to traumatic stressors was less

compared with men, except for sexual assault where the likelihood of exposure was higher than in men. Thus, not only is sexual violence more likely to affect women but they are also more inclined to develop PTSD after such an event. The implications for the current study are that a number of women will have experienced past sexual assault that resulted in PTSD and thus they could be more at risk of PTSD if their birth experience was also traumatic. Furthermore Adshead (2000) suggests that if PTSD has arisen as a result of long term abuse, the symptoms may include features of guilt and shame, whereas if there was a single incident stressor the symptoms are more likely to be fear based. This has implications for treatment, as individuals with fear based PTSD respond better to cognitive behavioural therapy, whereas those with guilt and shame based PTSD may respond better to prolonged exposure treatment or adaptive disclosure. However, work on differences in approach to treatments appears to be at an early stage even in combat related PTSD (Steenkamp et al., 2013).

Adshead (2000) also found that those who suffer more from guilt and shame when experiencing PTSD show more changes related to the way they see themselves and others. She suggested that this can cause fragmentation in the individual's sense of security. The increased research interest in the elements of guilt and shame has resulted in the changes seen in criterion E of the new DSM V (APA, 2013) which lists 'Persistent distorted blame of self or others about the cause or consequences of the traumatic event' (Calhoun, 2012 p. 1034).

Although beyond the scope of the current study, further investigation of the guilt and shame component of childbirth related PTSD and possible treatments is warranted. However, it was relevant in the current study to discuss associations between the guilt and shame experienced as part of the PTSD profile and possible guilt and shame



experienced as result of women believing that their experience did not meet current cultural expectations of birth. In the current study this was explored more fully during interviews with women by asking about the way they saw themselves and by subsequent analysis of transcripts from interviews with women after their births.

## **2.9 PTSD Measure used in Current Study**

In the current study I used the Weathers et al. PTSD Checklist (1993). It appears that many researchers use the Impact of Events Scale (IES) as a measure of postnatal PTSD (Kershaw et al., 2005; Ryding et al., 2004; Priest et al., 2003). There is evidence to suggest that the IES is well validated and used in the field in which my study resides. Moreover the Weathers et al. (1993) Checklist has been used to ascertain whether previous trauma had occurred and if PTSD pre-existed in the participant, however there is no such adaptation for the IES measure so it was regarded as less suitable in the current study. As mentioned above, past trauma history has been shown to be a main risk factor for PTSD (Boorman et al., 2013) thus it was important to assess this alongside current PTSD. Brewin et al. (2002) used an alternative scale (the Trauma Screening Questionnaire) based on that of Foa, Riggs and Dancu (1993) which employed a much shorter format, however the findings have yet to be replicated on a larger scale with participants other than rail crash survivors or crime victims. Another disadvantage of the IES is that it only provides a quantitative measure of intrusion and avoidance symptoms of PTSD but not for other symptom clusters listed in DSM IV (APA, 1994) and since a complete diagnosis can be obtained via the Weather's et al. Checklist (1993) it was thought to be a more suitable measure for use in the current study.

Past and current trauma was assessed using the Weathers PTSD checklist (1993). The past trauma part of the questionnaire consists of sixteen questions relating to type of trauma that the participant may have experienced. Participants were asked to score the questions from 5 to 1 where 5= 'happened to me' to 1 'not applicable'. A total score for past PTSD was calculated based on level of exposure to past traumatic events. A low to moderate score equated to 16-48 and a moderate to high score equated to 49-80. Multigravid women were also asked if they considered any of their previous births to be traumatic, a simple dichotomous response was required.

Current PTSD was assessed using a three subscale measure equating to the DSM IV criteria (APA, 1994). Subscale B consisted of five questions related to re-experiencing the trauma, subscale C contained seven questions relating to avoidance of the trauma and subscale D was composed of another five questions regarding the level of hyper-vigilant symptoms experienced. Participants were asked to rate their symptoms on a scale of 1-5 where 1 = 'not at all' and 5= 'extremely'. A score of 3, 4 or 5 was regarded as symptomatic; scores of 1 and 2 were regarded as non-symptomatic. Subsequently scores for each subscale were calculated. For full statistical analysis a diagnosis of PTSD was required and was calculated by ensuring that the following were present; at least one B item (total score 5-25), three C items (total score 9-15) and 2 D items (total score 6-10). The reliability for this measure was calculated using Cronbach's  $\alpha$  and was found to be 0.80 for the re-experiencing subscale, 0.81 for the avoidance subscale and 0.87 for the arousal subscale. These values equate to an excellent level of reliability of each subscale for this measure in the current population.

Initially however, a quicker calculation was made prior to inviting participants to take part in writing therapy. This consisted of totalling the scores from all questions and

inviting women who scored over 29 to take part in the therapy. Selection of this value was based on the validity tests applied by Weathers et al (1993). A score of over 29 indicated partial or full PTSD, this approach ensured that all women who could potentially benefit from the intervention were selected and invited to take part.

## **2.10 Conclusion**

In this chapter I have described the historical background relating to childbirth, as a precipitating event for PTSD. I have discussed the American Psychiatric Association (APA) diagnostic criteria for PTSD, how these have changed over time and how this relates to the postnatal situation. I have also outlined some theoretical models which have been previously suggested for PTSD. The wider public health implications have been introduced, along with research evidence regarding predictors for postnatal PTSD. I have also introduced the PTSD measure used in the current study, explained why it was chosen and how it was scored. In the next chapter I present a review of treatments used for PTSD in postnatal women.

## **3 Review of Postnatal PTSD Treatments**

### **3.1 Introduction**

In the introduction chapter I set out my rationale for the current study. In chapter one I discussed the incidence of PTSD in postnatal women and the current services and treatments available to women in the UK. In this chapter I describe a review of literature which was conducted prior to the current study. The review was undertaken to ascertain the type and range of treatments previously used for postnatal PTSD. This enabled me to potentially select an effective treatment to use in the current study. Only randomized controlled trials (RCTs) were included because at the time of the review the intention was for my study to also be a RCT. The review was necessary to determine which interventions had been previously used and thus inform decisions about my choice of intervention for the current study.

#### **3.1.1 Aim**

A systematic review of the literature was completed in order to ascertain the efficacy of different types of treatment for PTSD in postnatal women. The systematic review method was chosen because it enables an in depth analysis of primary research studies. Systematic reviews employ detailed quality guidelines and specific inclusion criteria to assess evidence from primary studies and draw conclusions regarding effectiveness of interventions, which can then inform future research (Higgins and Green, 2008).

## 3.2 Methods

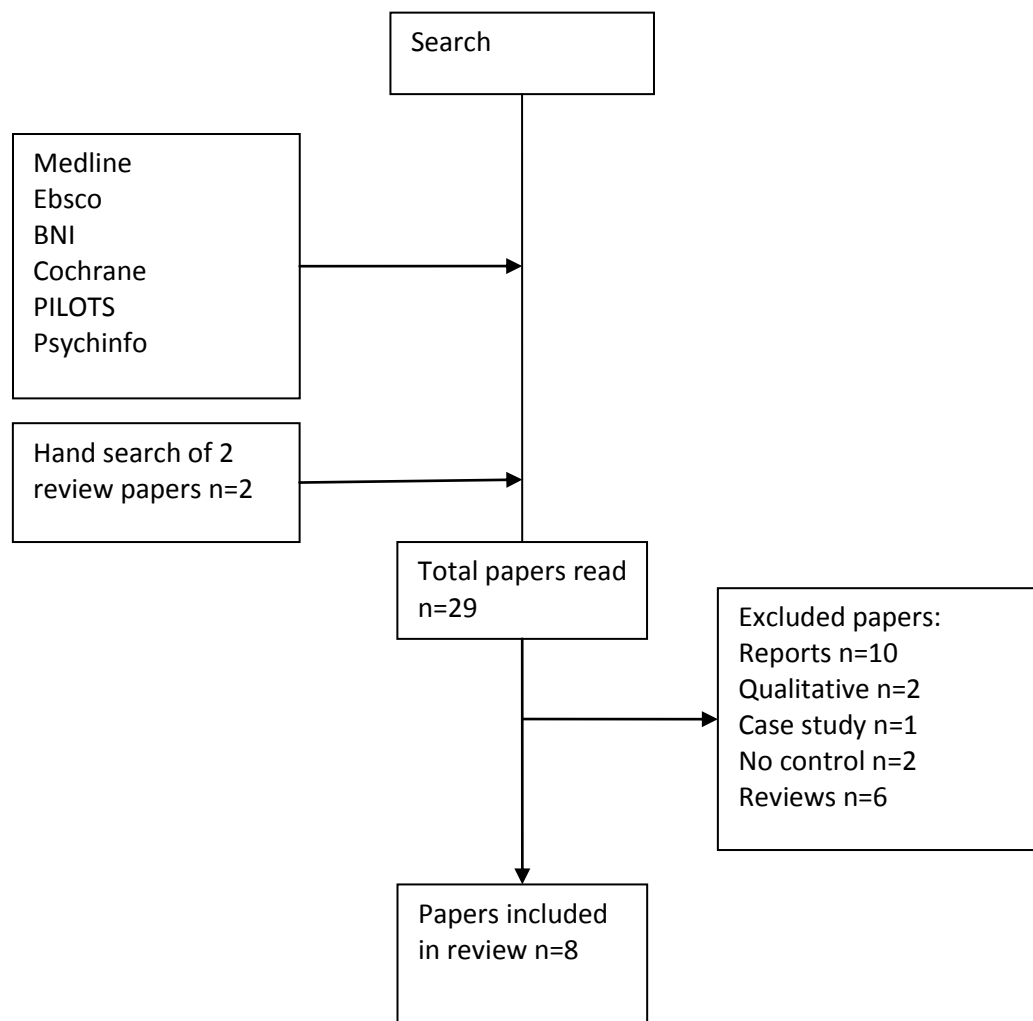
The review process was based on the Potsdam guidelines for systematic reviews (Cook, Sackett and Spitzer, 1995 p. 167) which defines a systematic review as:

*"The application of scientific strategies that limit bias to the systematic assembly, critical appraisal and synthesis of all relevant studies on a specific topic."*

The guidance published was adhered to regarding the following; posing a relevant hypothesis, searching for eligible studies, using robust scoring systems to ascertain the quality of studies and extracting analysing and interpreting the data obtained from the primary studies.

### 3.2.1 Search strategy

The following databases were searched, Medline, Ebsco, BNI, Cochrane, PILOTS and Psychinfo for papers published between 1995 and 2011. These databases were chosen as they contained journal collections most relevant to the subject under review. The start date (1995) was influenced by the literature first reporting postnatal PTSD (Ballard, Stanley and Brockington, 1995). The key search terms used were 'PTSD' or 'traumatic stress' and 'post natal' or 'postnatal' or 'childbirth' or 'child birth' or 'post partum' or 'mother' or 'matern\*'. A total of 29 papers were retrieved and the abstracts or full texts were read. Two additional studies were retrieved by ancestral searching of two previous review papers (Mangaoang, 2009; Gamble and Creedy, 2004). See figure 3.1 for PRISMA flow-chart.



**Figure 3.1 PRISMA flowchart showing selection process**

### **3.2.2 Eligibility for inclusion in review**

The inclusion criteria were: research studies in which the method was a randomised controlled trial (RCT) investigating treatment interventions for postnatal post traumatic stress disorder, studies written in English, studies conducted in any population from any country. The following studies were excluded: those focussing on women in the antenatal period, studies in which the women did not have a definite diagnosis of PTSD and where the treatment intervention was unassessed.

Of the 29 papers found, six were reviews of the topic (Lapp, Agbokou and Peretti, 2010; Bastos et al., 2009; Mangaoang, 2009; Olde, van der hart and Kleber, 2006; Gamble and Creedy, 2004; Bailham and Joseph, 2003). Eight were randomised controlled trials; (Selkirk et al., 2006; Gamble et al., 2005; Kershaw et al., 2005; Ryding et al., 2004; Priest, et al., 2003; Tam, et al., 2003; Di Blasio and Ionio, 2002; Lavender and Walkinshaw, 1998). Ten were reports of current practice (Buck, 2009, Kitzinger and Kitzinger, 2007; Rowan, Bick and Bastos, 2007; Alder et al., 2006; Ayers et al., 2006a; Stowe and Newport, 2005; McKenzie-McHarg, 2004; Allan, et al., 1998; Allott, 1996; Smith, and Mitchell, 1996). Two were qualitative in nature (Beck, 2006; Beck, 2005) one reported a case study (Ayers et al., 2006b) and two others (Sandstrom, Wiberg and Wikman, 2008; Sorenson, 2003) were excluded as no control group had been used in the studies. In order to assess efficacy of treatment for PTSD and other psychological disorders in a scientifically robust manner, only the eight RCTs were selected for detailed analysis.

### **3.2.3 Quality assessment of papers reviewed**

The quality assessment tool used in this study was that proposed by Kmet, Lee and Cook (2004). A quality rating was given to important components of the study such as randomisation and blinding, study design, variance, analysis and confounding variables. Each paper was scored by two researchers independently and their scores were averaged. The quality ranged between 96% and 65%. All eight RCTs were deemed of sufficient quality to be included in the review. See Table 3.4 on page 66 for a comparison of the studies.

### 3.2.4 Data extraction and management

Data were extracted according to the Cochrane review protocol (Bastos et al., 2009) which involved comparison of type of participants (see table 3.1), sample size, diagnostic criteria used (see table 3.2), nature, timing and duration of debriefing intervention (see table 3.5), number and frequency of sessions, type of professional delivering the intervention, intervention components, control components, outcomes (primary and secondary measures) and reported statistics (see table 3.4) and length of follow-up (see table 3.3).

**Table 3.1 Types of Participants**

| Name of Study           | Selected  | Universal | Indicated |
|-------------------------|---|-----------|-----------|
| Di Blasio et al. (2002) | No  | Yes       | No        |
| Gamble et al. (2005)    | For trauma symptoms   |           | No        |
| Kershaw et al. (2005)   | For operative delivery  |           | No        |
| Lavender et al. (1998)  | For normal vaginal delivery of a healthy infant                             |           | No        |
| Priest et al. (2003)    | No  | Yes       | No        |
| Ryding et al. (2004)    | No  | Yes       | No        |
| Selkirk et al.(2006)    | No  | Yes       | No        |
| Tam et al. (2003)       | For unexpected ante/peri /post /natal events leading to suboptimal outcomes |           | No        |

**Table 3.2 Diagnostic Criteria Scales Used to Assess Psychological Morbidity**

| Study                    | Scales Used  | Intervention effective | PTSD specifically measured |
|--------------------------|--|------------------------|----------------------------|
| Di Blasio & Ionio (2002) | Perinatal PTSD Questionnaire (DiMier et al. 1996).   | Yes                    | Yes                        |
| Gamble et al. (2005)     | Edinburgh Postnatal Depression Scale,(EPDS) Depression Anxiety and Stress Scale -21, Maternity Social Support Scale. | Yes                    | No                         |



|                        |   |     |     |
|------------------------|---|-----|-----|
| Kershaw et al. (2005)  | Wijma Delivery Expectancy Scale, Impact of Events Scale.  | No  | No  |
| Lavender et al. (1998) | Hospital Anxiety and Depression Scale (HAD) (Zigmond and Snaith 1983).  | Yes | No  |
| Priest et al. (2003)   | Impact of Events Scale, EPDS<br>PTSD questionnaire (Blake 1995).  | No  | Yes |
| Ryding et al. (2004)   | Edinburgh Postnatal Depression Scale, Impact of Events Scale.   | No  | No  |
| Selkirk (2006)         | Dyadic Adjustment Scale, State Trait Anxiety Scale, EPDS, Perception of Birth Scale, Intrapartum Intervention Scale, Impact of Events Scale, Parenting Index Short Form, Feedback after Debriefing Questionnaire. | No  | No  |
| Tam et al. (2003)      | Clinical Global Impressions , General Health Questionnaire, HAD, Client satisfaction (6 weeks only), Quality of Life Questionnaire (6 weeks and 6 months).  | No  | No  |

**Table 3.3 Length of Follow Up**

| <b>Study</b>            | <b>Follow Up</b>   |
|-------------------------|--|
| Di Blasio et al. (2002) | 2 months postnatally via phone                             |
| Gamble et al. (2005)    | 3 months for all measures                                  |
| Kershaw et al. (2005)   | 20 weeks postpartum (10 weeks after the last intervention) |
| Lavender et al. (1998)  | 3 weeks postpartum   |
| Priest et al. (2003)    | 2, 6, and 12 months postpartum                             |
| Ryding et al. (2004)    | 6 months postpartum  |
| Selkirk et al. (2006)   | 1 and 3 months postpartum                                  |
| Tam et al. (2003)       | 6 weeks and 6 months                                       |

### **3.2.5 Data analysis**

The Potsdam guidelines (Cook, Sackett and Spitzer, 1995) suggest that reviews should include all relevant and clinically useful measures of treatment effect in the analysis. As this review only included eight heterogeneous papers it was not deemed appropriate to submit them to meta-analysis and a narrative qualitative summary was appropriate (Cook, Sackett and Spitzer, 1995).

### **3.3 Findings**

Of the eight studies included in the review, one was conducted in Italy, three in Australia, two in the UK, one in Sweden and one in Hong Kong.

Table 3.4 shows an overview of the main features of each study.

**Table 3.4 Overview of studies included in the review**

| <b>Author/<br/>Reference</b> | <b>Title</b>   | <b>Aims</b>   | <b>Intervention</b>   | <b>Method</b>   | <b>Sample</b>   | <b>Analysis</b>   | <b>Results/<br/>Findings</b>   | <b>Quality of<br/>study and<br/>score using<br/>Kmet et al.<br/>(2004) criteria</b>   |
|------------------------------|--|---|---|---|---|---|--|---|
| Di Blasio, & Ionio (2002)    | 'Childbirth and narratives: How do mothers deal with their child's birth?' | To ascertain whether psychological expression of negative emotions after childbirth could reduce the occurrence of stress symptoms after labour and delivery. | Written emotional expression of their birth story for 10-15 minutes within 72 hours of the birth. | Two days after birth women were asked to write for 10-15 minutes about the thoughts and feelings they had when experiencing the birth. They were asked to disclose private thoughts and views about the professionals present. They then filled out a PTSD questionnaire at 2 days postnatally and 2 months. Follow up occurred at 2 months using a PTSD questionnaire via telephone. | 58 women randomised to either intervention (26) and control group(32) Sample excluded women with pregnancy related problems, personality disorders, and included those with no complications related to labour and no morbidity in either mother or baby post partum. | P values were calculated but confidence intervals were not. | Symptoms of avoidance and arousal were both significantly reduced after the intervention compared with the control. However the presence of unexpected feelings and thoughts connected to the birth experience was unchanged. The PTSD questionnaire was only partial. | Score = 65% . No mention of blinding and many factors were only partially reported such as, description of the objective, appropriate study design, comparison between subjects at baseline, adequate sample size, methods of data analysis and display and randomisation . |

|                       |   |  |  |   |   |  |  |   |
|-----------------------|---|--|--|---|---|--|--|---|
| Gamble, et al. (2005) | 'Effectiveness of a Counseling Intervention after a Traumatic Childbirth: A Randomized Controlled Trial', | To assess the effectiveness of counselling after women experience traumatic stress symptoms following childbirth | Face to face counselling for 40-60 minutes within 72 hours of the birth and telephone counselling at 4-6 weeks postnatal | Women received face to face counselling within 72 hours of the birth, followed by telephone counselling at 4-6 weeks postpartum. Duration of intervention 40 - 60 minutes. Women were recruited during their last trimester of pregnancy and questionnaires administered further questionnaires were administered at 4 to 6 weeks postpartum. Follow up of all measures was at 3 months | 103 Women control 950) intervention (53) Women experiencing still birth or neonatal death were excluded. Women had to be over 18 years of age expected to give birth to a live infant and able to complete questionnaires and interviews in English to be included. | An independent samples t test was carried out on PTSD total symptom scores | The intervention was effective in reducing symptoms of trauma, depression, stress, and self-blame. But there was not statistical difference between the intervention and control groups. A trend emerged at 3 months showing that the intervention had a positive effect in reducing trauma symptoms over the longer term. Women favoured 4 weeks post partum as the ideal time to talk about the birth. | Score = 88%. The weakest areas were sample size, evidence of the study design and a good link between results and conclusions |
| Kershaw, et           | 'Randomised   | To assess  | Structured   | RCT of community  | 319 women.  | Data were  | Women in the   | Score = 96%.  |

|                                |   |   |   |   |   |   |   |   |
|--------------------------------|---|---|---|---|---|---|---|---|
| al. (2005)                     | Controlled Trial of Community Debriefing Following Operative Delivery', | whether women who had experience a high level of intervention in their birth became less fearful of birth after a debriefing intervention | community critical incident stress debriefing by midwives in the woman's home at 10 days and 10 weeks postnatal | debriefing of birth following operative delivery RCT. Structured debriefing at 10 days and 10 weeks post delivery in women's own homes following a critical incidence stress debriefing protocol. Measures were completed at 10days 10 weeks and 20 weeks post partum (debriefing group completed questionnaires prior to intervention) | Inclusion criteria were mothers who had delivered first child by operative delivery. Exclusion criteria were those not able to speak or read English, had experienced a still birth or neonatal deal, also if they were ill on ITU or the baby was in a critical condition on SCBU. | analysed using a 2 tailed independent t test and a Mann Whitney U test.         | intervention group had lower WDEQ and IES scores at each stage. However debriefing made no significant difference to the incidence of PTSD. In both groups the number of women with clinically significant scores decreased over time |   |
| Lavender and Walkinshaw (1998) | Can Midwives Reduce Post Partum Psychological Morbidity?',              | To provide a postnatal listening service in order to reduce psychological morbidity following childbirth                                  | Postnatal listening and discussion individually for 30-120 minutes within 72 hours of the birth                 | Midwives provided Postnatal listening and discussion for 30-120 minutes individually before transfer back home. Anxiety and depression were then assessed at 3  | 120 women which included primagravida , singleton pregnancy, cephalic presentation ,  | Exact confidence tests were used with odds ratios and 95% confidence intervals. | Women in the experimental group were less likely to have high anxiety and depression scores 3 weeks after delivery. Women in the  | Score = 88<br>A partial score was given in three areas: description of the study objective, reporting of blinding and |

|                      |  |  |  |  |   |  |  |                                     |
|----------------------|--|--|--|--|---|--|--|-------------------------------------|
|                      |  |  |  | weeks postpartum   | spontaneous labour at term, normal vaginal delivery of a healthy baby. Excluded if third degree tear, manual removal of placenta, baby in SCBU, women in ITU.                         |  | experimental group were more satisfied than those in the control group.  | calculation of adequate sample size |
| Priest, et al.(2003) | 'Stress Debriefing After Childbirth: A Randomised Controlled Trial', | To ascertain whether Stress debriefing and a diagnostic psychological interview were successful in reducing the incidence of stress disorders after childbirth | Critical incident stress debriefing individually 24-72 hours after the birth | The study was based on seven key stages from the critical incident stress debriefing model of Mitchell. The intervention group received a single session in their hospital room between 24-72 hours post delivery. 25% of women also received a structured diagnostic psychological interview. The | 1745 (870) control (875) intervention Inclusion: delivered at or near term, exclusion poor level of English, already under psychological care, less than 18 years, baby needing SCBU. | Kaplan – Meier survival analysis was carried out on the data | No effect on the prevalence of stress disorders or on the time to onset of depression or duration of depressive episodes. Most women rated it as helpful in processing the events around the birth | Score = 100%.                       |

|                        |  |   |   |   |   |   |  |   |
|------------------------|--|---|---|---|---|---|--|---|
|                        |  |   |   | measures were administered at 2 6 and 12 months post partum.  | Those receiving psychological treatment at the time of the delivery |   |  |   |
| Ryding, et al.(2004)   | 'Group Counseling for Mothers After Emergency Cesarean Section: A Randomised Controlled Trial of Intervention' | To assess whether group counselling session were effective in reducing fear of childbirth and PND and PTSD symptoms after caesarean section | Group counseling 2 sessions lasting 2 hours 2-3 weeks apart                 | Group Counseling intervention after emergency CS .RCT. Groups consisted of 4-5 women with a midwife and a psychologist, lasting 2 hours. Two sessions 2-3 weeks apart. Women were encouraged to tell their stories and share experiences. Follow up questionnaires were completed at 6 months post partum | 164 ; (59 intervention, 65 control) women post Caesarean section.   | P values were calculated                                  | The level of fear of childbirth was the same after 6 months regardless of the intervention. Women in both groups had the same frequency of PTSD symptoms and PND symptoms. Intervention group women reported better PN mental health but this was not statistically significant. | Score = 77%. The main issues were no control for confounding and no reporting of the blinding status of the subjects. |
| Selkirk, et al. (2006) | 'The Longitudinal Effects of Midwife Led postnatal Debriefing  | To assess the effects on psychological morbidity of debriefing after childbirth   | Individual Psychological debriefing lasting 30-60 minutes 48-72 hours after | Midwife led psychological debriefing after birth. Took place 2-3 days post partum. The session lasted   | 149 women. No information given on inclusion/ exclusion             | Chi Square and t –tests were carried out and a serried of | Women in the intervention group were no less likely to develop symptoms of   | Score = 65% The main issues of concern were that no blinding was  |

|  |  |  |       |  |           |   |  |  |
|--|--|--|-------|--|-----------|---|--|--|
|  | on the Psychological Health of Mothers', |  | birth | 30-60minutes, private not group. Consisted of 8 phases; introduction, summary of birth experience, share thoughts about the birth, share feelings about the birth, description of current experience, education about what is normal, midwife summarizes what the mother has said. Between 28 weeks gestation and delivery all measures were completed, at 1-2 days postpartum and at 3 months postpartum further measures were completed. | criteria. | split plot analyses of variance (SPANOVA) were used to test whether the treatment worked. | PND than the control group. Also there was no difference between groups for levels of anxiety – all groups decreased over time. However mothers in the intervention group showed no loss of dyadic satisfaction whereas control group women did. Those with instrumental births who were debriefed had more negative perception of the birth than those who had low levels of intervention and were debriefed. Women who were debriefed rated the experience | mentioned subjects or investigators, no inclusion criteria were mentioned, no raw data were presented. |
|--|--|--|-------|--|-----------|---|--|--|



|                   |   |  |  |   |  |  |  |   |
|-------------------|---|--|--|---|--|--|--|---|
|                   |   |  |  |   |  |  | positively.  |   |
| Tam, et al.(2003) | 'A Randomised Controlled Trial of Educational Counselling on the Management of Women who have Suffered Suboptimal Outcomes in Pregnancy', | To ascertain the effect of midwife led educational counseling on psychological wellbeing and anxiety of women who had experienced instrumental births. | Individual educational counseling lasting 35 minutes for 1-4 sessions. | This consisted of 2 main components, an explanation of the clinical reasons for the adverse event experienced and a chance for the women to discuss their feelings in relation to the unexpected events. Number of sessions ranged from 1-4 and the mean duration was 35 minutes. A set of measures were administered before counseling and before discharge. Follow up took place at 6 weeks and 6 months postpartum where further measures were administered. | There were 560 women 261 in counseling group 255 in control Inclusion categories: 1. Antenatal complications, 2. Elective CS, 3. Emergency CS, 4. Instrumental vaginal delivery, 5. Induction of labour, 6. Postnatal maternal complications, 7. Admission to SCBU. Women were excluded if they did not have permanent residential | Statistical analysis was performed using SPSS groups were compared using the Mann – Whitney $\mu$ test | Educational counseling was found to have no effect of psychological wellbeing, depressive or anxiety symptoms, quality of life or client satisfaction. | Score = 82% It scored only partially in the following areas, comparison of subjects at baseline, reporting of blinding and controlling for confounding. |

|  |  |  |  |  |   |  |  |  |
|--|--|--|--|--|---|--|--|--|
|  |  |  |  |  | rights or if they would leave the area within 6 months. |  |  |  |
|--|--|--|--|--|---|--|--|--|

### **3.3.1 Type of participants**

Bastos et al. (2009) suggest that there will be three types of participants in a RCT: universal, selected and indicated intervention. Of the eight studies reviewed, there was a mix of selected (the most common selection being operative delivery or suboptimal outcomes) and universal participants. None of the studies recruited participants where previous trauma or distress had been previously identified (see table 3.1).

### **3.3.2 Sample size**

The consideration of sample size is important when determining the robustness of a study as larger studies are more likely to produce statistically reliable results. The strongest studies, which scored over 95% using the Kmet et al. (2004) system, were those by Priest et al. (2003) and Kershaw et al. (2005) who used power calculations to determine sample size. Priest et al. (2003) undertook a study involving 1745 women; 870 were allocated to the control group and 875 to the intervention group. The power calculation showed they would need 850 women in each group to detect a reduction in outcome of 5% at 80% power and alpha =0.05 (which was achieved). They calculated that the sample size would also have 80% power to enable subset analyses with parity and mode of delivery groups. Kershaw et al. (2005) recruited 319 women; 158 were randomised to the control group and 161 to the debriefing group, far more than the 80 participants necessary to obtain a power of 80%.

Studies scoring between 80% and 95% for quality included Lavender and Walkinshaw (1998), Tam et al. (2003) and Gamble et al. (2005) however only Tam et al.

(2003) used a power calculation. Ryding et al. (2004) had performed a power calculation and required 100 participants to achieve a power of 80, however only 59 women attended the counselling intervention and the authors comment that the validity of the study may have been limited by its relatively low power. The papers with the lowest quality grading were Di Blasio and Ionio (2002) and Selkirk et al. (2006): in the former no power calculation was used and the sample size was low as only 58 women were recruited. In the latter, although 149 women were recruited, no power calculation was included and the authors acknowledged that there may have not been enough participants to produce robust results.

### **3.3.3 Diagnostic scales and their efficacy**

There was a range of main outcome measures used to assess the effectiveness of the intervention (see table 3.4). Some were general in scope i.e. reduction of postnatal psychological morbidity (Lavender and Walkinshaw, 1998; Priest et al., 2003; Tam et al., 2003; Ryding et al., 2004 and Selkirk et al., 2006) while others (Di Blasio and Ionio, 2002; Gamble et al., 2005) focussed on reduction of PTSD symptoms.

In the three studies where the intervention was assessed as effective there were no evaluative tools used in more than one study. Only Di Blasio and Ionio (2002) measured specifically for PTSD symptoms and found that the intervention was effective. Lavender and Walkinshaw (1998) state that the Hospital Anxiety and Depression Scale may not have been the most appropriate measure to assess the level of anxiety of women during the postnatal period, as the scale has not been validated for postnatal use. However subsequent studies have also used this scale.

### 3.3.4 Type of intervention

Table 3.5 provides detailed information about the nature and timing of the intervention in each study. Only one author reported the use of groups (Ryding et al., 2004) the rest used individual sessions. Selkirk et al. (2006), Priest et al. (2003) and Gamble et al. (2005) included detailed accounts of the counselling used and Di Blasio and Ionio (2002) included the specific writing instructions given to participants. Other authors were less specific regarding the details of the intervention. The authors of all the studies employed the intervention during the first few days after birth.

**Table 3.5 Nature timing and duration of intervention**

| Study                   | Intervention                               | Timing   | Duration                             |
|-------------------------|--|--|--------------------------------------|
| DiBlasio & Ionio (2002) | Expressive writing about labour experience | 2 days after the birth session                                       | 1 session lasting 10-15 minutes      |
| Gamble et al. (2005)    | Face to face counselling                   | 72 hours after birth and again via telephone at 4-6 weeks postpartum | 1 session between 40 – 60 minutes    |
| Kershaw et al. (2005)   | Face to face 'debriefing lasting           | 10 days and 10 weeks postpartum                                      | 2 sessions up to 90 minutes.         |
| Lavender et al. (1998)  | Face to face 'interactive interview'.      | Within the first couple of days of birth                             | 1 session between 30 and 120 minutes |
| Priest et al. (2003)    | Critical stress debriefing session         | Within 72 hours of birth   | 1 session between 15-60 minutes      |
| Ryding et al. (2004)    | 2 group counselling sessions               | At 2 months postpartum 2-3 weeks apart                               | 2 sessions lasting 120 minutes.      |
| Selkirk et al. (2006)   | Debriefing                                 | Within 3 days of birth   | 1 session 30-60minutes               |
| Tam et al. (2003)       | Educational counselling                    | Shortly after birth  | 1-4 sessions lasting 25-50 minutes.  |

### **3.3.5 Type of professional delivering the intervention**

The majority of authors used midwives to conduct the intervention. In some studies, midwives received specific counselling training (Gamble et al., 2005; Kershaw et al., 2005; Priest et al., 2003), whilst in others it was left to individual judgement regarding the content length or number of sessions offered (Ryding et al., 2004; Tam et al., 2003; Lavender and Walkinshaw, 1998).

### **3.3.6 Intervention and control components**

In the study by DiBlasio and Ionio (2002) the intervention consisted of asking women who were approximately 48 hours postnatal and had experienced a 'normal' birth with no complications to write a brief account of their labour (to include their thoughts and feelings) within a 10-15 minute time period. The control group received normal postnatal care.

In all other studies the intervention was either a type of counseling (Gamble et al., 2005; Ryding et al., 2004; Tam et al., 2003) or debriefing (Selkirk et al., 2006; Kershaw et al., 2005; Priest et al., 2003). Additionally the Lavender and Walkinshaw (1998) study was described as a face to face interactive interview. All studies included a matched control group where usually standard postnatal care was offered. Authors of some studies offered women in the control group an individual consultation to discuss their birth experience if they wished, but this occurred after they had completed the questionnaires (Ryding et al., 2004). Levels of past PTSD were not determined for participants in any of the studies.

### **3.3.7 Primary and secondary outcomes**

Di Blasio and Ionio (2002) reported that symptoms of arousal and avoidance (markers of PTSD) were reduced after the intervention, while Gamble et al. (2005) found that the intervention appeared to reduce symptoms of trauma, depression, stress and feelings of self-blame. Symptoms of depression were also lowered after the intervention in the Lavender and Walkinshaw (1998) study.

The studies which were ineffective in symptom reduction measured the following; fear of childbirth and PTSD (Kershaw et al., 2005), stress disorders and the onset of PND (Priest et al., 2003), fear of childbirth, PND and PTSD (Ryding et al., 2004), PND, anxiety, dyadic satisfaction and perception of birth (Selkirk et al., 2006) and quality of life, anxiety and depression (Tam et al., 2003).

### **3.3.8 Comparison of studies with beneficial intervention**

Of the three studies where a benefit to the intervention was found, authors of two used selection criteria for trauma symptoms and for normal birth (Gamble et al., 2005; Lavender and Walkinshaw, 1998) and the authors of another used the intervention universally (Di Blasio and Ionio, 2002). Di Blasio and Ionio (2002) used a writing intervention (one episode) whereas authors of both other studies used face to face counselling on either one (Lavender and Walkinshaw, 1998) or two occasions (Gamble et al., 2005). In all three studies the intervention was administered within 72 hours of the birth. However, other studies where this was the case (Selkirk et al., 2006; Priest et al., 2003; Tam et al., 2003) failed to show any benefits. There appears to be little in common between the interventions and not enough studies were available to determine a universally successful intervention.

### **3.3.9 Reported statistics**

In the three studies where the intervention was effective in reducing the symptoms of psychological morbidity, none of the authors performed power calculations so it is unclear whether there was a large enough sample size to ascertain whether the results could have been due to chance. However Gamble et al. (2005) and Lavender and Walkinshaw (1998) described and used suitable analytic methods to interpret their results. Gamble et al. (2005) used Pearson's correlation chi square tests and t tests, whereas Lavender and Walkinshaw (1998) used Fisher Irwin two tailed analysis and calculated confidence intervals. Although not described in detail, Di Blasio and Ionio (2002) did report variance of their results.

In the studies where the intervention was ineffective, the use of statistical methods was variable; Priest et al. (2003) used standard deviation, however Kershaw et al. (2005), Ryding et al. (2004) and Tam et al. (2003) all reported the use of confidence intervals, Mann-Whitney tests and standard deviation respectively.

## **3.4 Discussion**

The main limitations of this review were the low number of papers which met the inclusion criteria and the heterogeneity of the studies. However, having examined the studies in detail there are a number of issues worth discussion. The three studies which showed improved psychological morbidity used differing interventions; written emotional disclosure (Di Blasio and Ionio, 2002), face to face counselling (Gamble et al., 2005) and listening and discussion (Lavender and Walkinshaw, 1998).



### **3.4.1 Effects due to participant selection**

In terms of participant selection the studies all differed; Di Blasio and Ionio (2002) were unselective, Gamble et al. (2005) selected for trauma symptoms and Lavender and Walkinshaw (1998) selected for normal vaginal birth. Thus it seems unlikely that the effects of the intervention are due simply to a particular choice of participants. Slade (2006) suggested that emergency Caesarean section (CS) and instrumental delivery are external perinatal precipitating factors associated with subsequent post-traumatic stress symptoms, so psychological morbidity would be more likely to arise after a perinatal intervention or operative delivery. However, none of the studies where the intervention was found to be effective was specifically selective for CS or instrumental delivery. When no selection took place it can be assumed that some participants had perinatal intervention, particularly since the latest UK Caesarean rate is 24.8% (NHS Maternity Statistics, 2010). Some of the participants in the Gamble et al. (2005) study will also have experienced interventions, but as none of the participants in the Lavender and Walkinshaw (1998) study had, one can conclude that although CS and instrumental delivery can contribute to PTSD, it is not necessary to have experienced them to have PTSD symptoms. There is evidence that one to one care is rarely achieved for women in labour, despite women citing this as an important aspect of their satisfaction with the birth experience (Gamble et al., 2007; Czarnocka and Slade, 2000). It is possible that without one to one care women may be more likely to perceive labour as a traumatic experience, potentially resulting in higher rates of PTSD. However this requires further research.

### **3.4.2 Time course of PTSD with respect to the intervention**

Patients usually present with PTSD symptoms three to twelve months after the traumatic event (NICE, 2005). However in the eight studies under review the intervention was administered well before this time. This may have been related to the convenience of administering 'preventative' therapy whilst the women were still in hospital, so it is debatable how many of the participants were suffering symptoms that would have pointed to a diagnosis of PTSD at the time of the therapy.

The DSM IV (APA, 1994) criteria, which define PTSD, state that symptoms of re-experiencing, avoidance of the traumatic incident, numbing and increased arousal need to be present for more than one month to constitute a clinical diagnosis of PTSD (NICE, 2005). DiBlasio and Ionio (2002) measured PTSD symptoms at only two days after childbirth, however some of the women who initially scored highly for these symptoms after the birth of their baby may not have gone on to develop PTSD. Furthermore, as only small numbers of participants were involved, a true positive effect may have been confounded by natural recovery over time. It is possible that Di Blasio and Ionio (2002) measured symptoms of acute stress, as there is likely to be symptom overlap between acute stress disorder (ASD) and PTSD. When general stress symptoms have been diagnosed early on they may not point to subsequent development of PTSD and not all those with PTSD will have suffered previous ASD (Bryant, 2010). So a proportion of women who show little acute stress symptomatology are likely to be missed if treatment is focussed on the immediate postpartum period. Thus the authors of some of the studies included in this review may have actually measured ASD rather than PTSD, while some women who subsequently went on to develop PTSD may not have met the criteria for ASD at the

time of the study. Consequently both intervention and control groups may have shown more PTSD symptoms over time that could not be detected in the first few days after the birth, thus confounding the results. From these results we can conclude that future research studies should be designed to measure PTSD at least one month after the birth because the APA (1994) diagnostic criteria suggest that symptoms must be present for at least a month for a diagnosis of PTSD to be made.

Although the intervention employed by Gamble et al. (2005) was successful in reducing trauma symptoms, depressive symptoms and feelings of self blame, the authors note that by the three month follow up there were no differences in the number of women with PTSD between control and intervention groups. However the authors of the Gamble study originally used the DSM IV criterion A (APA, 1994) to screen for inclusion into the control or intervention groups and it may have been possible that this then included women with a past history of PTSD. In order to remove such confounding factors it is important that future studies ascertain the presence of pre-existing PTSD before employing the intervention.

The intervention used by Ryding et al. (2004) was not effective in reducing psychological morbidity even though the counselling sessions occurred one to two months postpartum, thus allowing sufficient time for PTSD to develop. The women in the study would have liked more sessions and if this had been the case it is possible that the intervention would have been effective. Ayers et al. (2006a) suggest that debriefing may only be effective if targeted at women who have severe symptoms of PTSD immediately after the birth; however this would imply that the debriefing was aimed at ASD and not PTSD. Alternatively Brewin et al. (1999) predicted subsequent PTSD by assessing only three or more intrusive symptoms three weeks after the

trauma, using PTSD patients with aetiology other than childbirth. It may therefore be possible for midwives to administer a simple screening tool during postnatal checks to detect women at risk of developing PTSD. However, as routine postnatal contact time is reduced for both midwives and health visitors there is likely to still be a problem reaching postnatal women in the community.

In most of the studies under review the intervention was delivered in the first few days after the birth. This would have been methodologically straightforward as many of the women would still have been in hospital. However it is interesting to postulate the effect had the interventions been administered several weeks later. Documents produced by both WHO (1992) and NICE (2005) state that onset of PTSD usually occurs between one and six months after the traumatic event. Soderquist, Wijma and Wijma (2006) found that PTSD reactions occurred between one and six months postpartum, the results from their longitudinal study show that PTSD symptoms do not decline with time without treatment. It is possible that in the studies under review the 'intervention' has been used too early for it to be effective. Additionally Bryant (2007) in a review of debriefing and CBT for non-childbirth related PTSD found that early intervention was unlikely to reduce PTSD symptoms. However the authors in the studies reviewed here may have been successful in reducing acute stress symptoms in participants.

### **3.4.3 Type of intervention offered**

The National Institute for Health and Clinical Excellence guideline on antenatal and postnatal mental health (NICE, 2007) does not recommend routine formal debriefing for women after a traumatic birth. Additionally, previous studies of non-

childbirth related PTSD showed that critical incident stress debriefing was not useful for prevention or treatment (Rose, et al., 2002). Of the interventions described, three involved debriefing and only one of these was found to have a successful outcome (Gamble et al., 2005). This may help to consolidate other findings that debriefing is not officially recommended, partially because it is provided too early after the traumatic event (NICE, 2007). Most clinicians would seek to 'prevent' symptoms, which is why a 'debriefing' approach would seem the method of choice. However it is useful to look at the choice of intervention in the light of the time course of development of PTSD symptomatology.

Interestingly only one research group used structured writing as the intervention (Di Blasio and Ionio, 2002). However, van Emmerik, Kamphuis and Emmelkamp (2008) compared the use of structured writing and CBT for treating PTSD unrelated to childbirth and found that both therapies reduced intrusive symptoms, depression and state anxiety. Given that comparatively little research exists on psychological treatment strategies for postnatal PTSD, it would be worth investigating structured writing for postnatal women, particularly as this type of therapy would involve less of the health professional's time and enhance the autonomy of the women. Indeed several authors have advocated the use of work books or internet based therapies accessible from home (Beck, 2005; Lange et al., 2001).

#### **3.4.4 Length of follow up**

The range of follow up periods for the studies was one to six months. On the whole researchers undertaking the studies that employed a beneficial intervention tended to use a shorter follow up time (see table 3.3.) and it is uncertain whether the

effect of treatment would be lost over time. However, Selkirk et al. (2006) found that the state anxiety scores fell for all participants of their study over time, regardless of treatment condition, so it appears that natural recovery can occur as the event becomes a more distant memory.

#### **3.4.5 Variability of outcomes measured**

The authors of four studies under review (Selkirk et al., 2006; Kershaw et al., 2005; Ryding et al., 2004; Priest et al., 2003) used the IES and these studies did not show that the intervention was effective. As the IES provides a quantitative measure of intrusive and avoidance symptoms of PTSD but does not actually diagnose PTSD, it could be argued that the scale was perhaps less sensitive than others and so changes in psychological well-being were not detected.

#### **3.4.6 Feedback from participants**

In most studies reviewed, even when the intervention was ineffective, a high proportion of the participants welcomed the opportunity to speak or write about their birth experience with health professionals postnatally. Possibly an intervention lasting only an hour may not be enough to make a measureable impact on the mental health of the women over a longer time period, but it may increase their sense of wellbeing at the time. Also in one study women requested further sessions (Ryding et al., 2004). This may help to explain the findings of a previous review in which the authors concluded that single counselling sessions conducted in the immediate postpartum were not effective in reducing PTSD (Gamble and Creedy, 2004).

Two authors (Kershaw et al., 2005; Tam et al., 2003) discuss whether the Hawthorne effect (Mayo, 1933) impacted upon the results because, women attending

a counselling session would have known that they were receiving a positive intervention. However it is likely that this would have increased differences between the control and intervention groups and authors of neither study found significant differences between the control and intervention groups after the intervention. If the Hawthorne effect is problematic, (McCarney, et al., 2007) perhaps future research should include a control group where participants spend an equal amount of time with health professionals after the birth but are not encouraged to talk about the birth, thus constituting a control which is not 'empty'. Frattoroli (2006) conducted a meta-analysis of writing therapy for PTSD and suggested that controls should not be 'empty' and all groups should initially be given an explanation about the usefulness of the intervention.

### **3.5 Implications for Future Research and Clinical Practice**

A significant drawback of most of the studies under review was the measurement and treatment of PTSD symptoms in the immediate post-partum period, when it is known that the disorder has a time course of months rather than days. This may mean that for many women the long term negative impact of their birth experience is not detected, as they will no longer be under the care of a midwife and may not present to their general practitioner with mental health problems. Reluctance to seek help may be exacerbated by the high demands of a new baby and societal expectations that women should be happy and fulfilled in their new role as discussed earlier (Hall and Wittkowski, 2006; Choi et al., 2005).

In comparison with postnatal depression (PND), where the Edinburgh Postnatal Depression Scale (EPNDS) is the screening tool of choice (Cox et al., 1986) postnatal

PTSD is not screened for routinely. Health care professionals, specifically midwives, need a well validated, easy to use scale, which could be administered in clinical practice as well as in a research context. Unfortunately the present system relies upon women self-reporting their symptoms, which may leave a large proportion of PTSD sufferers isolated and untreated. This compares unfavourably with the societal understanding of and support available for those suffering from PND.

Darvill, Skirton and Farrand (2010) conclude that current postnatal midwifery support is focussed upon the physical changes associated with the postpartum, rather than supporting the psychological needs of new mothers. However, in order to provide psychological support, midwives need to be aware of the importance of how they interact with women perinatally. Czarnoka and Slade (2000), Slade (2006), Seng et al. (2009) and Lapp et al. (2010) all emphasise the importance of a past history of PTSD, other mental health problems or past sexual or emotional abuse as potential predictors or triggers of postnatal PTSD. This highlights the importance of midwives being aware of a woman's history from the time of the booking appointment to enable support mechanisms to be initiated earlier and potentially reduce the chance of PTSD occurring.

Previous studies have questioned the use of 'preventative' therapies (Bryant, 2007; Slade, 2006) so targeting resources towards screening to identify women at higher risk of future PTSD may be more beneficial than offering debriefing to an unselected group. Additionally, research shows that if the women perceive that they are validated and supported by health care professionals they are more likely to disclose to or seek advice from them (Gerbert et al., 1999).



Given that critical incident stress debriefing is no longer recommended (NICE, 2005) and that face to face counselling and written emotional disclosure were found to decrease PTSD symptoms, researchers should focus on these therapies using a larger cohort of women and explore the impact of a greater number of counseling or writing sessions. Additionally it is imperative that future researchers ascertain the existence of previous or current PTSD or trauma prior to the birth experience. Researchers should also be aware of the crucial timing implications of their intervention and if they set out to measure the effect on PTSD symptoms it is important that they administer the intervention only after PTSD is likely to be present. It is recommended that further studies seek to use treatment within participants' own homes to make access and participation easier.

### **3.6 Conclusions**

Since this review found three types of intervention to be effective, it can be concluded that there is insufficient evidence to determine which treatment strategy works best.

A coordinated approach to develop and utilize a universal PTSD instrument, encourage awareness of previous psychological trauma and investigate suitable timing of interventions is necessary to facilitate improved management of perinatal mental health problems. This review was published in the journal *Midwifery* in 2013 (see bound in copy on page 525, permission to use this has been granted by Elsevier). Based on the findings of this review further investigation of a writing intervention for postnatal PTSD was supported. The next chapter describes a review of reviews of

writing therapy that was conducted to establish the most effective conditions for the intervention.

## **4 Critical Appraisal of Three Reviews of Writing Therapy or Written**

### **Disclosure**

#### **4.1 Introduction**

As a result of reviewing midwifery literature regarding interventions for postnatal PTSD in Chapter three I decided that expressive writing may be a possible intervention to consider for the current study (the feasibility study). However, in order to determine the most effective experimental parameters I conducted a review of reviews. It has recently been acknowledged that in health research a plethora of reviews relating to interventions exists. Thus a review of reviews could be regarded as a logical next step to provide a wider comparison of available evidence for intervention efficacy (Smith et al., 2011). By employing this technique I was able to access findings from 165 primary studies. A review of literature conducted in 2009 revealed three recently published reviews of writing therapy Mogk et al. (2006) Meads, Lyons and Carroll (2003) and Frattaroli (2006) these three reviews were compared and critically analysed in order to identify possible effective approaches for study design with respect to the current study. A further meta-analysis is also compared with those above (Frisina, Borod and Lepore, 2004) however not in as much depth as the authors of the review did not restrict inclusion criteria to RCTs only as originally the current study had been conceived as a RCT so this was perhaps less relevant .

#### **4.2 Method**

In order to determine which variables most influence the effectiveness of writing therapy, I carried out a search for evidence in 2009. I searched the following

databases; Psychinfo, Cochrane, Medline, PILOTS, CINAHL, BNI. The key search terms used were 'writing therap\*' or 'disclosure' or 'expressive writing' or 'therapeutic writing'. The search was restricted to papers written in English between 1999 and 2009; this ten year window was selected as most of the research relating to writing therapy was carried out during this period. Searching revealed 53 papers where writing therapy had been used to treat depressive and stress symptoms resulting from trauma. It also revealed one meta-analysis which I was able to draw upon for methodological details (Frattaroli, 2006). A table comparing the studies can be found in Appendix i. Subsequent hand searches revealed two further large reviews of writing therapy (Mogk et al., 2006; Meads, Lyons and Carroll, 2003) which were generally less supportive of writing therapy. As this was extremely pertinent to the current study, a critical appraisal of the reviews carried out by Meads et al. (2003) Mogk et al. (2006) and Frattaroli (2006) was undertaken.

## **4.3 Results**

### **4.3.1 Study design**

Frattaroli (2006) included 146 studies of experimental disclosure whereas Meads, Lyons and Carroll (2003) included 61 trials and Mogk et al. (2006) reviewed only 30. The main emphasis of the Meads, Lyons and Carroll (2003) review was longer term and intermediate physiological health outcomes. The main emphasis of the Frattaroli meta-analysis was an exploration of the moderators of expressive writing for both psychological and physical health, and the emphasis of the study by Mogk et al. (2006) was the long term effects of expressive writing on physical and psychological health.

Mogk et al. (2006) found that only 30 studies generated data suitable for meta-analysis, of these 27 were based on randomisation and three used a matching procedure, 20 studies were published before 2000 and three before 1990. Notably only four studies included clinical samples, making it hard to claim a comprehensive effect as so few studies were included with a diagnosed clinical morbidity.

#### **4.3.2 Sampling**

Mogk et al. (2006) reported that the majority of participants were female (64%) this may account for reduced effect sizes as Smyth (1998) reports that men are more likely to benefit from writing therapy. He suggests that this may be due to the fact that they are less likely to have previously disclosed the event and therefore when asked to write they tend to focus more on the trauma than women do.

Meads, Lyons and Carroll (2003) identified 61 studies for inclusion in their review. Of these only 18 were RCTs where participants were under psychological stress or had PTSD. Most of the studies reviewed contained healthy volunteers who had taken part in return for course credits (as was the case with many of Pennebaker's (1986) studies). However interesting data are presented from non RCT studies that link emotional expression with a decreased likelihood of various types of cancer.

Another difference between the Mogk et al. (2006) and Meads, Lyons and Carroll (2003) studies was the fact that Meads, Lyons and Carroll (2003) included studies with a sample size of less than ten and so were more likely to show no significance in outcome measures. Sample size calculations are important when conducting RCTs and as a general rule a larger sample size is likely to generate more power (Bryman, 2001), thus in the studies included in the Meads, Lyons and Carroll

review (2003) reporting of effect sizes may have been compromised by relatively small sample size. Additionally Meads, Lyons and Carroll (2003) did not include follow up measures for analysis if they were only employed immediately after the intervention.

Frattoroli (2006) comments that sampling bias is unavoidable as small effect size studies are unlikely to be published and are therefore harder for reviewers to obtain. If such studies were included in analysis a smaller overall effect size is likely.

#### **4.3.3 Search terms**

In their study, Meads, Lyons and Carroll (2003) used only two key words (see table 4.1) and since they would apply to many areas it is not surprising that, compared with the Mogk et al. (2006) study, a larger number of original publications were identified.

Frattaroli (2006) however, employed a greater number and broader range of search terms (see table 4.1). It is possible that by including a much larger number of studies, poorer quality work (which had been excluded by Mogk et al., 2006 and Meads, Lyons and Carroll, 2003), could have contributed to the finding of an overall positive outcome. All authors performed supplementary hand searches, although the date between which searching was carried out was unclear in the paper by Mogk et al. (2006). Meads, Lyons and Carroll (2003) identified a large number of abstracts (1194) but as the criteria were broad this may have identified studies which were less relevant. Table 4.1 compares the search methods used by the authors of each of the reviews.

**Table 4.1 Summary of search methods used in each study**

|                    | <b>Meads, Lyons and Carroll (2003)</b>   | <b>Mogk et al. (2006)</b>                           | <b>Frattaroli (2006)</b> |
|--------------------|--|---|--------------------------|
| Databases searched | Cochrane Reviews database (2002, Issue 4), Medline (Ovid) (1966 – Feb 2003), Embase (1980 – Feb 2003) Cinahl (1982 – Feb 2003), Science Citation Index (Web of Science) (1981-Feb 2003) and ISSI (Mar 2003), FRANCIS (Mar 2003), | Psyindex, Pub Med, Medline and the Cochrane Library | Psych Info and Medline   |

|              |                        |  |   |
|--------------|------------------------|--|---|
| Search terms | Emotion and disclosure | Pennebaker, self-disclosure, disclosure and writing, self-disclosure and health, writing and stressful life events, critical life events and writing, written emotional expression, emotive writing, emotional expression and writing, and the German keywords "Selbstöffnung" and "Trauma and Schreiben". | 35 key words combinations of the following search terms: coping, coping behaviour, creative writing, depression (emotion), disclosing, disclosure, emotions, emotional adjustment, emotional control, emotional expression, emotional states, emotional, trauma, emotions, expression, expressive writing, grief, health, intervention, major depression, mental health, oral communication, Pennebaker, physical health, psychological health, posttraumatic stress disorder, randomly, self-disclosure, stress, stressful experiences, therapeutic, trauma, well-being, writing, written, and written communication |
| Search dates | 1966-2003              | No dates given   | 1986-2004   |



|                        |  |  |   |
|------------------------|--|--|---|
| Supplementary          | <p>A citation search on Pennebaker J.W. in BIDS ISI (Mar 2003)</p> <ul style="list-style-type: none"> <li>• A general search of internet sites using Google (July 2002) and Scirus (Aug 2002) (the first 100 references )</li> <li>• J.W. Pennebaker's website (July 2002) 25</li> <li>• Hand search of relevant journals and grey literature</li> <li>• Contact with key authors</li> <li>• Citations checked in reviews and RCTs identified by the searches</li> </ul> | Manual search, review search, contacting key authors   | A backward search, a forward search, manual search, contacting key authors and a conference program search  |
| Key inclusion criteria | <p>Only RCTs<br/>Any population<br/>Any type of emotional disclosure including verbal (without a listener)<br/>All types of control<br/>Objective or subjective measures.<br/>Immediate (physiological ) and non-immediate follow up (physical and psychological)</p>  | <p>Only RCTs<br/>A variation of the original Pennebaker method<br/>Control group also wrote<br/>Non immediate (four week or greater )follow up recorded<br/>Each specific data set was considered only once (in spite of multiple publications).<br/>The study had to comprise at least 10 subjects per group.<br/>The study had to be reported in English or German language.</p> | <p>Only RCTs<br/>A variation of the original Pennebaker method<br/>Study yielded statistical data<br/>Non immediate (day after the intervention or longer)follow up recorded<br/>Each specific data set was considered only once (in spite of multiple publications).</p> |

By including papers older than 1986, Meads, Lyons and Carroll (2003) would

have included articles where Pennebaker and Beall's (1986) standardised writing

instructions would not have been used. Cook, Sackett and Spitzer (1995) advise that

the comprehensiveness of the search strategy should depend on the field and the

particular research question being posed. Hemmingway and Brereton (2009) suggest that systematic reviews should always search more than one database as, for example, Medline may typically only publish half of all reviews. In addition they suggest that attempts should be made to access 'grey' literature and to contact authors to gain access to publications. It is clear that all authors being compared made attempts to do this.

#### **4.3.4 Selection criteria**

In terms of selection of studies the inclusion criteria varied. Mogk et al. (2006) selected only RCTs of expressive writing where participants assigned to the control group wrote about a neutral topic, follow up was at one month or more and the study comprised at least ten subjects per group. In addition only the long term effects of disclosure were analysed thus there was an interval of at least four weeks between last intervention and follow up.

Meads, Lyons and Carroll (2003) used inclusion criteria selected by one reviewer only. The authors also only included RCTs, but they were studies where expressive writing or verbal disclosure (without a listener present) was used. However, control criteria were less rigorous as studies using waiting list controls were included. Frattaroli (2006) conducted a meta-analysis of written emotional expression where an overall positive effect size was calculated. The inclusion criteria comprised; a RCT reporting statistical information sufficient to calculate an effect size, studies based on the official disclosure task of Pennebaker and Beall (1986) and the outcome variable measurement conducted at least one day after administration of the writing intervention.

#### **4.3.5 Type of participant**

Meads, Lyons and Carroll (2003) included roughly twice as many studies that used healthy volunteers (28) compared with studies with participants who had either pre-existing physical (13) or psychological symptoms (18), whereas Mogk et al. (2006) included 17 studies where healthy student volunteers were used, eight studies with vulnerable participants and four studies where participants had a pre-existing physical or psychological morbidity. Frattaroli (2006) did not specify the type of participants in the studies analysed. However, she reports that studies using participants with a previous health problem, a history of trauma or where respondents were drawn from the general population reported increased effect sizes. But contrary to predictions, mood, neuroticism, alexithymia and emotional inhibition did not moderate the effect of disclosure. This could be dependent on the particular measure being used in the study, as if subjective well-being is assessed; it is possible that a wide range of personality types would see an improvement in outcome (Frattaroli, 2006). Also some psychological problems may respond better to disclosure interventions than others and the author suggests that this makes it crucial that future research is targeted specifically. It is also worth considering when comparing the reviews and meta-analyses here because inclusion of certain studies may bias the final results.

#### **4.3.6 Reliability and validity of data collection and manipulation**

Mogk et al. (2006) used a coding manual compiled according to Lipsey's (1994) suggestions of outcome types, to assess study variables. The meta-analysis calculated effect sizes on somatic health, psychological health, and miscellaneous. If a study contained more than one disclosure group or more than one control group the effect

sizes were averaged. Thus effect sizes of single studies were usually integrated into one score. Hedges  $g$  (1985) was used as a measure of effect size as this is thought to be preferable in order to offset bias produced by studies with small sample sizes.

Meads, Lyons and Carroll (2003) assessed the RCT qualitatively and by Jadad score as devised by Jadad, Moore and Carroll (1996) this included; method of randomisation given, allocation concealment, blinding, intention to treat analysis, inclusion of a power calculation and presence of a Consort style flow diagram. They found that most RCTs were of poor quality (the median score was zero); this will have affected the validity of results obtained. Most of the RCTs included in the Meads, Lyons and Carroll (2003) review measured multiple outcomes but the different outcomes were combined to obtain standardised mean difference (SMD). Meads, Lyons and Carroll (2003) suggest that by using SMD it is possible to assume that differences in standard deviations between trials reflect differences in measurement scales, rather than real differences in variability between trial populations. However, they highlight that this may not actually be the case with widely differing populations. They acknowledge that the overall treatment effect can be difficult to interpret as it is reported in standard deviation units rather than in the measurement scale used. The authors also state that the studies investigate a very wide range of outcomes making meaningful results harder to obtain.

Frattaroli (2006) used similar methods for coding to Mogk et al. (2006) in that effect sizes were first coded into one of six outcome types: psychological health, physiological functioning, reported health, health behaviours, general functioning and subjective impact of the intervention. All but the last of these categories had been previously used by Frisina et al. (2004) and Smyth (1998), who had also recorded a

positive effect size for expressive writing. Like Mogk et al. (2006), Frattaroli also averaged effect sizes within outcome type and then averaged across outcome type.

#### **4.3.7 Follow up times**

Mogk et al. (2006) suggested that a difference between their study and that of Meads, Lyons and Carroll (2003) was the definition of long term outcome. Meads, Lyons and Carroll (2003) included follow up data assessed at a minimum interval of one week, whereas Mogk et al. (2006) used a minimum of one month. Differing follow up times may account for discrepancies between reviews as when follow up time is increased the effect of the intervention appears to diminish. Meads, Lyons and Carroll (2003) recognised that emotional disclosure will heighten negative mood in the immediate post intervention period but the effect fades over time. Thus, if studies had more than one follow up time, the longest one was used for the analysis. This finding was also discussed by Frattaroli (2006), who concluded that PTSD symptoms may be temporarily increased directly after the intervention but this effect is reversed with increased time after the intervention. The topic has also been explored by Deters and Range (2003), Smyth (1998) and Pennebaker (1993). Smyth (1998) considers that short term distress may be necessary for cognitive change to occur and Foa et al. (1993) suggest that the trauma related fear network may need to be activated before symptom improvement is identified. Frattaroli (2006) also reported that benefits are seen to decline over a longer period of time (months) thus direct comparison between studies where this factor varies are problematic.

Frattaroli (2006) reported that studies with follow up periods of over a month showed reduced effect sizes. However Meads, Lyons and Carroll (2003) and Mogk et

al. (2006) included some primary studies with significantly shorter follow up times and so may have influenced the non-significant effect sizes calculated for the intervention. Sloan, Feinstein and Marx (2009) report that symptom improvement is lost over the longer term, it therefore follows that different follow up times may result in differing conclusions as to effectiveness of the intervention. So it is possible that beneficial effect may be missed in some studies or longevity of effect not fully documented in others depending upon choice of follow up time.

Sloan, Feinstein and Marx (2009) found that depressive symptoms were maximally reduced at the two month follow up, but the improvement was not sustained for subsequent follow up times. The authors were also unable to show benefits to PTSD symptoms at follow up. However it may be possible that different psychological morbidities will show decreased symptoms after differing follow up times and perhaps PTSD requires a shorter follow up time for beneficial effects to be evident.

#### **4.4 Results**

For a table showing all primary studies reviewed please see Appendix i. The following table (4.2) summarises the primary studies which each review had in common.

**Table 4.2 Comparison of primary studies included in each review**

| <b>Studies</b>   | <b>Number of primary studies in common</b> |
|--|--|
| Frattaroli (2006) and Meads, Lyons and Carroll (2003)  | 41   |
| Frattaroli (2006) and Mogk et al. (2003)   | 29   |
| Frattaroli (2006) and Frisina Borad and Lepore (2004)  | 9  |
| Frattaroli (2006), Meads, Lyons and Carroll (2003) and Mogk et al. (2003)                                  | 19   |
| Frattaroli (2006), Meads, Lyons and Carroll (2003), Mogk et al. (2003) and Frisina Borad and Lepore (2004) | 1  |
| Frattaroli (2006), Meads, Lyons and Carroll (2003) and Frisina Borad and Lepore (2004)                     | 6  |

Mogk et al. (2006) and Meads, Lyons and Carroll (2003) examined a large number of studies that were also included by Frattaroli (2006). It is of interest to examine the studies not held in common as the effect sizes reported by those primary studies could contribute to the reported findings.

#### **4.4.1 Meads, Lyons and Carroll (2003)**

A total of sixteen studies were included by Meads, Lyons and Carroll (2003) that were not in the Frattaroli (2006) study. Of these, two were presentations to the American Psychosomatic Society (Meyer et al., 2003; Gillis et al., 2002), four were theses; Barry (2000), Strogg (1998), Hughes (1993) and Czajka (1987) and I was not able to obtain the full articles. Of the remaining ten studies, I have not been able to retrieve data on three, however of the remaining seven only one, O'Neill and Smyth (2002), reported emotional expression to have had no effect on the particular outcome measured (stress symptoms caused by cancer) all others including three by Pennebaker and colleagues (1990; 1988; 1987) reported improved psychological or physical health as a result of emotional expression. However it is worth noting that, just because a positive outcome was reported by the authors of a study, it doesn't

necessary follow that a statistically significant effect size would have resulted and been reported and so a review or meta-analysis would possibly reach similar conclusions to those of Meads, Lyons and Carroll (2003) in that the intervention was not effective.

#### **4.4.2 Mogk et al. (2006)**

Three studies were reviewed by Mogk et al. (2006) that were not in the Frattaroli study; Kroner-Herwig, Linkemann and Morris (2004), Soliday, Garofalo and Rogers (2004) and Booth et al. (1997). Booth, Petrie and Pennebaker (1997) and Soliday, Garofalo and Rogers (2004), did not show positive effect sizes using Hedges  $g$  (Hedges, 1985) and so will have contributed to the overall finding that expressive writing is not a useful intervention. I was not able to independently check the Kroner-Herwig, Linkemann and Morris (2004) study as it was written in German.

Mogk et al. (2006) found no significant effect sizes for expressive writing regarding somatic or psychological health variables apart from health behaviours. In particular the authors found that PTSD symptoms were not decreased after the intervention and concluded that expressive writing has either no or only minor effects on health.

Smyth (1998) reported an effect size of  $d=0.47$  for writing therapy based on a meta-analysis of 13 studies and Frisina, Borod and Lepore (2004) also reported a positive effect size of  $d = 0.19$  after a meta-analysis of nine studies, including participants with a diagnosed physical or psychiatric disorder rather than college students. These effect sizes are in contrast to those calculated by Mogk et al. (2006) ( $g=0.01$ ) for psychological variables, which is not significant. Interestingly when the authors reviewed health behaviour variables a significant effect size of  $g=0.2$  was



found. The authors particularly focussed on PTSD symptoms and found that symptoms of arousal intrusion and avoidance were not affected by the intervention ( $g=-0.1$ ) even when the clinical group had extreme symptomatology.

The Mogk et al. (2006) study contrasts with the findings of Smyth (1998), who found effect sizes of  $d=0.03$  for health behaviours and  $d=0.66$  for psychological wellbeing. Mogk et al. (2006) suggest that bias could have been introduced into the Smyth (1998) study by the low number of included studies (13 as opposed to 30). Interestingly the two studies also shared eight studies in common. Mogk et al. (2006) attribute some of the difference in effect size to the fact that a conservative methodology was used. The authors also discuss the review by Frisina, Borod and Lepore (2004), in which the authors examined nine studies and found a significant effect size of  $d=0.19$ . Frisina, Borod and Lepore (2004) included only studies with clinical populations and also found that the intervention was slightly more significant for physical rather than psychological health variables. However Mogk et al. (2006) only included studies with non-clinical populations, which may warrant further research in that healthy subjects may see less improvement in outcome than those with clinical morbidity (Frattaroli 2006). As far as psychological outcomes are concerned mood, depression and anxiety were reported as separate outcomes in the Meads, Lyons and Carroll (2003) review (since they are all listed separately in the International Classification of Diseases and Related Health Problems) (World Health Organisation, 1992).

The comments of Bornstein (2010) regarding effect sizes are notable. He argues that although statistically an effect size of  $d=0.8$  or  $r=0.075$  for expressive writing could be seen to be modest, it is important to appreciate effect sizes in a

broader context. For example, the effect size is  $r=0.02$  for aspirin on heart attack reduction and  $r=0.08$  for the relationship between smoking and lung cancer. Bornstein (2010) states that the difference between the effect size for expressive writing and the benefits of smoking cessation are not great enough to conclude that the opportunity to write about trauma should be withdrawn from those who may benefit. He also asserts that although the expressive writing effect size is theoretically modest, in practical terms it could be as meaningful as the beneficial health outcome for those who cease smoking.

It emerged that only two of the studies included by Meads, Lyons and Carroll (2003) concerned participants with PTSD. Four RCTs included participants who were under psychological stress and of these, only one study showed a statistically significant result in favour of the intervention (it involved fourteen participants suffering from PTSD). The researchers acknowledged heterogeneity between these studies but still chose to average the results. One could conclude therefore that there is insufficient evidence to claim that emotional expression through writing is not effective in reducing outcomes measures of psychological morbidity.

In addition five RCTs included by Meads, Lyons and Carroll (2003) reported positive mood and at follow up this outcome was increased for all intervention groups compared with controls although this was only in studies where participants were either healthy or had a physiological condition, rather than a psychological one. Eight RCTs reported on anxiety but there was found to be no difference between intervention groups and control for any. This was also the case for the ten studies where depression was measured. Fifteen RCTs used the Impact of Events Scale (IES) (1979) to measure intrusion and avoidance but again no significant effects were found

however in individual studies where volunteers were under psychological distress the results were contradictory.

With other psychological outcomes, authors of five studies reported improved outcomes, one was worse, 20 reported no difference and seven were not reported. It would be useful to examine these in more detail as they are reported as being highly heterogeneous studies. If the methodological details differ there may be a case for applying the methodology of successful studies more widely.

Over all very few primary research studies had used PTSD symptoms as the outcome measure (27% of primary studies in the Frattaroli (2006) meta-analysis used trauma as a selection criterion, 16% in the Meads, Lyons and Carroll (2003) review and 10% in the Mogk et al. (2006) review) and this would suggest that more primary studies are required in this area.

Meads, Lyons and Carroll (2003) comment that there were marked differences in the studies included in their review in terms of the patient groups involved, baseline measurements and duration of follow up. Also lack of allocation concealment may have produced exaggerated effect sizes (up to 30% larger). The authors acknowledge that taking this into consideration overall effect sizes become very difficult to interpret. Also the studies are only as good as the way results are presented. Some authors would have chosen to only report their most positive results and others would have chosen to report a spread of outcomes and these would have contributed to the low effect size calculated by Meads, Lyons and Carroll (2003).

In contrast to Mogk et al. (2006) and Meads, Lyons and Carroll (2003) Frattaroli (2006) found that experimental disclosure was effective in reducing psychological and physiological morbidity. Frattaroli calculated a significant effect size of  $r=0.075$  from

one hundred and forty six primary studies using random effects analysis. Frattaroli (2006) acknowledges that since 1998 many studies using experimental disclosure had taken place, therefore a larger review or meta-analysis was necessary. It is also worth noting that Whitlock et al. (2008) suggest that reviews quickly become outdated and one should consider reviewing new studies in a particular field at least every five years. Given the conflicting results of the reviews under discussion it may well be time for another meta-analysis or review in this area.

#### **4.5 Discussion**

Meads, Lyons and Carroll (2003) discuss the type of meta-analysis that is most appropriate to use with heterogeneous studies. They used a random effects meta-analysis and acknowledged that this, being a conservative form of analysis, gives relatively more weight to smaller studies. This approach was also used by Frattaroli (2006) but her results were contradictory to those of Meads, Lyons and Carroll (2003). Another acknowledged weakness of the Meads, Lyons and Carroll (2003) study was repetition of data extraction only being carried out on one third of the RCTs with an interval of more than six months. This process revealed discrepancies, so it is likely that they will also exist in the other two thirds of the data as well. Meads, Lyons and Carroll (2003) also found that a third of the outcomes measured in studies were not actually reported and so reporting bias may be in operation. Meads, Lyons and Carroll (2003) also suggest it is important to consider the wash out effects in psychological interventions as this may impact upon results.

One of the main remarks made by all the researchers was on the heterogeneity of studies, however by aggregating across wide ranging categories in collection of

statistical data heterogeneity effects will only increase further. Indeed Cook, Sackett and Spitzer (1995) advise that when studies are widely heterogeneous it is better to undertake a qualitative summary of studies rather than attempt meta-analysis as it will be hard to achieve meaningful results.

It seems that in consideration of such factors, Meads, Lyons and Carroll (2003) were tentative in their recommendation that written emotional disclosure is ineffective because the studies included in the meta-analysis were not just heterogeneous but also of poor quality (sample sizes were small, studies lacked power and there was poor quality reporting). However the authors contest that current evidence has not yet demonstrated effectiveness of the intervention either. The report also acknowledged participant feedback which was often positive despite no measureable effect.

In their discussion Mogk et al. (2006) are also less than forthright in their conclusion that written emotional disclosure is ineffective as they acknowledge the positive health benefits found in two studies (Sloan and Marx, 2004; Gidron et al., 2002) where improved outcomes were demonstrated for certain health parameters. They also suggest that instructions given to participants that encourage self-regulatory coping and self-efficacy may contribute towards obtaining a positive outcome (Morris, Linkemann and Kroner-Herwig, 2005; Gidron et al., 2002; Cameron and Nicholls, 1998; L'Abate and Baggett, 1997; L'Abate, 1992).

Frattaroli (2006) found that certain moderators promoted a positive effect size for emotional disclosure. These were listed as; higher doses of disclosure (three or more sessions of at least fifteen minutes duration), specific instructions, disclosing recent unresolved topics, inclusion of participants with trauma related psychological

problems, settings with minimal distractions and privacy, using college students, giving participants information about the study, a follow up period of less than one month and keeping the disclosure private rather than revealing it to the researcher. Thus it is important that those designing primary studies using written emotional expression in the future consider these moderators.

With reference to the setting within which disclosure takes place, Mogk et al. (2006) refer to the use of a structured setting where emotional disclosure is carried out. It may be interesting to explore this variable, since much of Pennebaker's original work (Pennebaker and Beall, 1986) involved college students with no previous pathology sitting in a room at college in order to disclose. Some authors have postulated that conditions and instructions could affect research findings (Sloan, et al., 2007) so it is possible that the setting may also be important. Mogk et al. (2006) also suggest that specific writing instructions may show greater effects on participants and Frattaroli (2006) concludes that positive effect sizes were seen in studies where disclosure takes place in the participants' home.

Frattaroli (2006) acknowledges that results of interventions are also dependent upon individual participant differences such as levels of stress, mood, neuroticism and optimism. Additionally, if participants have a history of trauma they will have more to disclose and potentially more to gain from the intervention. Frattaroli (2006) reported that studies involving higher stress participants showed a greater overall effect size but not for psychological health or subjective impact.

Additionally Harris (2006) conducted another meta-analysis of emotional disclosure and found a small but significant effect size in health care utilisation, albeit only in healthy participants. Mogk et al. (2006) also notes that it is almost impossible

in any study to control for pre-experimental disclosure and this could also affect the results.

#### **4.6 Conclusions and Implications for the Current Study**

Although the authors in all three reviews had selected a large number of primary studies for inclusion, all authors commented on the heterogeneity and poor quality of the studies. It is possible that narrative review rather than meta-analysis is more appropriate in these circumstances (Cook, Sackett and Spitzer, 1995). A minority of studies in each review or meta-analysis used PTSD symptoms as an outcome measure thus more high quality studies of the impact of writing therapy in this area are required. Additionally none of the primary studies reviewed involved a population of postnatal women with PTSD so although two reviews have found the therapy to be ineffective (Meads, Lyons and Carroll, 2003; Mogk et al., 2006) there have still not been enough specific studies in this area to rule it out.

It is also important that researchers use methods which have been used before to facilitate direct comparison between studies and reduce heterogeneity. Future researchers in the field of writing therapy should use methodology which has been shown to promote positive effect sizes. In addition one needs to consider the specific moderators of effect size (Frattaroli, 2006) when deciding upon experimental design. The methodology I used in the current study was therefore based on that reported by Sloan et al. (2007), Frattaroli (2006), Yule et al. (2005) and Pennebaker and Beall (1986), whose studies have all shown positive effect sizes.

In the next chapter I describe the potential predictors of PTSD in postnatal women in detail and discuss the rationale behind the choice of particular tools used in the study.



## **5 Predictors of and Potential Influences on PTSD**

### **5.1 Introduction**

In chapter two I reported on past research that indicated a number of predictors or risk factors for postnatal PTSD. These included low levels of partner support during labour, lack of staff support, patterns of blame, lack of control during labour, previous mental health problems and trait anxiety (Czarnocka and Slade, 2000). Other authors found the following additional predictors; history of sexual trauma, lack of social support, pain in the first stage of labour, expectations, level of medical intervention, self-efficacy, internal locus of control, and coping style (Soet, Brack and Dilorio, 2003). Thus it was important to ascertain the effect of this range of predictors on PTSD on a different cohort of postnatal women, but also to investigate in the feasibility study whether certain predictors moderated the effect of expressive writing on PTSD.

In this chapter I have sought to provide some background to and rationale for the inclusion of the predictors used in this study. Chapter eight provides the results of a comparison between the predictor variables detailed in this chapter and the outcome variables of PTSD as measured by the Post Traumatic Stress Checklist (Weathers et al., 1993) and General and Psychological Health (GHQ-28) (Goldberg and Hillier, 1979). The GHQ-28 was selected in addition to the PTSD measure as an outcome variable in order to determine whether reduced general health was associated with variables such as demographics, birth experience, personality and support.

The predictor variables used in the current study were firstly those which either preceded the birth or were related to early caring; including demographic variables such as planning the pregnancy or perception of difficulties with their baby. These were coded in a simple binary fashion. Also perceptions of maternal confidence (Parker and Zahr, 1985) and relationship with their partner (Hendrick, Dicke and Hendrick, 1998) were assessed. Secondly variables directly related to the birth were included; past PTSD, perception of birth experience (Bailham, Slade and Joseph, 2004) and post-natal depression (PND) (Cox, Holden and Sagovsky, 1987). In addition the following personality measures were used; alexithymia (Bagby, Taylor and Parker, 1994) and general affects since the birth (Watson, Clark and Tellegen, 1988). Finally predictors relating to support were used, including relationship or attachment styles (Hazan and Shaver, 1987), coping styles or self-efficacy (Schwarzer and Jerusalem, 1995) and perception of social support received (Zimet, et al., 1988). The specific tools and their mode of use are described here and I have justified the reasons why these particular predictors were chosen, using evidence from the literature.

As mentioned earlier, past research has shown that a number of personality or relationship factors could affect development of PTSD (Soet, Brack and Dilorio, 2003; Czarnocka and Slade, 2000) however, possible correlations between such a large range of demographic, birth, personality and support variables have not yet been tested on one postnatal population. In the following chapter I explore relevant PTSD literature from a variety of aetiologies in order to determine possible links between the above predictor variables and PTSD symptoms and General and Psychological Health scores following trauma and suggest why the current study was necessary.

## 5.2 General and Psychological Health

It is important to consider the identification of somatic symptoms in those with PTSD and the implications for quality of life. Simon et al. (1999) suggested that it is common for those with psychological distress to present with somatic symptoms. Regarding PTSD in particular (Pacella, Hruska and Delahanty, 2013) found a strong association between PTSD and poor physical health, however of the 62 primary research studies examined, none included women with postnatal PTSD. Pacella, Hruska and Delahanty (2013) suggest that successful treatment of PTSD symptoms could improve physical health but recommend further longitudinal research. Indeed it is not clear in the general population which problem is likely to predict the other. Thus patients could present initially with somatic symptoms but actually have psychological distress, or distressed individuals could present with medically unexplained physical symptoms or other individuals could present with somatic symptoms denying any psychological distress (Simon 1999). Thus by collecting data on general health as well as PTSD any indications of somatic ill health could be captured.

There are conflicting findings regarding coping style and its impact on general health in individuals with PTSD. Chung et al. (2005) found that those using both problem focussed and emotion focused coping strategies were at risk of developing general health problems. This contradicted previous work by Thompson and Soloman (1991) where solely emotion focused coping was implicated. Despite conflict over the actual mechanism previous authors have suggested a link between cognitive suppressive strategies following trauma which suppress depressive emotion and create increased physiological activation that exacerbates psychological symptoms (Hunkin and Chung, 2012; Gross and John, 2003). Thus it was proposed that there would also

be an increase in other psychological symptoms in the current cohort if trauma was experienced, additionally this may be more in evidence in those with either low emotion or those who could not regulate their emotion. The GHQ- 28 (Goldberg and Hillier, 1979) has been used successfully in the past to measure global dysfunction and identify co-morbid psychological ill health associated with PTSD (Raphael, Lundin and Weisaeth, 1989).

Regarding the co-morbidity between PTSD and depressive symptoms, Calhoun et al. (2009) found that although previously co-morbid depressive symptoms had been attributed as causing subsequent general health problems, PTSD alone could be associated with development of poor general health. The long term implications were discussed as women are not only more likely to experience PTSD but also more likely to be chronically affected. Stam (2007) reviewed the various diverse chemical pathways through which PTSD is thought to affect physical health; including cardiovascular hyper-responsiveness, raised levels of peripheral catecholamines, basal HPA axis regulation, changes in thyroid regulation, gastro-intestinal symptoms, alterations in pain sensitivity and immune system abnormalities. The mechanisms for the relationship between PTSD and physical health seem both diverse and complex. There has however, been little research exploring the relationship between PTSD and poor physical health with postnatal women and so this merited the inclusion of a measure for general health in the current study.

The revised General Health Questionnaire (GHQ-28) has been recommended in previous PTSD research as a standardized questionnaire enabling measurement of global dysfunction and the diagnosis of co-morbid psychological disorders associated with PTSD (Raphael et al., 1989). The GHQ-28 is a shortened version of the original

GHQ comprising 28 questions (Goldberg and Hillier 1979) and was administered in the current study. The questionnaire has been used to identify non-psychotic psychiatric disorders such as depressive disorders, panic disorders, phobias and PTSD. Questions within the instrument are divided into four sections A, comprising questions relating to somatic symptoms and not specific to psychological problems, B, questions relating to anxiety and insomnia, C, questions relating to social dysfunction and D, questions relating to severe depression. The scoring method for each question was 0,0,1,1, as suggested by Goldberg and Hillier (1979). The recommended cut off point for a positive result was considered to be seven or more and a score of thirteen or more was used to indicate a positive psychiatric condition. The GHQ measure demonstrated internal reliability as the scores for each subscale for Cronbach's  $\alpha$  were somatic= 0.79, anxiety = 0.91, social= 0.83 and depression= 0.92.

In the current study I used this instrument to confirm findings from the PND and PTSD instruments. In addition the GHQ-28 allows the identification of anxiety symptoms that were not linked to a PTSD diagnosis as well as somatic symptoms, as discussed above. Another advantage of using GHQ-28 alongside a PTSD measure is that this ensures that a wider range of psychological morbidity is detected. Additionally some researchers have suggested that differences in results are seen because the independent variables don't predict the outcome variables (PTSD and general health) equally (Hunkin and Chung, 2012; Raphael, Lundin and Weisaeth, 1989).

### 5.3 Demographic Variables

The following demographic information was recorded for each participant: age, marital status, educational level, income level, ethnicity and parity. Additionally participants were asked whether the pregnancy was planned, if their partner was at the birth and what type of birth they had. Questions related to the postnatal period included ascertaining if the baby had needed to return to the hospital and whether the participant perceived any difficulties regarding the feeding, weight gain or sleeping of their baby. Most of these variables were coded dichotomously however to aid statistical analysis categorical variables such as age; educational level and employment type were converted to dummy variables in order to compare demographic differences. The dummy variables for age were 18-30 and 31-49, for marital status; married and non-married, for education; university and non-university and for occupation manual and clerical were designated as low income and doctor and manager were designated as medium to high income. Demographic variables have been previously assigned conflicting levels of relationship with postnatal PTSD. Thus it was important to include them in the current study in order to confirm or refute previous research. There is conflicting literature regarding the importance of demographic variables. In a review of risk factors for postnatal PTSD Andersen et al. (2012) suggested that post birth infant complications may be a risk factor for PTSD in mothers, this was contested by Grekin and O'Hara (2014) who conducted a meta-analysis of postnatal PTSD predictors and additionally found that marital status and education level were not significantly related to postnatal PTSD. Andersen et al. (2012) reported that age, income level and ethnicity were inconsistently related to PTSD, but parity and planning the pregnancy may have a small impact on PTSD. However, only five studies were available for

analysis and the authors of these drew conflicting conclusions. In studies with Nigerian women, Adewuya et al. (2006, 2007) reported that single women were more at risk for postnatal depression and younger women may be at risk for anxiety disorders, but a study using Western women did not replicate these findings (Sawyer, Ayers and Smith, 2010). Since few studies in the Anderson et al. (2012) review had reported on demographic variables their findings may not be generalisable. Given that these recent reviews have shown conflicting levels of importance for demographic variables it was important to record a wide range of demographic information from participants in the current study to enable identification of potential demographic risk factors for postnatal PTSD. In consideration of past research it was proposed that there may be a relationship between PTSD after birth and age, single status, parity, whether the baby was planned and infant post birth complications.

#### **5.4 Partner Support**

Greenman and Johnson (2012) assert that human relationships, in particular dyadic ones, have a great deal of influence on the way PTSD interacts with affect regulation. They also suggest that a close relationship with someone such as a partner could either protect sufferers from either developing PTSD or help in the recovery process.

Parfitt and Ayers (2014) found that all couples in their study reported some deterioration in the marital relationship after the birth of a baby; however insufficient partner support was reported more often by those with postnatal mental health problems. Given the additional physical and emotional demands associated with caring for a new baby, these findings are unsurprising. Indeed, in a large review of

PTSD and social support Charuvastra and Cloitre (2008) suggest a social support model for prediction and maintenance of PTSD symptoms. Robinaugh et al. (2011) found that negative dyadic interaction was associated with maintenance of PTSD symptoms in research with victims of road traffic accidents. They assessed the dyadic relationship using the Quality of Relationship Inventory (Pierce, Sarason and Sarason, 1991) and found that the cognitive aspect of support was important, for example, if participants thought that their partner was unsupportive, PTSD symptoms were more likely to persist. The authors suggest that it is likely that those who experience negative cognitions about their partner may also think negatively about the world in general, which is why it was important to also use a measure for positive and negative affects in the current study to investigate a possible relationship between negative cognitions and perceived reduced partner support. In postnatal couples Iles, Slade and Spiby (2011) found that less secure attachment patterns and dissatisfaction with partner support were also associated with higher levels of PTSD for both partners. Kramer et al. (2005) suggest that, in couples where one partner had PTSD, their coping resources such as non-verbal support were reduced, thereby affecting the dyadic relationship by promoting a situation where there was less self disclosure, reduced emotion sharing and increased marital violence. However they found that in some cases the non-affected partner started to practice joint dyadic coping in order to compensate. Although beyond the scope of the current study, it would be interesting to investigate this in postnatal couples. Since the research cited above has shown a relationship between dyadic support and the persistence of PTSD symptoms, it was important to confirm or refute these findings for women in this particular cohort. Additionally, I wanted to investigate whether alexithymic tendencies, attachment pattern and



negative affect were more likely in those reporting low levels of dyadic satisfaction. Negative cognitions regarding partner support were also investigated in the qualitative part of the study via semi-structured interviews with women experiencing postnatal PTSD. The Relationship Assessment Scale (Hendrik, Dicke and Hendrick, 1998) was used to enable assessment of either married or unmarried couples. The scale assesses the degree of satisfaction the participant experienced in her relationship with her partner.

The Relationship Assessment Scale (Hendrick, Dicke and Hendrick, 1998) consists of seven questions relating to dyadic relationship. The scores range from 1 (low satisfaction) to 5 (high satisfaction). The scores for each item were totalled. Thus final scores of 21-35 indicated moderate to high relationship satisfaction and scores below 21 indicated moderate to low relationship satisfaction. The reliability for this measure was calculated using Cronbach's  $\alpha$  and was found to be 0.45 and equates to a relatively low level of reliability for this measure in this population. This could be explained by the relatively low number of items in the scale (Field, 2009). However ratings for dyadic relationship were also captured by using the perceived social support and GHQ measures thus the fact that this measure had low reliability may not have had such a great impact on findings as if only this one measure had been used.

## **5.5 Maternal Confidence**

Maternal self-confidence has been defined as the mother's perception of her own ability to take care of her child and correctly interpret the child's signals (Badr 2005). The level of maternal confidence has been shown to be positively associated with maternal adjustment and coping postnatally. Leerkes and Burney (2007)

proposed a model of antenatal efficacy which was moderated by new parents' memories of being parented and any ensuing self esteem, depressive symptoms and previous experience with babies. Additional moderation was posited to occur postnatally by means of parental involvement, perceived infant reactivity and 'soothability' and perceived social support. However the most important predictor of maternal confidence was antenatal efficacy. Given that there may be an association between women's experience of being parented, maternal confidence and attachment this was an important measure to include in the current study. Although a recent study using a cohort of German postnatal women (Reck et al., 2012) showed that previous depressive and anxiety disorders were likely to predict lower levels of maternal confidence, a drawback of the study was the absence of a specific measure for postnatal PTSD. In the current study it was proposed that self report of low maternal confidence would correlate positively with PTSD symptoms. Additionally Reck et al. (2012) found that maternal efficacy was most strongly associated with previous anxiety disorders, so in the current study it was important to explore the impact of past and current PTSD on maternal confidence. Maternal confidence was assessed using the Maternal Confidence Questionnaire developed by Parker and Zahr (1985). The instrument consists of fourteen questions relating to participants ability to perform early infant caring skills. Additionally five questions relate to participants' perceptions about their ability in this area. Each question was scored from 1 to 5 where 1 indicated low confidence and 5 indicated very confident. The scores were totalled. Scores of 14-41 indicated low to moderate levels of maternal confidence while scores of 42-70 indicated moderate to high levels of maternal confidence. Of the fourteen questions question 10 and 12 were reverse scored. The reliability for this

measure was calculated using Cronbach's  $\alpha$  and was found to be 0.74 which equates to a good level of reliability for this measure in this population.

## **5.6 Trauma History/Past PTSD**

Trauma history has been found to be one of the most significant predictors of PTSD in postnatal women (Olde et al. 2006). Boorman et al. (2014) suggest that past trauma is important because it could cause people to view the world as inherently unsafe and thus adversely affect their view of labour. O'Donovan et al. (2014) found that the single most important predictor of postnatal PTSD was past trauma, however it is unclear whether assessment of past trauma was performed pre or post birth in the study and this may have affected the results. None-the-less O'Donovan et al. (2014) advised that given the importance of past trauma midwives should pay particular attention to a woman's history and they recommended the development of a screening questionnaire for women in order to identify those who may be at risk of postnatal PTSD. Although a traumatic experience does not necessarily indicate that an individual will develop PTSD symptoms recent data produced by the World Health Organisation (WHO., 2012) indicates that internationally, 35% of women have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence. Thus one could assume that women as a group may be more likely to have already experienced prior trauma and this could then affect their vulnerability to PTSD symptoms after a traumatic birth. Indeed Lev-Wiesel, Daphna-Tekoah and Hallak (2009) found that in particular the intrusion and arousal clusters of symptoms for PTSD were increased in a group of previously sexually abused women after they had given

birth. Moreover Beck et al. (2011) found that the level of guilt and shame women experienced as a result of past abuse predicted greater PTSD symptom severity. Thus if women had experienced previous intimate trauma, which led to feelings of guilt and shame, it appears that they could be more at risk for postnatal PTSD. This is also pertinent to the findings by Schumm, Briggs-Philips and Hobsfall (2006) suggesting that women are at risk of cumulative PTSD across the lifespan. Thus if past trauma can predict current PTSD and women are more at risk for previous sexual abuse which may result in having experienced PTSD in the past it was important to include a past trauma measure in the current study. In addition I wanted to ascertain the relative predictive power of past trauma in comparison with other variables and compare this with previous research. In a meta-analysis of postnatal PTSD, Grekin and O'Hara (2014) offer a critique of researchers who assume that PTSD occurs as a result of the birth experience alone. They suggest that because PTSD is measured postnatally there is an assumption that it arose then. However trauma experienced as a result of the birth could just compound PTSD that was already present. In consideration of this, in addition to recording past trauma I also employed semi-structured interviews to explore women's past experiences as well as their labour experience in order to ascertain the potential impact of any past trauma. A past trauma questionnaire could have been administered antenatally however, it is possible that women may be feeling sensitive and vulnerable during their pregnancy and if asked about past trauma or trauma related to intimate areas of their lives it is possible that emotional harm may be caused. Kitinger (1992) found that contact with health professions for purposes as unrelated as a dental examination caused women to remember a previous trauma. Thus it may not be ethical to ask women such questions at that time of their lives.

Antenatal anxiety sensitivity has been shown to act as an important vulnerability factor which may affect psychological morbidity after childbirth (Keogh, Ayers and Francis, 2002), thus it was decided to only ask about past traumas once the woman was postnatal. The Weathers et al. PTSD Checklist (1993) was used to ascertain both past and current trauma (the scoring of this questionnaire is reported on page 57 in chapter two). It seems that few authors have previously used this approach with postnatal women. However some researchers (Czarnocka and Slade, 2000) rather than asking directly about past trauma instead asked participants if they had consulted health professionals previously about mental health difficulties. During the planning and data collection phase of the current study I was unable to find any evidence of other authors using a previous trauma questionnaire in the same way as in the current study. However, subsequently O'Donovan et al. (2014) have reported that prior trauma is the single most important predictor of PTSD post childbirth. This will be discussed alongside the current study findings in chapter eleven.

## **5.7 Perception of Labour and Control in Labour**

Both recent and more historical research has implicated obstetric events and distress resulting from them as the most highly predictive risk factors for PTSD (Anderson et al., 2012; Soet, Brack and Dilorio, 2003). Whereas other research indicates that factors such as perceived control in labour are also important (Czarnocka and Slade, 2000). It seems that obstetric severity itself may not be as influential as factors such as perceived control over the process of labour. The perception of control and supportive care from health care professionals has been found to predict postnatal morbidity (Ford and Ayers, 2009). Thus including a measure for perception

of labour could refute or confirm previous research for this variable. However it is important to consider that a woman's appraisal of control during her labour may not solely relate to PTSD symptoms but also to her overall sense of satisfaction about the labour (Knapp, 1996). Knapp suggested that health professionals need to identify how they could help to enhance the perception of control for women and thus improve levels of satisfaction. Despite recommendations for staff to communicate more during labour being made well over a decade ago, Thompson and Miller (2014) found that up to 34% of women in a large Australian territory were not informed or consulted about intrapartum procedures before they were carried out. Although it is not known if the results would be replicated in British maternity services the findings are worrying, as a lack of consultation is unlikely to increase a woman's sense of control over her labour. Additionally Stevens, Hamilton and Wallston (2011) suggest that women's locus of control pertaining to childbirth differs from that related to other health issues because of the existence of an additional externalised control dimension related to non-health professionals uniquely present during labour. They also found that women who chose relatively low intervention settings for their births, such as birth centres and midwives, as opposed to consultant led units had an internalised locus of control rather than an externalised one. Thus it is possible that those who experience greater interventions in childbirth and are more at risk of traumatic experiences would also be those evincing an externalised locus of control, therefore additionally increasing the risk of PTSD. Moreover Ford and Ayers (2009) report that low support from health practitioners is predictive of postnatal PTSD symptoms in women who have a history of trauma. Longer term effects of low support during labour on postnatal PTSD symptoms are also found in women who had more intervention during birth. Thus it

appears that there is a complex interplay between the women's perinatal locus of control, her perceptions about the staff she interacts with during the birth and the likelihood of PTSD as a result of a traumatic birth. Since perception of control in labour has been found to be predictive of PTSD, I used the measure developed by Bailham, Slade and Joseph (2004) (the Perceptions of Labour and Delivery Scale) as it included questions about the perceived levels of fear, pain and support relating to the labour that would indicate the degree of control perceived by the woman about her labour. It also allowed me to determine which of the three subscales were more likely to predict PTSD, especially as previous research from non-childbirth aetiology indicates that if symptoms are predominantly fear based the individual will respond better to recommended therapies such as CBT (Adshead, 2000).

The Perceptions of Labour and Delivery Scale (PLDS) (Bailham, Slade and Joseph, 2004) comprises three subscales the first consists of seven questions relating to perceived levels of staff support (questions 6, 7, 14, 16, 17, 18 and 24), the second comprises four questions about the level of pain during labour (questions 2, 3, 4 and 5) and the third comprises questions relating to the participant's perception of fear for herself and her baby during labour and delivery (questions 8, 9, 10 and 11).

Participants were asked to rate their score on a scale of 1 to 10 where 1 was not at all and 10 was extremely. The support questions were reverse scored thus scores of 35 to 70 indicated a low to moderate perception of staff support and for the pain and fear subscales a score of 20-40 indicated a moderate to high level of fear and pain. There was a high level of internal reliability for this measure; Cronbach's  $\alpha$  was calculated to be 0.8 for the staff support subscale and 0.87 for the pain and fear subscales.

## 5.8 PND

The NICE clinical guideline defines depression as:

*'...a broad and heterogeneous diagnosis. Central to it is depressed mood and/or loss of pleasure in most activities. Severity of the disorder is determined by both the number and severity of symptoms, as well as the degree of functional impairment'* (NICE, 2009).

O'Donnell, Creamer and Pattinson (2004) studied over 300 injury survivors and concluded that in the population investigated PTSD and co-morbid PTSD/depression were undistinguishable. Whereas White et al. (2006) found there was little literature reporting co-morbidity between PND and PTSD possibly this is because at that time PTSD was overlooked by researchers interested in the diagnosis of PND. However O'Donnell, Creamer and Pattinson (2004) suggested that depression may exist as a separate construct in the immediate aftermath of the trauma but not in the longer term. This finding has been confirmed in longitudinal research with war veterans (Ginzberg, EinDor and Soloman, 2010). In a meta-analysis of 57 studies Rytwinski et al. (2013) concur regarding the co-existence of PTSD and major depressive disorder (MDD), but found the rate to be higher in the military as opposed to civilian population. Additionally Dekel et al. (2014) posited that depression and PTSD were both manifestations of traumatic stress and any differences may be due to the severity of the trauma, but they were in fact separate parts of a joint construct. In contrast Post et al. (2011) suggest that PTSD and MDD are two distinct constructs with overlapping distress components. As regards the postnatal situation co-morbidity between PTSD and PND has also been reported (Onoye et al., 2009). Since in the current study measures for PTSD and PND were only completed mostly at four weeks after the birth a longitudinal comparison and thus any confirmation of the existence of



a shared construct was not possible. It appears that women may be at more risk generally than men for co-morbidity of PTSD and PND. Luxton, Skopp and Maguen (2010) found that having experienced combat, women were more likely to experience PTSD and depressive symptoms compared with men and so they suggest that gender accounts for differences in risk. This adds weight to the idea that individuals may have an underlying vulnerability that could trigger psychiatric disorders, however it could also be linked to a tendency to internalise symptoms. They also considered that vulnerability may be present across the lifespan owing to previous trauma such as abuse as discussed previously. This finding is corroborated by Schumm, Briggs-Philips and Hobsfall (2006), who assessed depression and PTSD rates in women after child abuse and rape and found that their incidence was increased cumulatively across the lifespan.

There is debate in the literature regarding risk factors for PTSD and PND. However, Willinck and Cotton (2004) found that a significant risk factor for a diagnosis of PND was perception of care in labour and this has also been shown to be important for subsequent development of PTSD (Czarnocka and Slade, 2000). Further to this Blom et al. (2010) identified perinatal complications as significant risk factors in the subsequent development of PND. Contradictory evidence was presented by Furuta et al. (2014) who suggested that one of the differences between PND and PTSD was that PND can occur without a precipitating event, indeed in their study severe maternal morbidity as a result of the birth was not associated with depression in contrast to the findings of Blom et al. (2010) and Dekel et al. (2014). What is clear though, is that depression is more likely to have a multi factorial aetiology which may relate to events prior to or after the birth and not just the birth. Indeed since other inherent

personality variables such as self-efficacy can be important in the individual's susceptibility to depression (Bandura, 1977) its aetiology is therefore complex.

Gill et al. (2008) found that over half of traumatised urban women had a co-morbidity between PTSD and depression. They suggested that if depression already exists in the individual they are more likely to develop PTSD. However, they also discuss the idea that PTSD mediates depressive development in traumatised individuals. Also it appears that those with co-morbidity seem to experience greater symptom severity for anxiety, depression and PTSD as well as lower global functioning (Post et al., 2011). Whilst it may be beyond the scope of the current study to suggest a mechanism for co-existence of PTSD and PND in traumatised postnatal women, the contradictory nature of the literature cited above merited the inclusion of a measure for PND in order to support or refute previous findings and also to ascertain the level of co-existence of the two in the population of women studied.

The Edinburgh Postnatal Depression Scale (EPDS) (Cox, Holden and Sagovsky, 1987), a well validated measure for postnatal depression, was used in the current study. It is a self report measure consisting of ten questions which determine how the participant has felt over the last week. The questions relate to mood, interest in activities and energy levels. Each question is rated 0-3. A response indicating no postnatal depression is 0 whereas the severe response scores 3. The individual item scores were totalled. Women who scored on item 10 that indicates suicidal intent (especially with a high overall score) was emailed and advised to seek help from their GP or health visitor. A score of 12 or more was regarded as an indication of moderate to severe postnatal depression. The reliability for this measure was calculated using

Cronbach's  $\alpha$  and was found to be 0.84 that equates to an excellent level of reliability for this measure in the current population.

Originally current PND had formed part of the exclusion criteria, however as it emerged that many participants appeared to have co-morbidity between PTSD and PND in order to increase the possible sample size for the study the inclusion criteria were altered to include those with PND.

## **5.9 Alexithymia**

Alexithymic individuals have difficulty identifying and labelling their emotions, they find it hard to distinguish between feelings and bodily sensations, show a reduced imaginative process and exhibit a characteristic externally oriented thinking style (Taylor, Bagby, and Parker, 1997). Alexithymia has been identified as a stable and enduring personality trait (Badura, 2003; Luminet, Bagby and Taylor, 2001). It has a prevalence in the normal population of 10% (women) and 17% (men) (Salminen et al., 1999) and also is strongly associated with depression and psychopathology (Speranza et al., 2005). Alexithymia may also be a potential predictor of PTSD (Declercq, Vanheule and Deheeger, 2010) as it has been found to predict the numbing and hyper-arousal symptoms of PTSD (via the 'difficulty identifying feelings' subscale) but not avoidance or re-experiencing symptoms. Badura (2003) has suggested that actually, alexithymia mirrors the numbing component of the PTSD subscale so exactly that it should be conceptualised as the emotional numbing construct of PTSD, rather than a separate one. Additionally it appears that alexithymia is an important predictor of life time PTSD (Evren et al., 2010). However in a meta-analysis of twelve studies Frewin et

al. (2008) found that there was a higher likelihood of PTSD being associated with alexithymia in combat veterans, as opposed to an alternative PTSD aetiology. They suggested that future research should consider the contribution of alexithymia towards PTSD in terms of gender of the individuals concerned. Indeed the current study could be useful in this respect as research involving combat veterans has primarily concerned male participants and because the current study involved a large sample of women, it allowed any gender associations to be explored. Moreover Zlotnick, Mattia and Zimmerman (2001) suggest that alexithymia is more likely to occur in individuals who have experienced abuse in childhood and who may be experiencing life time PTSD. This may be pertinent to women in the study who were identified as having past PTSD. Thus it is important to consider whether a relationship exists between women with alexithymic tendencies, who would be less likely to emotionally disclose and past trauma, dyadic support, negative affect and general health as well as PTSD. The current study was therefore designed to reveal any correlations between these potential predictors. In a contradictory study Chung, Rudd and Wall (2012) suggest that in asthma patients the severity of asthma symptoms correlated positively with alexithymia because those who found it difficult to express emotion related to asthmatic attacks may actually experience more asthmatic symptoms. However, the degree of alexithymia did not directly correlate with PTSD symptoms. Despite the debate in the literature regarding the appropriateness of considering alexithymia as a separate construct, previous authors have found a high degree of co-morbidity between alexithymia and PTSD. The association between these variables has not yet been investigated in postnatal women and so it was also important to include a measure for alexithymia in the present study. The Toronto Alexithymia Scale (TAS-20)

(Taylor Bagby and Parker, 1997) was used in the current study; it is a self report measure and therefore requires individuals to have some insight into how they feel. However, due to the nature of the alexithymic trait, awareness of feelings may be impaired in alexithymic individuals and this may potentially confound the findings.

The TAS-20 (Bagby, Taylor and Parker, 1994) comprises twenty items however these are divided into three factor scales; the first comprises questions which concern the difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal (F1). Factor 1 questions include 1,3,6,7,9,14 and 19 (reverse coded). The Factor 2 subscale includes questions involving difficulty describing feelings to others (F2). Factor 2 questions are 2, 4 (reverse coded) 11,12,15,17 and 18 (reverse coded). The third subscale consists of questions related to externally-oriented thinking (F3). Factor 3 questions are 5,8,10 (reverse coded) 16 and 20. The reverse scoring for items 4, 5, 10, 18, and 19 means that a rating of 1 is scored as 5; 2 = 4; 3 = 3; 4 = 2; and 5 = 1, according to the instructions of Bagby, Taylor and Parker (1994). If there were missing items imputation was performed using SPSS. After this all twenty items were totalled. The authors advise that TAS-20 scores should be analysed as a continuous variable and this was done in the quantitative phase of the study. However in the case study a cut off score was used. Bagby, Taylor and Parker (1994) recommend that scores of 61 and over should be characterised as alexithymia and scores of 51 and below would indicate non-alexithymic individuals. In terms of reliability the whole scale was reliable (Cronbach's  $\alpha = 0.74$ ) however each subscale demonstrated mixed levels of reliability; Factor one had a Cronbach's  $\alpha$  of 0.74 whereas Factor two had a score of 0.5 and Factor three a score of 0.23. Given

that the scale was used primarily as a whole this was not thought to have affected the findings.

### **5.10 Positive and Negative Affect**

Positive affect has been defined as how enthusiastic, active and alert an individual feels (Watson, Clark and Tellegen, 1988). This is also characterised by a feeling of calmness and serenity when accompanied by low negative affect. In contrast negative affect is characterised by lethargy and sadness and relates to how distressed an individual feels (Watson Clark and Tellegen, 1988). It can include negative mood states such as anger, contempt, disgust, guilt, fear and nervousness (Watson Clark and Tellegen, 1988). In the current study I used the Positive and Negative Affect Scale (PANAS) (Watson Clark and Tellegen, 1988) which enabled the measurement of a set of 20 emotions, consisting of ten positive (e.g. feeling interested, excited, strong) and ten negative emotions (e.g. feeling distressed, upset, guilty). Participants were asked to rate the degree to which they were feeling a particular emotion. Participants were asked to rate their answers from 1-5 where 1 was 'very slightly' or 'not at all' and 5 was 'extremely' or 'very much'. The emotions could be characterised as either positive or negative thus the total scores for each of the two subscales were calculated. A low to moderate score for both subscales ranged between 5 and 12 whereas a moderate to high score was between 13 and 25. A high level of internal reliability was found using Cronbach's  $\alpha$  (0.90 for the positive subscale and 0.91 for the negative subscale).

Research has shown that PTSD sufferers are prone to problems with affect regulation. These include difficulty modulating anger, chronic self-destructive and suicidal behaviours, difficulty modulating sexual involvement, and impulsive and risk-taking behaviours (Herman 1992). However more recent research has shown that the relationship between PTSD (from a range of aetiologies) and emotion, varied depending upon the PTSD symptom under scrutiny (Milanak and Berenbaum, 2009). The researchers used the Watson and Tellegen (1988) self report measure for affect, supplemented with five additional words (frustrated, down, anxious, grouchy and sad) and the Weathers et al. (1993) checklist for PTSD. The original measures used in the Milanak and Berenbaum (2009) study are the same as those used in the current study. This enabled me to determine whether a similar correlation existed in a cohort of postnatal women with PTSD.

Moser et al. (2007) used regression analysis to show that once negative affect had been controlled for, negative cognitions about self predicted symptom severity of PTSD; thus cognitions are important considerations. O'Bryan et al. (2014) found that the greater the difficulties with emotional acceptance and regulation, the greater the negative alteration in mood symptom cluster (thus showing consistency with an avoidance profile). Additionally they found that if an individual has a negative reaction to experiencing negative emotions this enhances their sense of uncontrollability and unpredictability and presumably this would also affect their experience of PTSD. Other research has focussed on the importance of resilience, as positive emotions are important features of trait resilience, which may enable individuals to cope after a traumatic event (Ong et al., 2006). Thus determining the affects experienced by

women in the study and correlating results with PTSD symptom severity will support or refute findings in earlier studies.

Previously I discussed the contradictory literature relating to the co-morbidity of PTSD and depression. Post et al. (2011) posited that PTSD and depression were separate constructs that could emerge as a result of trauma; however their co-occurrence may be due to symptom overlap and affective components. It appears that the main symptom overlap relates to dysphoria and re-experiencing but not to the PTSD symptom clusters around avoidance and hyperarousal. Post et al. (2011) recommended that future work rather than focusing on the overlapping dysphoria symptoms should instead be focused on the differences between the two i.e. fear based symptoms in PTSD and low positive affect in depression. The debate in the literature therefore, warranted the inclusion of a measure assessing positive and negative affect in order to subsequently correlate affect results with PTSD and PND. Thus I was able to report on similarities or differences in a postnatal cohort as opposed to those experiencing co-morbidity of PTSD and depression with an alternative aetiology. In postnatal women Olde et al. (2005) found that low emotion post-birth predicted PTSD. Also Goutaudier et al. (2012) reported that at six weeks after the birth both pain experienced during labour and negative emotions significantly predicted PTSD, and that the intensity of pain and negative emotion predicted the degree of PTSD symptoms experienced. They also found that the effect of negative emotion on PTSD was mediated by the level of pain experienced. In the current study I sought to confirm the findings of this French study in a cohort of British women.



## 5.11 Self-Efficacy and Coping

The psychological construct of self-efficacy was first introduced by Bandura (1977) as part of his social cognitive theory. It could be described as an individual's belief in his or her ability to control the immediate demands of their environment. Individuals with high self-efficacy are thus likely to have a sense of their own competence, which in turn would influence their cognitive abilities, motivation and determination. Moreover high self-efficacy enables individuals to adapt to challenging environmental conditions and to recover quickly if barriers arise in the achievement of their goals (Schwarzer, Mueller and Greenglass, 1999). In contrast those individuals with low self-efficacy may feel helpless or powerless when faced with challenges and so would be more likely to become depressed or anxious (Bandura 1977). It has been postulated that those with high levels of self-efficacy can regulate cognitive and affective processes in order to facilitate coping with the various demands of life (Bandura, 2009).

Past research has shown the importance of self-efficacy beliefs in women approaching labour. Berentson-Shaw, Scott and Jose (2009) suggested that if women had a strong sense of self-efficacy prior to the birth then decreased perception of pain and distress related to the birth were reported, along with increased levels of birth satisfaction. However, high self-efficacy did not affect pain tolerance or obstetric events. It has been widely reported in the literature (Soet, Brack and Dilorio, 2003; Czarnocka and Slade, 2000) that self-efficacy is a predictor of PTSD in postnatal women. Czarnocka and Slade (2000) used a relatively large sample size (264) in their British study. However although they discuss the importance of individual personal vulnerabilities contributing to the development of PTSD they only included measures

for coping and state and trait anxiety. In a smaller U.S. study consisting of mainly primiparous women Soet, Brack and Dilorio (2003) also discussed the impact of psychosocial factors but again used a limited range of measures. In a more recent Swedish study of women who had experienced emergency Caesarean section Tham, Christensson and Ryding (2010) found that a factor related to coping style (sense of coherence) was an important indicator of women's vulnerability to PTSD symptoms. A limitation of this study, as with those cited previously, was the small range of personality tools used. Thus in planning the current study it was important to include a wider range of personality measures, (such as alexithymia and affects) not just self-efficacy, given the likely significance of personal vulnerability to PTSD. Given the relationship reported in the literature it was also important to assess whether a maladaptive coping style was associated with reduced self-efficacy in the context of childbirth. The Self Efficacy Scale (SES) (Schwarzer and Jerusalem, 1995) was used in the current study, it is a well validated measure which has been used to indicate quality of life and predict likely adaptation after life changes. The SES (Schwarzer and Jerusalem, 1995) consists of ten questions relating to participant's perception of their ability to solve problems unaided and the degree to which they rely on others. Participants were asked to rate their responses to various statements and rate them according to how closely they thought it described them. Scores ranged from 1='not true at all' to 4 'exactly true'. Total scores were calculated; moderate to high self efficacy equated to a score between 21 and 40 and low self efficacy equated to a score between 10 and 20. The reliability for this measure was calculated using Cronbach's  $\alpha$  and was found to be 0.91 which equates to an excellent level of reliability for this measure in the current population.

## 5.12 Attachment

Attachment theory was first described by John Bowlby (1969) who suggested that attachment relationships between parents and children can be categorised as either secure or insecure. He posited that if children have consistent reliable empathetic care then they are likely to become securely attached. However if they have felt abandoned or rejected they may become insecurely attached (Marrone, 2014). The attachment hypothesis was further developed by Ainsworth (1978) who used the 'Strange situation' experiment to further define categories of attachment. Thus the following attachment styles are now recognised; secure attachment (category B), insecure avoidant (category A), insecure ambivalent or resistant (category C). Main and Weston (1981) in Marrone (2014) later added disorganised attachment (category D) to this list; the latter relating to children who had experienced abuse or being frightened by their parents.

In terms of adult attachment, Hazan and Shaver (1987) developed a measure that identified secure attachment in adults with responses indicating acceptability of emotional closeness and confidence in the intentions of others. The avoidant attachment style was indicated by a preference for emotional distance and doubts about the intentions of others and the anxious ambivalent style was indicated by a desire for intimacy coupled with doubts about the responses of others. Fletcher and Clark (2002) state that Bowlby's work implies that an individual's attachment style could not only determine their usual inner and social responses, but also influence the way they attempt to regulate stresses resulting from either acute or chronic trauma.

Securely attached individuals may exhibit resilience when stressed, however those with insecure attachment patterns may be at risk for poor mental health (Brennan and Shaver, 1995). Mikulincer and Orbach (1995) demonstrated that when processing negative emotional memories, anxious ambivalent individuals triggered anxiety emotions; however avoidant individuals repressed the thoughts but still became anxious.

In the current study I used Griffin and Bartholemew's (1994) attachment measure that postulates a working model of 'self' and 'other' based on the four attachment styles. The Relationship Scales Questionnaire (RSQ) (Griffin and Bartholemew, 1994) was used to assess the attachment pattern of the women. The RSQ (Griffin and Bartholemew, 1994) consists of 30 questions relating to the adult attachment relationship. Five questions relate to the secure scale of attachment, four to the fearful or avoidant scale, four to the preoccupied or anxious scale and five to the dismissing or avoidant scale. Participants were asked to rate the extent that they believed the statements characterised their feelings about close relationships. Women were asked to rate using a five point scale where 1= 'not at all like me' to 5= 'very much like me'. Questions 6, 9 and 28 were reverse scored. An average was calculated for each subscale, the maximum score for each subscale was 20-25. Each subscale did not demonstrate the same level of reliability using Cronbach's  $\alpha$ , the fearful subscale was 0.81 and the dismissing subscale was 0.62, however the score for secure (Cronbach's  $\alpha = 0.35$ ) and preoccupied attachment (Cronbach's  $\alpha = 0.20$ ) showed lower internal reliability. Field (2009) cautions against assuming that reliability scores of 0.7 and above are more desirable than scores of 0.2, since lower scores may be obtained

when scales have relatively low numbers of items. It is also possible that reversed items affected the reliability rating.

I decided to use the RSQ self report measure because postnatal women will essentially be reporting on their perception of themselves and their relationship with their main adult partner. A clear picture would then emerge regarding women's responses to avoiding or seeking out close relationships with others and whether this predicted PTSD after birth. Four attachment dimensions can be calculated; fearful this is where an individual has a negative view of self and others (high anxiety and high avoidance), dismissing where an individual has a positive view of self but a negative view of others (low anxiety and high avoidance), preoccupied where an individual has a negative view of self but a positive view of others (high anxiety and low avoidance) and finally a secure dimension where an individual has a positive view of self and others (low anxiety and low avoidance).

The attachment style adopted by an individual predicts their coping style and so coping style cannot be discussed separately from attachment theory. Collins (1993) cited in Fletcher and Clark (2002) suggested that securely attached individuals use problem focussed and interpersonal coping strategies, avoidant individuals use distancing strategies and anxious ambivalent individuals use rumination and emotion focused strategies. However, only the first category of strategies would have long term beneficial effects on mental health.

In research specifically with new mothers Mikulincer and Florian (2002) concur that securely attached women used problem focused coping strategies and sought support when dealing with stressors, while women who were anxious-ambivalent relied on emotion-focused coping and avoidant women relied on distancing coping

strategies. Ayers et al. (2014) suggest that PTSD symptoms following traumatic birth can be linked to an avoidant attachment style and specifically that avoidant women were more at risk of PTSD. A drawback of the study was its small sample size, and by using a larger sample in the current study I aimed to confirm or refute these findings.

Moreover attachment also has links to emotional regulation. Bartholemew and Horowitz (1991) suggested that individuals use their attachment style to regulate their affective state. Also problems with emotional regulation (for example, as displayed by alexithymic individuals) are thought to mediate the association between anxious avoidant attachment style and psychological distress and perceived social support (Mallinckrodt and Wei, 2005). Therefore in the current study I wanted to ascertain whether a range of linked predictors such as the degree of social support, self-efficacy and alexithymia or affect regulation moderated the interaction between attachment style and severity of PTSD symptomatology.

### **5.13 Perceived Social Support**

Social Support has been defined as an exchange of resources between a provider and recipient that is perceived as enhancing the recipient's well being (Zimet et al., 1988). Zimet et al. (1988) presented the main debate concerning the action of social support on those experiencing stress. The debate centres on whether social support is beneficial because of its direct effects or because of buffering effects, which help to protect someone from the sequelae resulting from stress. In the former hypothesis supporters may help to change the stressful situation whereas in the latter their empathy could provide a mechanism that enhances self esteem and a sense of

control in the stressed individual. In reality it is likely that both aspects work together to improve wellbeing.

Zimet et al. (1988) developed the Multidimensional Scale of Perceived Social Support (MSPSS) that measures perceived levels of social support from family, friends or a significant other. This measure was used in the current study. The MSPSS (Zimet et al., 1988) is a twelve question measure with three subscales. The first subscale comprises four questions relating to family support, the second contains four questions about support from friends and the questions in the third subscale relate to a significant other. Participants were asked to rate their agreement with statements on a scale of 1 to 7 where 1 represented strongly disagree to 7 that represented strongly agree. Sub score calculations were used in the quantitative phase and the case study where for each subscale a score between 7 and 14 indicated a low to moderate perceived level of social support and scores of 15-28 indicated moderate to high perceived social support. Subscale reliability was of a high level when calculated using Cronbach's  $\alpha$  as the scores were 0.92 for the family subscale, 0.88 for the friends subscale and 0.87 for the significant other subscale.

Zimet et al. (1988) contend that it is more important to measure perceived social support rather than use an 'objective' assessment because it predicts psychological status more accurately. Tolsdorf (1976) introduced an additional dimension in the area of social support. He suggested that those with a patho-psychological profile developed an abnormal social support network. Indeed it is likely that prior experiences such as early victimisation or abuse may result in a stronger association between PTSD and a negative network orientation. This can be explained using attachment theory (Bowlby 1969), since those who had previously experienced

abuse may be wary of seeking social support especially as the abuse may have resulted in disorganised attachment patterns, which would reduce reliance on and confidence about social support.

Brewin, Andrews and Valentine (2000) identified social support as one of the post trauma risk factors for maintenance of adult PTSD symptoms, but all effect sizes reported in the meta-analysis were modest. However, risk factors that occurred during and post trauma appeared to have larger effect sizes than those that pre-existed. Additionally, in a meta-analysis of over 2,000 studies Ozer, Best and Lipsey (2003) found that the level of social support was one of the main predictors of adult PTSD. In terms of PTSD following birth a small study by Lyons (1998) also suggested an association between low levels of perceived support and higher PTSD scores. Moreover, research by Schumm, Briggs-Phillips and Hobfall (2006) showed that social support protected against PTSD symptom severity in adult victims of sexual abuse who had been abused as children and Ullman and Filipas (2001) found that psychological distress increased if social support was unavailable.

Charuvastra and Cloitre (2008) conducted a large review of PTSD and social support and proposed a social support model for PTSD. They suggested that levels of social support not only predict the likelihood of PTSD but also can act as a risk factor for subsequent development of PTSD following trauma. The authors hypothesise that because the subjective experience causing PTSD is important, if it is appraised by the individual as having a human cause then; PTSD is more likely to ensue following trauma. They propose that trauma resulting from human interaction results in increased levels of fear being associated with the PTSD symptoms. Charuvastra and Cloitre (2008) suggest that in such cases social support becomes an important factor



because of the importance of social bonds in promoting a sense of safety which would attenuate fear. Ford, Ayers and Bradley (2010) concur and proposed a cognitive model to predict PTSD in postnatal women that was moderated by the presence or absence of social support. Indeed Ford Ayers and Bradley recommend that early postnatal support could help to reduce longer term PTSD in postnatal women. However, this would appear to contradict research by Clapp and Beck (2009), who suggest that the trauma could change an individual's perception of support thus resulting in the development of a negative appraisal of support networks and a reduced desire to access them. Therefore, I wanted to assess any relationship between the three dimensions of birth experience (pain, fear and labour support), their relationship with subsequent PTSD and any interaction with perceived social support. Given that Charuvastra and Cloitre's (2008) model suggests that social support attenuates fear I wanted to ascertain which of the dimensions was more significantly correlated with PTSD and whether this was moderated by social support. However, by additionally obtaining qualitative data, via interviews, with women who had postnatal PTSD, it was possible to explore individual perceptions about and appraisals of social support in the postnatal context.

## **5.14 Conclusion**

In this chapter I have discussed the past research relating to potential predictors of postnatal PTSD. This has contributed to my rationale for their inclusion in the current study. I have also detailed the tools used to collect the quantitative data. In the next chapter I present my methodological stance and the methods used for the empirical phases of the study.

## **6 Methodology**

### **6.1 Introduction**

In this chapter I describe and justify the epistemological and ontological paradigms on which my research is based. I recount my journey from maternity practitioner with an awareness of the mental health needs of postnatal women, to academic researcher setting out via a Positivist route and continuing via Pragmatism. The basis of the research though, stemmed from the centrality of the voices of postnatal women and the importance of highlighting these voices within maternity services.

I describe a quantitative study which was designed with two main objectives: firstly to assess a range of predictors on postnatal PTSD and secondly to ascertain the efficacy of a writing intervention on PTSD symptomatology (the feasibility study). The qualitative phase involved an exploration of how the writing experience affected women's sense of self. Subsequently few women participated in the feasibility study so I re-focused the study. This challenged my positivist standpoint as it required a revised emphasis on the nature of the whole study. In seeking to explore qualitatively the lived experience of postnatal PTSD and why the intervention was unsuitable for the particular cohort studied, I was also re-orienting my emphasis away from a positivist underpinning towards an interpretivist one which was driven by pragmatism. I also describe the study design including recruitment, choice of questionnaires, choice of intervention and the procedures used to analyse the quantitative and qualitative data obtained.

## **6.2 Background**

### **6.2.1 Philosophy of research and the spectrum of methods**

Before discussing the background to my research it is important to appreciate that there are many philosophical ideas with which researchers have historically engaged when seeking to describe, define and investigate the world around them. Alvesson (2002) stresses that researchers should reflect upon their own philosophical standpoint when engaging in research as this will affect all aspects of the process. A large degree of reflection and reflexivity is required of the researcher in attempting to integrate research philosophy into practice. As a postmodernist Alvesson (2002) refers to this as 'reflexive pragmatism' (page 15)

I set out influenced by the positivist research paradigm in that I formulated an hypothesis framed by deductive methodology (Kumar, 2011). Positivism is defined by the importance of testing hypotheses, objectivity, and the use of natural science methods (Bryman, 2001). Positivism is underpinned by Aristotelian logic and subsequently, rationalist philosophers have used the rules of logic and deduction in order to explain phenomena in the natural sciences (Feibleman, 1986).

### **6.2.2 Positivist methodology**

Positivist methodology has historically been suited to quantitative research in psychology because the aim is to provide support for or to refute an existing theory. The hypothesis derived from the theory is subsequently tested by the information retrieved through data collection (Kumar, 2011). This approach is pertinent to the quantitative phase of the study and the methods by which the dependent variable data were collected. Thus to some extent a positivist paradigm was retained for

assessment of the predictors of postnatal PTSD. The approach was also pertinent to the planned randomised controlled trial of writing therapy on postnatal PTSD (feasibility study). However, once the results of the feasibility study showed that women were not using the writing therapy intervention I realised that it was necessary to understand the lived experience of PTSD and explore why writing had not been taken up. I now felt that a positivist stance was less appropriate as I was interested in exploring and building knowledge with women about their experiences. Thus I re-oriented towards a more interpretivist perspective that incorporated a pragmatic stance which had underpinned my original aim of seeking to practically help women with PTSD.

Newton et al. (2011) discuss the awareness of the impact of the researcher's own values and beliefs and how these impinge upon or are influenced by the research process and highlight the fact that reflexivity could enhance the research process. This accords with Meyrick (2006), who encourages researchers to be responsive to their data and potentially re-focus during the research process. Newton et al. (2011) also discuss the need for researchers to relinquish their reliance on the positivist paradigm and instead reflexively examine their original research intentions. Willig (2001) goes even further by suggesting that reflexivity is not only personal but also epistemological in that researchers need to ask themselves whether their assumptions, which led to the choice of research design, limit or even construct the findings (Willig 2001).

### **6.2.3 Interpretivist methodology**

Post-positivists believe that a deductive model may constrain social research. Particularly in qualitative studies researchers may not have a preconceived hypothesis

and may want to build a theory from the data (induction) (Chamaz, 2004) or may be interested in exploring meaning and constructions that individuals make (Bryman, 2001). In terms of the current study I originally wanted to explore meaning relating to use of the intervention and subsequently the lived experience of postnatal PTSD so this approach was more suitable. May (2011) suggests that even if within the social sciences, phenomena are perceived from different perspectives and data are obtained or analysed in different ways, the central tenet of explaining the phenomena under investigation is still retained. He also suggests that individuals engage in the process of interpretation constantly and so any meaning that they attach to the social world is in constant flux. This again was pertinent to the current study in that birthing women are at a point in their lives where they may be re-assessing their role and so an interpretivist approach would be more likely to capture this process. Additionally social researchers may overlook the inherent complications, conditions, decisions and contradictions of our social selves in the quest for objectivity (May, 2011). I was concerned that an over-reliance on a constructivist approach where the focus would be on knowledge obtained from just a few women may not fully represent a wider population (Prior, 2003). Pragmatists however, suggest that it is possible for knowledge to be regarded as 'good' if it can be used to solve problems in the real world (Cornish and Gillespie, 2009). Rorty (1999) has also argued that a pragmatist should focus on whether knowledge serves a particular purpose rather than questioning its existence. Pragmatists attest that choice of methodological approach has come to overshadow the needs of practitioners (Meyrick, 2006). Given that my original research interest had been in improving treatment options for women with postnatal PTSD I felt that pragmatism as a theoretical stance was consistent with the

sequential use of quantitative and qualitative methods and meant that I was less constrained by paradigmatic choice than if I had upheld a purist approach (Onwuegbuzie and Leech, 2005). This was especially pertinent to my desire for the research to practically inform maternity services of the needs of postnatal women with PTSD. Bryman (2006) discusses the increased emphasis that a pragmatic approach places on answering the research question by means of the most suitable method rather than overly focusing on the underlying paradigm. Indeed Johnstone (2004) argues that researchers should adopt multiple positions suggesting that inductive and deductive reasoning can be complementary within one study.

### **6.3 Quantitative Phase (Incorporating Feasibility Study)**

The quantitative phase including the feasibility study was set up as a randomised controlled trial (RCT) and the initial decision to use one was influenced by the strong positivist paradigm underlying much research in health care where there is a focus on evidence based medicine. This is based on the Bandolier system that provides guidelines for health professionals in interpreting and applying information from research (Centre for Evidence Based Medicine, 2011, electronic source). The authors of the guidelines for reviews cite five types of evidence obtained from research; the best and most reliable being type one, which includes reviews where at least one randomised controlled trial and a summary of all included studies has been used. If research is to be robust and influence clinical practice it is important to distinguish good evidence from poor and to obtain accurate, reliable results (Centre for Evidence Based Medicine, 2011, electronic source). I therefore originally concluded that by conducting an RCT I would be more likely to obtain unbiased, repeatable

statistical data that would be most likely to enable me to assess the feasibility of using writing therapy as an effective intervention in the treatment of postnatal PTSD (Centre for Evidence Based Medicine, 2011, electronic source). However Cornish and Gillespie (2009) writing in defence of a pragmatist approach in health research critique an over reliance on the RCT. They argue that although statistical data can be obtained from an RCT, which determines the efficacy of a particular treatment, the method may not help service users to make sense of their illness. Thus, in using this method alone, the researcher is unable to explore skills and strategies which patients use to help them deal with their particular health issue. For this reason my original design needed to incorporate a quantitative and a qualitative phase, the latter being used to ascertain the views of women who participated in the intervention.

Randomised controlled trials are structured to include the following important elements; random allocation of participants to intervention and control groups, blinding of participants and researchers as to the identity of the intervention group and identical treatment of all groups in every respect excepting the treatment to be tested. Additionally, data derived from participants are analysed within their allocated group, irrespective of whether they received the intervention, and the analysis is based on identifying the difference in outcomes between control and intervention groups which is usually set out at the start (Sibbald and Roland 1998).

Positivists would assert that randomised controlled trials are the best way of ascertaining whether outcomes are related directly to the intervention under investigation and not other related factors (Sibbald and Roland, 1998). It is likely that differences due to chance will still occur but these can be minimised by allocating a large number of people to the intervention groups. Odgaard-Jensen et al. (2011) in a

recent review of randomisation suggested that although random allocation is inherently unpredictable, it is still preferable to the biases that may occur in non-randomised studies. A RCT also uses double blinding which ensures that bias relating to preconceptions about the intervention (on behalf of participant or researcher) is eradicated and will not affect the outcomes (Moher et al., 2010). Furthermore the intention to treat analysis ensures random allocation even when participants withdraw from the study (Sibbald and Roland, 1998).

Although highly recommended by the Centre for Evidence Based Medicine (Centre for Evidence Based Medicine, 2011) as the best means of obtaining robust results there are additional disadvantages of an RCT that are worth consideration. If therapies or interventions are relatively novel in their particular field it may be difficult to evaluate the effect of the intervention as there would not be enough data available to provide evidence of efficacy (Colditz, Miller and Mosteller, 1989). Also it would be more difficult to obtain academic interest or sufficient funding to embark upon a study if there was already limited evidence that the intervention was successful or useful. Cornish and Gillespie (2009) contend that RCTs are unable to show the processes through which an outcome is obtained. Additionally, RCTs often require large numbers of participants to be statistically significant and this may be a limiting factor (Moher et al., 2010) as was found to be the case in the current study. The total number of women in the current study who chose to write across intervention and control groups was seven, certainly not enough to justify a quantitative comparison between the writing groups. The results from one woman who participated in the intervention and who agreed to be interviewed, formed the basis for an in depth case study (see chapter ten).



I was originally interested in determining the combined effects of the independent variables such as demographic information, perceptions of competence in looking after the baby, relationship with partner, trauma history, perception of the birth, postnatal depression, alexithymia, general affects, coping styles, attachment styles and the level of social support received on the dependent variables; PTSD and general and psychological health. This was necessary in order to ascertain whether particular variables were more likely to predict postnatal PTSD and to assess whether certain psychological variables impacted women's ability to write about their birth. Although I was unable to obtain meaningful quantitative results regarding efficacy of writing therapy, I was able to elicit a large amount of quantitative data from the participants' responses to initial questionnaires regarding the effects of independent variables on PTSD and general and psychological health. These data were explored using correlation and hierarchical multiple regression to examine associations between the variables. In addition mediation analysis was conducted for the most significant variables to determine the main interactions of potential predictors of PTSD in postnatal women.

I originally chose to use a mixed factorial design for the feasibility study, this was influenced by the fact that I wanted to explore the intervention as thoroughly as possible. In planning the original design, because the intervention comprised three variations of writing therapy, I needed to recognise that a possible interaction between variables could occur. Although a small number of women participated in the writing therapy, the majority were lost to follow up and so although planned, the results of the study could not be reported.

## 6.4 Rationale behind Selection of Qualitative Methods

Quantitative methods enable researchers to explore the magnitude of an effect and qualitative methods can be applied to areas of research where textual rather than numerical data is analysed, enabling the researcher to draw out themes or meaning (Schwandt, 2001). However qualitative research allows conceptualization of the subject being investigated, promotion of critical reflexivity and an appreciation of context, consequences and outcomes (Wertz et al., 2011). By using qualitative methods researchers may also be able to relate even a single case study to a wider context (Stake, 1995) and by using both quantitative and qualitative methods researchers can often gain a more detailed and complete view of their subject matter (Wertz et al., 2011).

Before deciding upon a qualitative method it was necessary to explore the epistemology underlying the qualitative part of the study and also my own beliefs about the nature of research. Constructivism is an ontological position where the nature of reality is thought to be produced through the actions of individuals in society; as such it is dynamic and also dependent upon the researcher's own cultural understanding (Bryman, 2001). A disadvantage of constructivist methodologies is that if they are considered from a positivist perspective they could be regarded as less rigorous. However, Reissman (2008) argues that factual verification in narrative research (for example) is often less important than an understanding of the meaning gained for the narrators. In addition Corbin and Strauss (1996) assert that even though constructivist researchers create their own interpretations of findings this makes them no less relevant, also they suggest that common constructions emerge through discourse and thus lead to shared understandings. In 2002 Gilgun criticised the

National Institute of Health in America for a lack of consideration of subjectivist, feminist, emancipatory, interpretivist, phenomenological and constructivist perspectives, despite the fact that these approaches have been the basis of much of the social research in the last few decades. Wertz et al. (2011) acknowledge that qualitative researchers who work with stories should not necessarily think in terms of a set of techniques that constitute a method but rather a creative approach that presents constructed findings, (offering little in the way of certitude). This argument was pertinent to my research in that each woman interviewed presented a reality of herself constructed at that time and related to her personal situation and her cultural context. However, the results were mediated by how the questions were framed, the relationship between the participant and the researcher and also by my particular interpretation of her story. However, an advantage of using triangulation of methods is that data obtained via quantitative methods can be used to corroborate (or refute) qualitative findings.

There are many qualitative methods based on different philosophical and epistemological approaches. These include interpretive phenomenological analysis (IPA) (Smith, 1996), grounded theory (Glaser and Strauss, 1967), discourse analysis (Potter and Wetherell, 1987) and narrative research (Sarbin, 1986).

There are several reasons why I chose narrative analysis over other qualitative methods. Firstly the women involved in the study were from a range of backgrounds and probably had significantly different life experiences, united only by the recent birth of a baby. Thus it was useful to employ a qualitative approach which allowed appreciation of the wide spectrum of content and context of their stories (Andrews, Squire and Tamboukou, 2008). Given that I intended to ask the women to search for

meaning resulting from their experiences, it was important to regard each story holistically and relate this to their life as a woman in a particular culture at a particular point in history. This has previously been identified by Josselson (2011) who suggested that the construction of a story cannot be isolated from the historical and cultural context in which it was told and thus will reflect both the internal and external world of the narrator.

One of my original aims was to explore any meaning subsequently made by the women who developed PTSD as a result of the birth experience. Post traumatic stress disorder is a psychological disorder which will only affect some women; that is two women who have experienced very similar births will not always both go on to develop PTSD and it is not necessarily directly related to a birth with increased levels of intervention (Soet, Brack and Dilorio, 2003). Thus the experience of succumbing to PTSD is highly subjective, as is the degree of meaning which could result from thinking about the experience. Epistemologically it is unclear whether when recounting experiences and feelings surrounding PTSD that a truth will emerge from all women interviewed unifying the complex process that different women have gone through during the experience and when recovering from it; as their experiences will be unique to them (Josselson, 2011). Previous research suggests that people will often recount their story with many different 'voices' for example partner, mother, daughter, victim, protagonist, author (Josselson, 2011) so it will not always be clear to the researcher which 'voice' dominates the narrative. However, by using narrative analysis I will be more likely to capture the 'voices' which women use.

I have chosen a narrative approach partly because Josselson (2011) suggests that in narrative analysis one is able to apply a cyclic method starting with an overall

sense of meaning. This is then modified by repeated readings of the interview whilst identifying the various 'voices' of self which become apparent. Themes derived from this can then inform the original picture. This process is derived from Schleiermacher's (1768-1834) suggestion of the hermeneutic circle in which the parts of a narrative are understood by looking at the whole which are at the same time creating the whole (Wertz et al., 2011 ).

Furthermore Squire (2008) highlights the fact that modern narrative researchers, unlike Labov (1972), who was mainly concerned with the linguistic analysis of narrative accounts, prefer to add interpretation and hermeneutics. She suggests researchers should describe each interview thematically and then derive theories and test them moving back and forth through the stories (top down and bottom up interpretive procedures) similar to thematic content analysis. An additional aspect of analysis for narrative research though, is the attention paid to the sequencing and progression of themes within the interview, as well as the transformation and resolution of the themes.

It is possible that there could be a disparity between the 'factual' record of the events surrounding the experience and the perceived reality for the woman. Any qualitative analysis employed should ideally be capable of decoding hidden meanings and discovering meanings that both unify and segment the story (Hollway and Jefferson, 2012). Additionally Charmaz (2004) contests that when we search for meaning and understanding about events experienced by participants in qualitative research we should take care to see the events from the perspective of the participant rather than from our own philosophical standpoint. However, in reality most researchers cannot avoid the subconscious influence of their own underlying belief

systems. In order to explore my own beliefs over time I engaged in bracketing interviews (with one of my supervisors) before and after the qualitative part of the study and was aware of the need for reflexivity whilst conducting interviews and interpreting data (Ahearn, 1999). Charmaz (2004) argues that as researchers we should seek to be as accurate as possible so that we collect a full range of data pertaining to the phenomenon under scrutiny; however the collection or coding of data alone can be problematic when one considers the possibility that different researchers may have different fields of expertise and could be sensitive to different parts of the participant's story. None-the-less, all stories are representations and Reissman (1993) discusses the idea that there is actually no firm distinction between fact and interpretation in post-positivist research. Additionally, stability over time is not guaranteed as Andrews, Squire and Tamboukou (2008) assert that meaning changes not only according to the individual beholder (or researcher), but also because the beholder is never static (in time). A confounding factor worth consideration for participants in this study is also the possibility that severe trauma could produce gaps in the memory thus causing stories to change over time as missing pieces are gradually retrieved (Herman, 1992).

Reissman (1993) cautions the narrative investigator against making too many generalisations across cases because narrative research relies so heavily on an interpretive perspective in contrast to other qualitative methods, which have a more realist epistemology. Thus, as a narrative researcher, whilst being conscious of the richness resulting from narrative enquiry, I needed to be aware of the limitations of the method when seeking to generalise across cases. At the same time I was

conscious that as a pragmatist my primary consideration was improving outcomes for women with postnatal PTSD.

By using a narrative approach with women who had experienced a traumatic birth my stance as a pragmatist was upheld. Frank (2000) attests that when people tell their story they engage in re-moralization, meaning that the action of constructing the story can recuperate people, their relationships and even communities so linking to an essentially pragmatic approach. McHugh (1999) discusses the finding that women could be viewed as voiceless when subjected to the external and largely male dominated hospital environment, however midwives are encouraged to listen to women's stories and incorporate insights from them into practice. I feel that it is important that the stories I have explored do not stay on the page but are able to impact upon those working in maternity services.

My choice of a narrative method was partly influenced by the traumatic nature of the stories related by women surrounding their childbirth experience. Many authors have acknowledged the importance of narrative for individuals to subsequently make sense of their experiences (Reissman, 1993; Bruner, 1990). Thus, it is essential that researchers' respect the ways in which meaning is constructed (Reissman, 1993). Bruner (1990) suggested that meaning occurs when linkages are made for individuals between aspects of their lived experience. However, the narrative researcher makes linkages between the meaning made by the story teller and subsequent analysis, thus potentially creating layers of meaning. If, during the process of constructing and delivering a narrative, women are able to unintentionally make sense of the recounted experience they may also find that through this they will also discover what they want to say as a way of defining themselves (Grey, 1993).

#### **6.4.1 Background to narrative analysis**

Narrative study first emerged in the early part of the twentieth century and became associated with the Chicago School of Sociology, where researchers used narrative accounts from a variety of social groups to describe cultures and lives (Reissman, 1993). In the field of psychology, Theodore Sarbin (1986) was the first to describe the term 'narrative psychology'. Although Bruner (1990) was also a key proponent of the idea of narratives as being a way of not only describing lived time but also making meaning. Sarbin (1986) suggested that people live and understand their lives as part of a story which has a beginning middle and end; as such stories often interweave with those of others and are rooted within a culture or society, but by using narrative people are able to structure and understand their lives (Josselson, 2011). Hall (2011) describes three levels to a narrative these include the fabula, story and text. The fabula consists of events which are revealed during the course of the narrative, the story consists of the plot and the way in which events are revealed or evaluated by the narrator, and the text is the written evidence of the narrative. Spence (2011) suggests that we should focus on the narrative (the author's account of their experience) rather than the historical truth and this has largely become the accepted approach in narrative research. This is particularly pertinent to women's stories about their birth as their memory of events and what is recorded officially in their notes may not always be in accord. Narrative researchers may come from various traditions such as symbolic interactionism, feminism or psychoanalysis, but irrespective of origin all involve the analysis of stories about lived events from which an understanding of social science can be derived (Josselson, 2011)



Narrative analysis is concerned with how a narrator interprets their own story and subsequently how the researcher interprets the interpretations (Bruner, 1990). Narrative approaches are also capable of examining social context through the story (Rosenwald and Ochberg, 1992) and this was important in the current study as each woman lived in her own particular context, but was also part of a larger context relating to becoming a mother. Bruner (1990) suggests that one of the main ways that people make sense of particular life events or traumatic experiences is when they place the events in story form. This then would make narrative analysis particularly suitable for the current study. Additionally birth and becoming a mother can fundamentally affect the mindset of a woman (Stern and Bruscheiler- Stern, 1998). Indeed Miller (2000) asserts that narrative approaches are ideally suited to childbirth related research because of the strong pre-existing traditional social narrative around the transition to motherhood. Stern and Bruscheiler- Stern (1998) describe the motherhood mind-set as determining the thoughts, hopes, fears, fantasies, feelings and actions of a woman. It can also influence the senses and neural processing. Preferences and pleasures may be redirected and values and relationships can be re-evaluated enabling women to redefine their role in the wider family. Thus by encouraging women to tell stories about their birth experience, its impact on them and how they felt about being asked to write about their experience, it was possible to see how they were constructing an ongoing identity (Andrews, Squire and Tamboukou, 2008). Miller (2000) concurs that a narrative re-telling is a way that individuals can incorporate a new perception of themselves. She also suggests that researchers using explorative narrative are able to reveal interpersonal construction within the stories people tell. This aspect relates well to this study as women's birth stories are not told

in isolation; the events in their narrative are often dependent on the action of others. It seems surprising then that in a review of midwifery publications that identified study design, Carolan (2006) found that only 0.19% of all articles related to women's stories of their birth experiences. She suggests that journal editors may bias article selection towards a positivist approach. Since this is an important area that is under represented in the literature there is good reason to focus on it from this perspective alone.

Reissman (2008) advocates four main approaches to narrative analysis; thematic, structural, dialogic and visual. In the first approach the analysis is concerned with the content of the narrative, in the second the emphasis is on the way in which the narrative is structured, in the third approach the researcher considers the effects on the narrative of the audience or those interacting with the main speaker, finally one can incorporate the analysis of visual information. However, narrative analysis is not category centred in the same way as for example grounded theory and Reissman (2008) cautions against too prescriptive an approach. Narrative researchers value the importance of sequential and structural features in a narrative account. It is important for the researcher performing narrative analysis to consider how and why an event is storied, what is accomplished by the narrator when choosing to develop particular parts of the story, what the effects on the listener are and conversely if the listener affects what is told. Hall (2011) in her work with female abuse survivors constructed a template which was used to analyse each woman's story according to content this allowed the researcher to follow the specific aims, motifs, themes, metaphors, views about self, key relationships, power dynamics and help seeking in the accounts.

Although the women in my study were not known to be victims of abuse, there are

many similarities in their narrative that warrants the use of the Hall template as a starting point for analysis.

#### **6.4.2 Qualitative analysis**

The analysis was influenced by Squire (2008) and involved multiple readings of the transcripts, followed by coding for content. I then grouped codes under emerging themes. As suggested by Reissman (2008), at this stage I sought to produce categories. Both content and structural analysis was carried out to elucidate patterns in the narrative such as sequencing, progression, transformation or resolution. Finally the themes were organised across cases to assess any similarities between events and feelings. For more detail regarding the theoretical influences on the analytical method employed see section 6.6.2 below.

### **6.5 Phase 1 Quantitative Study (and Feasibility Study)**

#### **6.5.1 Study design**

The quantitative study incorporated the following study objectives; ascertaining the level of PTSD and PND in a population of postnatal women, determining the key predictor variables for postnatal PTSD and testing the feasibility of using writing therapy as an intervention. This longitudinal study was originally designed as a RCT with a mixed factorial design with two between-subjects factors and one within-subject factor. The between subjects factors were: type of PTSD diagnosis (PTSD/partial PTSD, non-PTSD) and writing about the event, or writing about the event with a meaning making focus and writing about a neutral topic. The within-subject factor was time of assessment (baseline, end of writing and one-month post writing). The study thus formed a two by three by three factorial design.

### **6.5.2 Validity and reliability**

It was important that the study be designed as robustly as possible. Thus I performed a power calculation (see Appendix ii) to ascertain the most appropriate sample size. In addition I used measures which have been previously validated and used in the wider psychological literature. A control group in which women also wrote was included rather than a waiting list or empty control; this also increased the validity of the study by reducing the number of confounding variables (Frattaroli, 2006). Ultimately the treatment conditions could not be controlled, as participants were not observed whilst in their own homes and ultimately one could not know who actually completed the questionnaires. It could be argued that this affected the validity and reliability of data obtained. However, one also needs to consider the negative impact of participants being observed on their willingness to disclose (Frattaroli, 2006). In addition there were further considerations relating to validity of questionnaires which I cover in the section on questionnaires below.

### **6.5.3 Ethical approval**

I originally submitted the outline of the study for NHS ethics committee approval in August 2010; I received ethical approval in February 2011 (see Appendix iii for initial approval letter). Subsequently substantial amendments were submitted and approved in June 2011 (see Appendix iv for subsequent letter).

### **Consent**

Potential participants were identified by staff on the maternity unit at a large general hospital in the South West of England. Women were left with an information sheet (see Appendix v) to inform them about the study: 24 hours later they were asked

if they wished to consent to take part. The information sheet contained an explanation of the details of the study and information regarding the issues relating to confidentiality, anonymity, right to withdraw and freedom from coercion. The information sheet was designed using the guidance provided by National Research Ethics Service (2011). Kenyon and Dixon-Woods (2004) suggest that some potential participants will still not fully understand their role in the research after reading the information sheet. Therefore further verbal information was provided and any questions answered before taking consent (see Appendix vi for consent form).

### **Freedom from coercion**

At no point was any pressure used to obtain consent. After women had read the patient information sheet any questions relating to the study were answered by the researcher. Information regarding potential risks to participants and sources of help and support for those with mental health issues was outlined.

### **Confidentiality**

All information obtained was kept strictly confidential. All paper records were kept in a locked filing cabinet and computerised data were kept on the Plymouth University server which was accessed via user name and password. No personal information was kept on the study website. Participants' names and personal details were not given to any third parties or published.

### **Right to withdraw**

A MORI poll commissioned by the Medical Research Council (2007) suggested that if potential participants felt in control of their information and its potential uses they would be more likely to want to participate. It was made clear in the information

sheet and verbally that participants had control of their information and could change their minds about their participation at any stage in the process.

### **Data protection**

Only those directly involved in the study had access to information supplied in the questionnaires and in the writing task. Interview recordings were kept on a memory stick in a locked cabinet and all transcripts were anonymised.

### **Anonymity**

All records identifying individuals were kept securely either in a locked cabinet or on the Plymouth University server and published data relating to individuals was anonymised. Transcript data were anonymised before other members of the research team viewed it.

To ensure additional anonymity and confidentiality software from Survey Monkey™ was used, this has been successfully used to collect data in other published studies (Westhues et al., 2008). The women in the study received a uniform resource locator (URL) or web address to link firstly to the questionnaires and secondly to the intervention. The participants did not need to provide any identifying details linked to their questionnaire. Using this system personal data were completely disconnected from the data collection process. Survey Monkey™ data can only be accessed by the registered account holder and is protected using a user name and password.

### **6.5.4 Recruitment**

Purposive sampling was used to select participants from a local maternity unit postnatal ward.

The original inclusion criteria were;

- adult women (over 18 years of age),
- primigravidae (women who have given birth for the first time),
- no cognitive impairment,
- no long term psychiatric history,
- able to write in English,
- at least level two qualifications (this is the criteria used in other writing therapy research)
- access to the internet.

Subsequently, due to low numbers being recruited and after ethical approval multigravidae were included.

The original exclusion criteria were;

- women with late termination of pregnancy,
- stillbirth, or miscarriage,
- multigravidae,
- postnatal depression\*,
- cognitive impairment or long term psychiatric history
- educational level below level two.

\* Postnatal depression was originally an exclusion criterion however over time the results showed that postnatal depression appeared to co-exist with post traumatic stress disorder and so excluding these cases would have resulted in no potential participants.

The study was advertised via posters on the postnatal ward of the local hospital (see Appendix vii) and a closed circuit television advertisement in the antenatal clinic and one of the antenatal wards (see Appendix viii). In addition I constructed a website

that although not used as a means of recruiting new participants, was an effective method of communicating ongoing information about the study to participants and providing signposting for potential support if necessary.

Maternity staff at the local hospital identified potential participants from the postnatal ward using the inclusion and exclusion criteria above. They approached interested women and provided them with the participant information sheet if they expressed an interest. The potential participants were asked to consider it overnight: 24 hours later I visited the potential participant and explained the leaflet ascertaining that she understood it prior to asking for consent to participate.

Upon their consent, women were asked to sign a consent form (see Appendix vi). Letters were then sent to the consenting women's general practitioners (GPs) in order to inform them of the participation of their patient in the study (see Appendix ix). Women were contacted again when they were one month postnatal to invite them to participate in the study; it was made clear that they could still withdraw if they so wished.

Questionnaires were hosted by Survey Monkey<sup>TM</sup> and a web link was sent to women to enable access to the initial questionnaires. Women who did not have PTSD were emailed thanking them for participation. Those identified with PTSD, according to the initial selection criteria of a score greater than 29 (as described on pages 56-58), were randomly allocated to a writing or control group and sent the appropriate confidential link to Survey Monkey<sup>TM</sup>.



### 6.5.5 Questionnaires

The relationship between a range of predictor variables on the outcome variables PTSD (Weathers, et al., 1993) and general and psychological health (Goldberg and Hillier, 1979) was investigated. It was postulated that the efficacy of writing therapy may be impacted upon by psychological variables thus administration of psychological measures at both baseline, after writing and follow up was planned. Data for the following variables were collected; demographic data and baby progress, relationship with partner (Hendrick, Dicke and Hendrick, 1998), perceptions of competence in looking after the baby (Parker and Zahr, 1985), trauma history, perception of the birth (Bailham, Slade and Joseph, 2004), PND (Cox, Holden and Sagovsky, 1987), alexithymia (Taylor Bagby and Parker, 1997), general affects since the birth (Watson, Clark and Tellegen, 1988), self-efficacy or coping style (Schwarzer and Jerusalem, 1995), attachment styles (Hazan and Shaver, 1987), and the level of social support received (Zimet et al., 1988). All quantitative questionnaires used in the study can be found in Appendix x a-m. Scoring of measures is reported in chapter two and five. Reliability analysis was conducted on all measures used in the study using Cronbach's  $\alpha$ , these values are reported in chapters two and five. Reliability analysis was necessary to ascertain how consistently the measure chosen reflected the construct it measured (Field, 2009). Initially at the first time point only the general and psychological health, PTSD, PND, maternal confidence and perception of birth questionnaires were used as personality factors, relationships, support and coping styles were deemed to be stable concepts and unlikely to change over time. It was thought to be preferable to administer the additional questionnaires only to those who would be invited to participate in the intervention. However when it became apparent

that the majority of those who were identified with PTSD chose not to write, all questionnaires were administered at the first time point in order to obtain a more complete set of results.

The rationale for inclusion of particular predictor variables and their associated questionnaires can be found in chapter five. To identify cases of post-childbirth PTSD, the Posttraumatic Stress Checklist (Weathers et al., 1993) was used. This assessed levels of posttraumatic stress disorder according to DSM IV (APA, 1994) criteria. The initial intention was to use the questionnaire three times throughout the study: once to measure the PTSD symptoms following the childbirth experience together with any past trauma, again after the intervention and finally at follow up. In practice, as few women accessed the intervention and those that did were lost to follow up, most data were obtained from questionnaires which were administered one month after the women had given birth. The study measures and timing of their use are presented in Table 6.1.

**Table 6.6.1 Questionnaire used and times administered (feasibility study)**

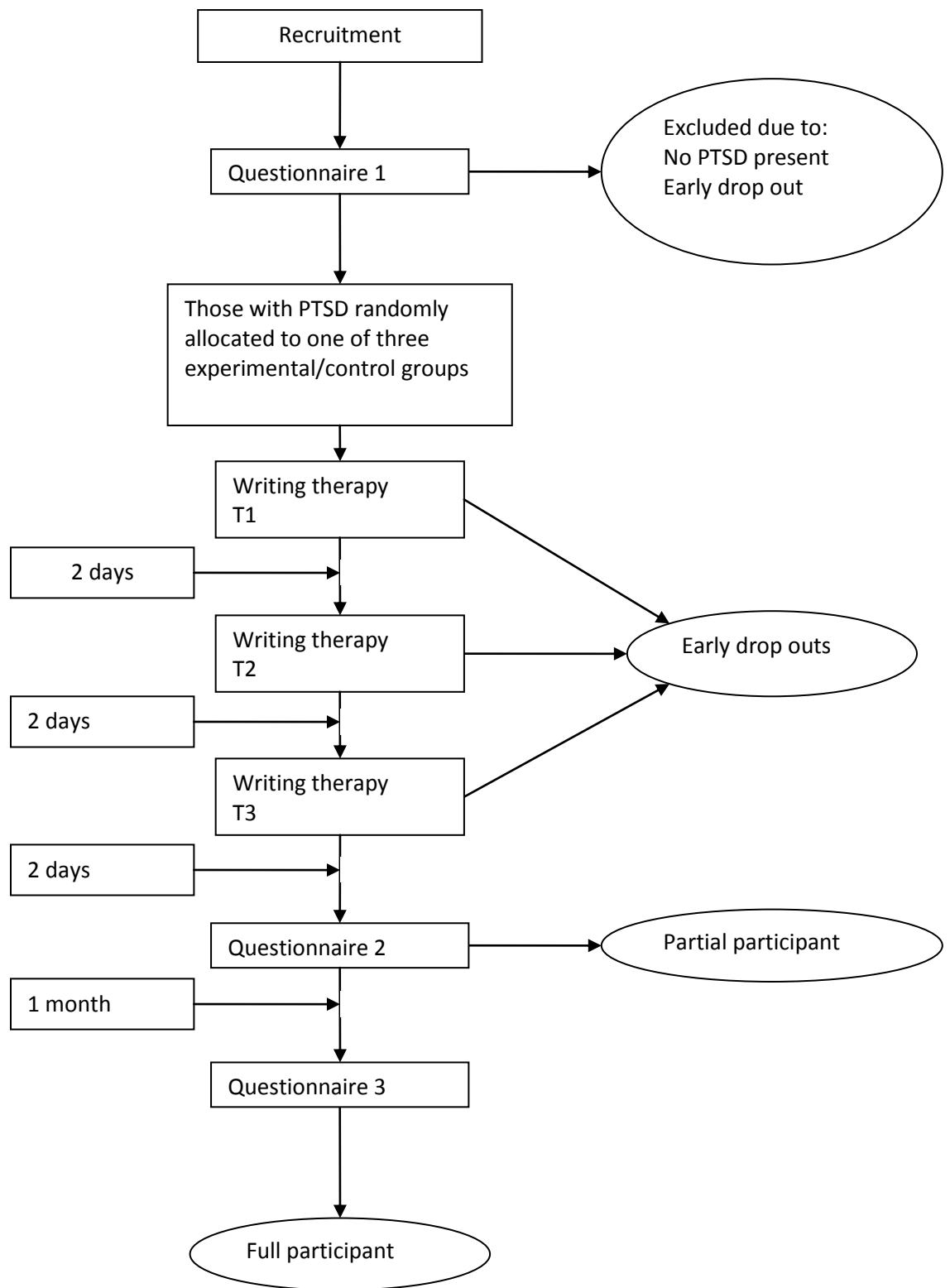
| Questionnaire  | Time point at which administered |                     |                               |
|--|----------------------------------|---------------------|-------------------------------|
|  | T1 (4 weeks postnatal)           | T2 (After writing ) | T3 (follow up- 1 month later) |
| Demographic page including age, marital status, income level, educational level and ethnicity. | √                                |                     |                               |
| Baby Progress, whether the pregnancy was planned, whether the partner was at the birth or not. | √                                |                     |                               |
| Birth Perceptions (Baliham, Slade and Joseph, 2004)  | √                                |                     |                               |
| PTSD Checklist (Weather s et al., 1994)  | √                                | √                   | √                             |
| General Health Questionnaire (GHQ-28) (Goldberg and Hillier, 1979)                             | √                                |                     | √                             |
| Edinburgh Postnatal Depression Scale (Cox, Holden and Sagovsky, 1987).                         | √                                |                     |                               |
| Positive and Negative Affect Scale (Watson, Clark and Tellegen, 1988).                         | √                                | √                   |                               |
| Self-Efficacy Scale (Schwarzer and Jerusalem, 1995).   | √                                | √                   |                               |
| The Relationship Assessment Scale Hendrick Dicke and Hendrick, (1998)                          | √                                | √                   |                               |
| The Relationship Scales Questionnaire (RSQ) Hazan and Shaver (1987)                            | √                                | √                   |                               |
| Multidimensional Scale of Perceived Social Support (Zimet et al., 1988).                       | √                                | √                   |                               |
| Maternal Confidence Questionnaire Parker and Zahr (1985).                                      | √                                | √                   |                               |
| Alexithymia (Taylor, Bagby, and Parker, 1997),   | √                                |                     |                               |

Initially I set up three surveys that included the same questionnaires, but in different orders. The first three replies from each set were treated as a small scale pilot to ascertain if the order of answering would affect the way in which they are

answered. It is thought that randomization of the order of the questionnaires will improve validity as preceding questions can sometimes set a context in which a respondent answers and changing the context will affect the survey results (Lacy, 2001). However there did not appear to be any differences in the way they were answered in the current study, so after the initial pilot question order was not changed. Previous research has shown that psychological questionnaires administered via the internet have the same level of reliability as those administered by more traditional means (Riva, Teruzzi and Anolli, 2003). When using questionnaires it is important to maximize the response rate. Research has shown certain factors such as personalization, simple wording, inclusion of pictures and brevity are important issues to consider when designing electronic surveys and questionnaires (Edwards et al., 2009). Although there was little I could do to reduce the length of the questionnaires I designed an attractive recognisable logo and a colour scheme which was applied across all materials used in the study in order to provide consistency. The design of the questionnaires was influenced by the findings of the Cochrane review of questionnaire design (Edwards et al., 2009). The data collected at this stage were used to form the baseline assessment before commencing writing interventions.

It was envisaged that, given the impact of new parenthood, there would be a high level of drop out from the study. The flowchart (Figure 5.1) shows four types of participant data that were collected from the study. The data derived from early drop outs and partial participants provided information on prevalence of postnatal PTSD and the influence of moderating factors on participants with PTSD. It is acknowledged that only data derived from full participants would have determined if writing therapy reduced PTSD symptomatology. Recruitment took place over a two year period in

order to accrue as many participants as possible in order to ensure a robust study which would produce statistically reliable data.



**Figure 6.1 Questionnaires used and times administered (quantitative phase)**

The questionnaires selected for the study have been used in previous research and have mainly been validated through previous studies. However, it is likely that few of these questionnaires have previously been administered via the internet, the main disadvantage of using internet questionnaires is the low response rate compared with other methods. A Cochrane review comparing postal and internet response rates to questionnaires found that for either method of data collection short personalised questionnaires which offered an incentive resulted in a higher response rate (Edwards et al., 2009). Fan and Yan (2010) reviewed the main factors affecting response rates in web based surveys and this informed the design of the questionnaires for the current study. They suggested four main factors which improve response rates; the strength of the relationship with the surveyor, the numbers and spacing of reminders, invitation salience (the personal appositeness to the survey), and the exclusivity of invitation. I will seek to address each of these with respect to the design of the current study.

In order to ensure that women gave informed consent I spoke personally to as many women as possible at the recruitment stage. Women were recruited over a two year period between January 2012 and January 2014. I visited the hospital three times a week during that time and spoke to all women who had received an information sheet. The number of women initially invited to participate was 1176 and consent was gained from 938. It could be suggested that since they had at least met the researcher, as opposed to receiving an invitation to take part purely via the internet, the contact could have influenced their willingness to take part (Edwards et al., 2009). I anticipated that newly postnatal women needed reminders to take part and all participants were emailed at one month postnatal with the link to the questionnaires; if they failed to respond I prompted them after two days. It is possible that many of

the potential participants were interested in research around how they may be feeling postnatally and may have had a heightened sense of empathy and altruism about the idea of aiding those with psychological sequelae related to the birth experience. This could be engendered by increased levels of oxytocin postnatally which has been shown to create close inter female bonding (Brown et al., 2009).

Additionally Edwards et al. (2009) found that other factors can increase the likely response rate to questionnaires these include; length (the shorter the better), appearance (including pictures can double the response rate), a more interesting style, who sent the questionnaire (a female author will gain a better response) and an indication that others have already responded. In consideration of the above factors I originally reduced the length of the second and third questionnaire as some of the personality, support and relationship data remained stable and did not need to be extracted several times. I included a logo and picture on the questionnaire and am fortunately already female.

#### **6.5.6 Writing intervention**

On the basis of the initial screening information women with PTSD or partial PTSD (those who scored 29 or more) were identified using the Weathers et al. Posttraumatic Stress Checklist (1993) and subsequently randomly allocated to intervention or control groups (Campbell and Machin, 1993). Although the expressive writing method is detailed below this intervention was only accessed by seven women, the majority of whom were lost to follow up, so complete data sets were unavailable. Thus statistical analysis was not possible for the effect of writing therapy on PTSD.



The two intervention groups comprised directed writing therapy and directed writing therapy with meaning making the control group involved participants writing about a neutral topic. The women were asked to engage in the writing therapies three times a week for one week. This was based on the original writing instructions of Pennebaker and Beall (1986) and discussed further in chapter four. The specific writing therapy instructions for each group can be found in Appendix xi. Women participated in the therapy whilst in their own home, previous studies have shown that disclosure conditions may influence the outcome of disclosure, it has been suggested that privacy is important for useful disclosure to take place and previous home based studies have shown larger effect sizes than clinic or lab based ones (Range, Kovac and Marion, 2000). This research influenced the decision to use the internet to administer the intervention.

The writing instructions were derived from recent research. Sloan, Marx and Epstein (2005) examined the effects of writing about the same experience during each writing session rather than different experiences and found that PTSD symptoms were reduced when participants were asked to write about the same experience at each of the three sessions. On the basis of this I decided to ask participants to write about the same experience each time. There is debate in the current literature about the importance of including meaning making in the writing instructions. The following studies found that a meaning making element improved psychological outcomes; (Stanton et al., 2002; Alvarez-Conrad, Zoellner and Foa, 2001; King and Miner, 2000; Amir et al., 1998), however Bootzin (1997), and Sloan and colleagues (2007; 2005; 2004) showed that focused emotional expressive writing was more beneficial. Additionally, Ayers et al. (2008) discuss the fact that problematic post traumatic stress

reactions may occur when the normal survival processes become 'stuck' in a comparable way to pathological grief, so when people attribute meaning to an event it is a fundamental part of whether they are able to adapt in the light of that event or not. They suggest that research should focus more on how the meaning women make of birth links to positive or negative change.

Since there has been no research measuring the effect of these two conditions on postnatal women with PTSD it was decided that the feasibility study should comprise three writing groups; one focusing on emotional expression, one with a meaning making element and one control group where the women wrote about a neutral topic.

Pennebaker and Campbell (2000) recommended writing for at least 15 minutes for three sessions. Pennebaker has considerable experience in this field and his methods influenced the choice of timing for sessions in this study. Additionally, Frattaroli (2006) in her meta-analysis found that three or more sessions produced larger effect sizes in participants. It is also important that the instructions ask participants to stay focussed on one topic during the writing session or between sessions as it is thought that changing topics may inhibit the writer's ability to form a complete story. In fact Gidron et al. (2002) gave very specific instructions; in the first session they were to write about their thoughts and feelings at the time of the event and to describe whether the event had affected their life. During the second session they were asked what they currently thought about the event and in the final session they were asked to describe what they would do in the future. It is thought that some participants may be put at ease by more directed questions and this may aid the disclosure process. The wording of the writing directions used in this study was

influenced by that used by Gidron et al. (2002) and Yule et al. (2005). Choice of follow up timing was influenced by the following studies; Bugg et al. (2009), Baikie (2008), Danoff Berg et al. (2006) and Brown and Heimberg (2001), whose studies used a follow up period of one month. Frattoroli (2006) discusses the importance of considering the optimal timing for maximum effect size without re-measuring too soon after the intervention and this was also considered to be important when planning the optimum follow up time.

Previous studies have also shown that it is important to consider the type of control used for disclosure studies. Frattoroli's meta-analysis (2006) showed that when researchers conducted studies in a rigorous manner they always used a control group in which participants were asked to write about neutral topics without expressing emotion rather than not writing at all. She also found that it is important to lead both the experimental and control group to expect their participation to be beneficial to them or to give a vague explanation but to all groups. This influenced the choice of instructions for the control group and the information given to each woman prior to participation in this study.

Sloan et al. (2007) found that encouraging emotional expression during the writing process produced significant improvements in psychological and physical health at one month follow up and Smyth, Hockemeyer and Tulloch (2008) reported that when thoughts and feelings of trauma victims were disclosed a higher degree of post traumatic growth was found. In addition, Pennebaker et al. (1997) found that, as participants increased their use of words associated with meaning making whilst writing, physical health outcomes were improved. This research influenced my desire to investigate the effect of a specific set of meaning making instructions on mental

health outcomes of postnatal women suffering from PTSD. Previous researchers have found that the process of searching for meaning will result in better adjustment to the traumatic event (McIntosh, Silver and Wortman, 1993; Creamer, Burgess and Pattison, 1992). Hayes et al. (2005) found that higher levels of meaning making attempts correlated with reduced depression and increased perceived growth and self-esteem. There is much debate as to whether meaning making instructions in expressive writing should focus on an experiential, rather than an evaluative, mode of emotional processing (Park, 2010) and some have proposed that if participants were merely encouraged to engage in further rumination on their trauma this may not always lead to adjustment, especially if negative evaluations of the experience have been made (Gortner, Rude and Pennebaker, 2006). Researchers investigating those traumatised after the 9/11 attacks in the US found that searching for meaning shortly after the event related to increased levels of PTSD, however finding meaning at two months after the event influenced subsequent adjustment up to two years later (Michael and Snyder, 2005) so the timing of meaning making with relation to the traumatising event may also be important. In this study meaning making attempts were encouraged at one month (when the intervention took place) but the follow up PTSD questionnaire was administered at two months, so it could be postulated that more meanings may have been made by the time follow up questionnaires were administered and also by the time the interviews took place.

The women were given instructions about how to take part in the study via an email link to Survey Monkey<sup>TM</sup> that hosted the questionnaires and writing instructions. Participants were sent reminder emails at the appropriate time points in order to complete the next part of the therapy on Survey Monkey<sup>TM</sup>. At the end of the week of

writing intervention, women were asked to complete questionnaires on general and psychological health, general positive/negative affects and the severity of PTSD/partial PTSD symptoms. The above measures were repeated four weeks after the end of writing therapy.

### **6.5.7 Website construction**

A website ([feelwrite.org.uk](http://feelwrite.org.uk)) was constructed in order to inform women of the background to the study and its progress. It also provided basic information about mental health difficulties that can affect postnatal women; additionally it provided links where women could receive help if needed. The details of the website were placed on all the literature that the women received.

### **6.5.8 Data analysis**

Main effects and interactions were determined. Because a very low number of participants took up the intervention, insufficient data were obtained to undertake meaningful statistical analysis of the effect of writing therapy on PTSD. Thus the analysis was used to determine the effect of the predictor variables (referred to in chapter five) on the outcome or dependent variables, PTSD and general and psychological health. The IBM SPSS computer software package was used to support analysis of the data. Regression analysis was used to predict outcome variables from predictor variables (Hinton, 1995). Likely predictor variables had been selected based on previous research by Bailham, Slade and Joseph (2004) (see chapter five). This produced a linear plot for the following variables; personality factors, relationships, social support and coping styles. Goodness of fit was assessed using the model sum of squares (Field, 2009). Generalisability of the regression model was ensured by

identifying outliers and influential cases using adjusted predicted values. The resulting multiple regression models were used to determine which predictors contributed substantially to the models' ability to predict the outcome i.e. whether variables such as personality predicted PTSD and poorer general and psychological health.

Effect size calculations are affected by sample size (Field, 2009) as if sample size is too small random data can appear to show a strong effect. Field (2009) recommends a sample of  $104 + K$  where  $K$  is the number of predictors for testing the model. Thus a sample of at least 115 was originally judged to be necessary. However, so few women participated in the writing intervention that no effect size could be calculated.

## **6.6 Qualitative Study**

My intention in this part of the study was to interview a small proportion of participants from the feasibility study to assess the impact of the writing therapy on their view of themselves. However, owing to low numbers of women accessing the writing therapy only one woman was interviewed after writing. The interview took place in the woman's home at her convenience. The interview was digitally recorded with the woman's consent.

Due to the low uptake of writing, I felt it was important to explore in greater depth the reasons for this. Therefore seven women were interviewed who chose not to write, this was an opportunity sample of women who responded to an email request to take part. I subjected the transcripts of all interviews to narrative analysis according to the methods outlined by Reissman (2008) and Hall (2011).

The semi-structured interview schedules used with the woman who accessed writing therapy is presented in Table 6.2.

**Table 6.6.2 Semi structured interview schedule after writing**

|  |
|--|
| How easy has the process of writing about your experience been for you?<br>Has writing about the trauma helped you to understand it better?<br>How did the process of writing help you cope with your feelings about the trauma you experienced?<br>How has the writing affected the way you see yourself as a person?<br>Has the writing helped you make sense of the traumatic event in any way? |
|--|

The semi -structured interview schedule used with the women who did not access writing therapy is presented in Table 6.3.

**Table 6.6.3 Semi structured interview schedule for non-writers**

|   |
|---|
| How did you feel about your birth experience?<br>Did these feelings change over time?<br>How are you feeling now?<br>If there has been a change, has anything helped or hindered you?<br>Have there been opportunities other than writing where you have been able to express your feelings about the birth?<br>When we asked you to write about your birth experience what was your reaction?<br>Were there any practical things that stopped you from writing?<br>Was the timing of the suggestion to write important?<br>Is there any other way writing could have been made easier for you to do?<br>Could you suggest anything else that you think would be helpful for women in your situation? |
|---|

I aimed to conduct the interviews in a gentle and sensitive manner and tried to maintain an open and non-judgemental approach. Bishop and Shepherd (2011) acknowledge the difficulties associated with the researcher's desire to be reflexive in the interview situation and suggest that researchers should observe, listen actively, encourage without interrupting, have open body language and balance the desire to stay on topic with flexibility for the participant to digress. The questions were designed to explore participants' feelings about their birth experience and the idea of writing about it. These transcripts were also subjected to narrative analysis on

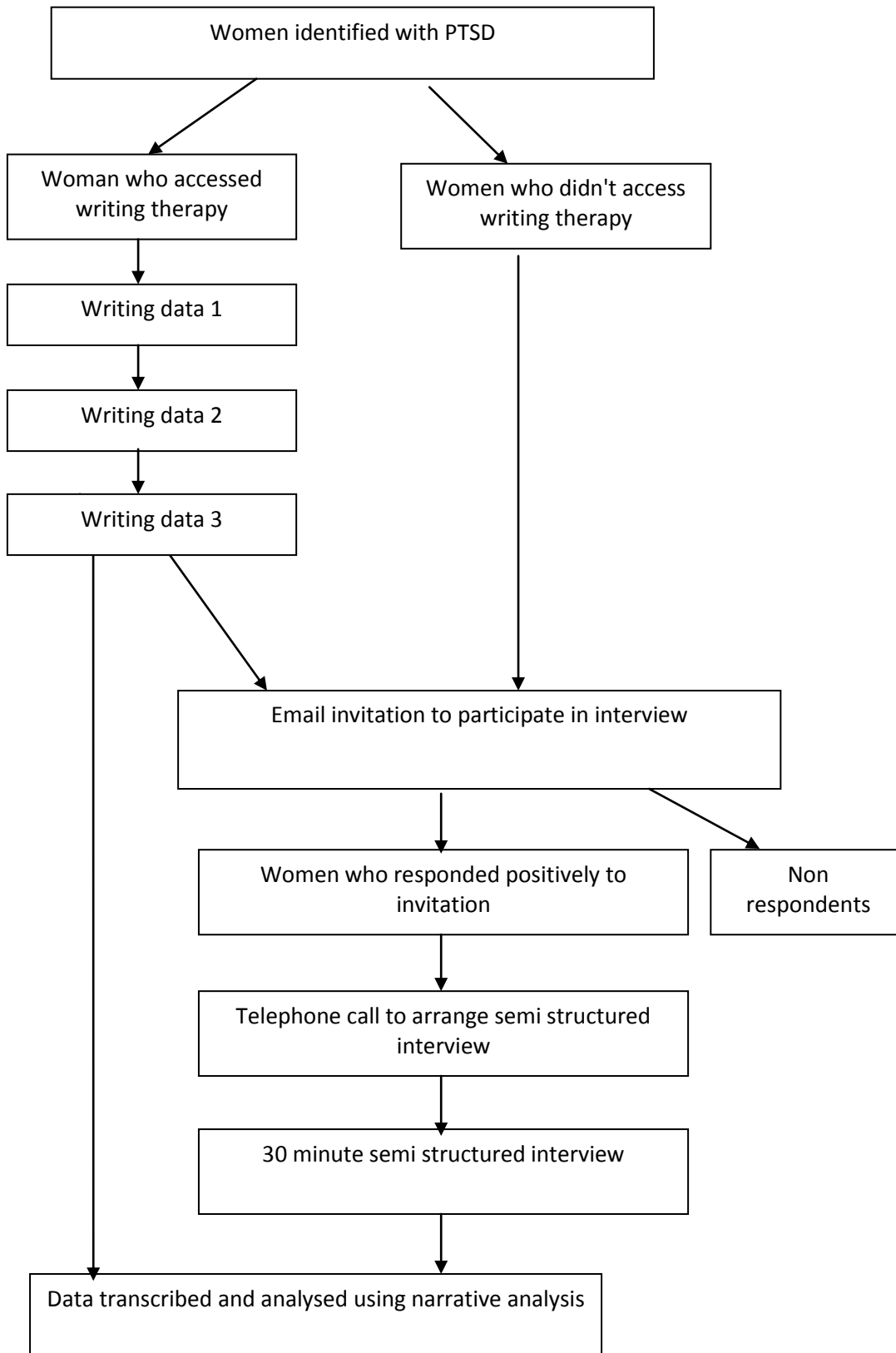
recorded responses. The methods described by Reissmann (2008) and Hall (2011) were used to elicit key themes, structure and dialogic elements emerging from the interviews (see chapter nine and ten for more information) see Figure 6.2 below for a flow diagram of the qualitative study.

### **6.6.1 Validity**

By using Narrative Analysis for the qualitative part of the study I was aware of the potential influence of my own beliefs about issues surrounding birth on the direction of the interview and my interpretation of the transcription. In order to explore my own views at the start of the study I took part in a bracketing interview with one of my supervisors. I then transcribed and reflected upon the interview which enabled me to increase my objectivity and reflexive ability (see chapter seven for details of the reflexive approach). This process prepared me to investigate the accounts of the participants whilst being aware of my own particular experiences of birth and postnatal life (Rolls and Relf, 2006).

Study trustworthiness was also enhanced by accurate transcription of the recorded data and by using independent coding of the data and by discussion of themes by two other researchers. Finally validation of data was achieved by triangulation of results from the case study, qualitative and quantitative studies.





**Figure 6.2 Qualitative phase design flow diagram**

### 6.6.2 Data analysis

After extensive reading and re-reading the transcripts were subjected to the following analysis: thematic, structural and dialogic (Reissman, 2008). In the first approach the analysis is concerned with the content of the narrative, in the second the emphasis is on the way in which the narrative is structured, in the third approach the researcher considers the effects on the narrative of the audience or those interacting with the main speaker. Finally, one can incorporate the analysis of visual information. Labov (1972) in Andrews, Squire and Tamboukou (2008) was an early narrative researcher who contested that there is normality to the structure of a narrative. His devices help to identify distinct parts of the narrative and comprise; external evaluation (narrator stands outside the story 'it really was a terrible feeling'), embedded evaluation (tells how they feel at the time 'I was terrified'), evaluative action (reveals emotions without the use of speech e.g. 'I burst into tears'), intensifier (expressive phonology), comparator (something that could have happened but didn't) and explicative (invoking causality e.g. 'but because').

I was aware of the importance of these devices in exploring the structure of the narrative, however Andrews (2008) discusses the extension of this method where the researcher is encouraged to identify state clauses, which represent a state of affairs persisting over time, and event causes, which represent one discrete occurrence. Reissman (2008) cautions that there may be overarching elements of the text which can be analysed using Labov's (1972) methods, but other parts may require an experiential approach. The methods advocated by Reissman (2008) may also be richer by incorporating dialogic and visual as well as thematic and structural elements.

Furthermore Squire (2008) suggests researchers should describe each interview thematically, derive theories and test them, moving back and forth through the stories (top down and bottom up interpretive procedures). This approach is much the same as that used in grounded theory analysis (Corbin and Strauss, 2008) however in experience centred narrative analysis there is additional focus on sequencing and progression of themes within the interview as well as their transformation and resolution (further detail regarding analysis can be found in chapters nine and ten). Additionally, Josselson (2011) and McHugh (1999) agree on the importance of exploring the voices which emerge from the narrative and, in the latter case, women's voices emerging from a medicalised form of knowledge, thus I also felt it was important to analyse the individual elements of each woman's narrative. In the case study additional content analysis involved exploration of emotion and cognition words used in the writing therapy transcript this is explained in more detail in chapter ten.

## **6.7 Case Study**

When it became apparent that few women chose to access the writing therapy I decided to perform an in depth analysis on one participant who completed all questionnaires, participated in writing therapy and agreed to be interviewed afterwards. This forms a separate chapter in the thesis (chapter ten). The case study was primarily inductive and instrumental in approach enabling the development of some theoretical insight (Stake, 1995).

## **6.8 Conclusion**

In this chapter I have explained the rationale behind my methodological stance and described my journey as a researcher. I have outlined the phases of the study and

the methods used to collect data at each stage. I have also introduced the approaches I used for quantitative and qualitative analysis of the data obtained. In the next chapter I explore the reflexive approach that influenced the planning, data collection and analysis in the study.

## **7 Reflexivity**

### **7.1 Introduction**

Bryman (2001) defines reflexivity as awareness by researchers of the implications and power relations of their methods, values and decisions during the research process. In many ways the awareness of one's own research paradigm and the beliefs and values held by the researcher at the start of a project are also consistent with a reflexive approach. Indeed Bishop relates the fact that her early past experiences affected her choice of research study (Bishop and Shepherd, 2011) and this is pertinent to me in that my past interest and experience with postnatal women was an important factor in my choice of research questions and design. However, Bishop and Shepherd (2011) also suggest that subsequent beliefs and values that shaped Bishop as an academic also coloured her view of the participants in her study. I felt that it was important that I was conscious of, and sensitive to, the individual needs of each woman participating in the study in the same way as I would have been as an antenatal practitioner; regardless of a woman's level of participation. Additionally I was aware of my own strongly held beliefs around empowering women through support for birth and early parenting and I needed to be aware of the potential impact of these beliefs on the design and implementation of the research. In the subsequent sections I seek to justify the importance of a reflexive approach during the research journey.

## **7.2 Study Design**

Alvesson (2002) suggests that the postmodern researcher, aware of the more complex interpretations involved in social research, should adopt a pragmatic philosophy in order to balance continual reflexivity with an overall vision directed towards the accomplishment of results. I became aware of this balance when the research questions I originally posed at the start of the research journey required changes: at several points I needed to re-think my direction in response to the findings. My original inclination towards a study incorporating a great deal of analysis around factors associated with the effectiveness of writing therapy for postnatal women with PTSD, needed to be re-envisioned and a revised direction emerged once it became clear that few women responded to the invitation to write. After reflection, I decided to re-position the research paradigm more constructively in order to explore the voices of women and their needs and ideas about possible treatment or self-help options. However without a reflexive approach it is harder to envision opportunities for an alternative direction when encountering such obstacles during the research journey (Ahern, 1999).

## **7.3 Recruitment**

In an Australian study, Watson et al. (2008) found that when researchers recruited postnatal women whose babies were in neonatal intensive care (NICU), 74% of those with baby loss were not approached. It is possible that researchers in this sensitive position found it more daunting to approach a recently bereaved mother than other postnatal women. During the current study there were times when midwives particularly directed me to women who had experienced a traumatic birth

and there were also occasions where I judged that an approach would not have been appropriate, as the woman was distressed. Baker, Lavender and Tincello (2005) concur with Watson et al. (2008) regarding the importance of an individualised approach when recruiting, as women can feel that researchers are insensitive during the initial meeting. An insensitive approach is not only ethically unsound, but also likely to result in reduced numbers of participants. Neal and Clark (2013) refer to the importance of 'impression management' for the recruiter. They discuss factors which may subtly influence recruitment of potential participants. As far as I was concerned, whilst recruiting in the postnatal ward I was aware of paying attention to my manner, dress, empathy and my initial reaction to potential participants. I was acutely aware of the need to treat women sensitively, which resulted in taking time to listen to their story even when they declined to participate.

Baker, Lavender and Tincello (2005) found a number of factors which affected women's decision to take part in a postnatal study, including professional approach, status and manner of the researcher. Some liked the idea that their participation was altruistic; this was confirmed during my conversations with potential recruits in the current study, as some stated that although they felt they would not have PTSD they agreed to participate in order to potentially help others in the future.

I was interested in the participatory approach presented in the feminist research literature as summarised by Holloway and Wheeler (2002) because I felt it was important that participants were viewed as individuals rather than 'subjects' of research. Also, as a female researcher working with women at a pivotal point in their lives, I felt I wanted to engender collaboration. Thus it was important for me to provide information on the progress of the research by providing participants with

access to my website. Varga-Dobai (2012) succinctly describes the main arguments for a feminist perspective in research. Firstly she critiques the positivist view of the immutability of the social world and the need to acknowledge subjective and situational truths. Secondly she argues that the relationship between the research subjects needs deconstructing in order to eradicate exploitation of participants by researchers. However, Karnieli-Miller, Strier and Pessach (2009) posit that power structures are in operation at all stages of the qualitative research process. Therefore researchers need to be alert to the possibility that, although one might expect the researcher to hold power, there are times, for example during interviews, when participants choose the direction the interaction takes and so the shape of the encounter becomes subtly negotiated and potentially collaborative.

#### **7.4 Reflexivity in Interviews**

Bruner (1986) summarised the 'double consciousness' required by the researcher during the semi-structured interview:

*'fieldwork involves at least two double experiences namely researchers experiencing themselves , researchers experiencing informants, informants experiencing themselves and informants experiencing researcher' (p. 14 )*

Karnieli-Miller, Strier and Pessach (2009) suggest various rapport building strategies are required by interviewers; these include observation and active, non-interruptive listening to encourage fluidity, whilst displaying open body language and judging carefully when to allow digression. However, Bishop and Shepherd (2011) caution that researchers are often so absorbed in their own 'identity performance' that it is almost impossible to simultaneously evaluate their own impact on the interviewee. I found this particularly relevant as a novice interviewer. I was conscious



of the need to use techniques to put the participant at ease and also to listen and probe as required. However, it was very hard at the time to also be aware of the impact I was having on them and on what they chose to talk about.

Mauthner and Doucet (2003) suggest that it is only with hindsight and distancing that some insights regarding the researcher's impact on the data emerge. An example of my possible impact on what participants chose to talk about during the interview, which only became apparent after re-reading transcripts, was their references to their maternity notes. Several women referred to them during the interview, this could be because they viewed me as a maternity professional and so felt that by referring to them it gave their story more 'objective' weight from my point of view, or because they associated me with the factual events of the story because I had previously asked them to write about those facts about the birth of their baby.

Extract from semi structured interview with Annie showing that she talked about the notes in response to my question about them:

*"A: Um a little bit my midwife, my midwife down here who was gonna get my labour notes, um because it took a long time to get over...*

*S: Really?*

*A; What had happened really*

*A; So I still don't watch things about....*

*S: Ummm*

*A:.....because you watch them before but now I can't face watching them*

*S: So have you had a chance to go through your notes?*

*A: No she got in touch and I haven't caught up with her so I haven't had a chance to go through my notes yet so I'm going to phone her and say please can I have them?*

*S: Yes*

*A: She got them back and photocopied them from the hospital but.....um I didn't think at the time to photocopy them because..*

*S: You don't though do you*

*A: I'm not sure whether I want to read them or not, but I want them and then I'll have the choice whether I do or I don't." (Lines 6-22)*

Wilde (1992) attests that researchers often assume their prior role in an interview situation (for example a teacher, therapist or clinician) in contrast to the objective stance encouraged by adherence to a positivist methodology. However Reger (2001) asserts that this is an inevitable and unassailable part of the 'luggage' carried by the researcher; because their role has been internalised, he argues it would be false to alter the style of interaction, especially as the interaction may be beneficial for participant or researcher. The following example from the interview with Donna and the second bracketing interview illustrate this point.

Extracts from interview with Donna:

*"...The debriefing thing would be quite nice because I remember when this lady came and asked about the skin to skin and then she went back and read the labour notes and she went 'oh ...oh I see what happened and the (can't make it out) ...oh umm yes well (sharp intake of breath) ' and it all sort of got hushed away then sort of thing and I was ' well what actually was written in there..." (Lines 315-320)*

*D: (long intake of breath) "Being able to read all my own notes would be very helpful. Because I can re-analyse and fill in the parts which I don't remember and because there are obviously bits which I ...ur you don't remember all of it and you obviously only see the entire room from your own perspective not from anyone else's but notes written by someone else is gonna be the other perspective and it would be interesting as to what they actually say and have the opportunity of doing that , that would actually be very good for me ....." (Lines 341-349)*

Extract from Second bracketing interview:

*J: "In terms of umm just moving on to thinking about the way that you are partly using yourself to support these women I seem to remember there was one particular case of a woman who was able to seek help following the interview and I wondered if you could tell us a little bit about that because you felt that there was something unique that happened around that?" (Lines 215-220)*

*S: "...maybe two months after I'd seen her I then met her when I was at the hospital and she was very happy to see me, very happy. And said 'oh you'll be so pleased to know that I've just been and spoken to the head of midwifery and she's gone through my notes' And she felt... what do you call it? She felt the whole situation had been resolved to some extent because they had mentioned the particular midwife who she had an issue with..." (Lines 232-238)*

In addition to the above I was also aware of the need to build rapport (Whiting, 2008) and create an emotionally warm environment given that the women may be sharing highly sensitive topics (Elmir et al., 2011). Thus although I fully intended to work reflexively during the interview process with hindsight this was difficult to achieve. I was mindful of Reissman's (2008) suggestion, that narrative interviewing should not be limited only to using set techniques but also requires sensitivity and reflection on the researcher's part continually during the process. Indeed I feel that as I became more experienced I was able increasingly to reflect more 'in the moment' during the interview process. Additionally, Finlay (2002) suggests that the research encounter involves constant negotiation and that psychodynamics are also operating during the interaction such that almost inevitably both participant and researcher exert an unconscious influence over the process.

Bishop and Shepherd (2011) offer some re-assurance for the novice, in that even if participants are re-interviewed to ascertain whether the researcher has affected them, their accounts would be subjective and narratively re-constructed and so would still be incomplete; since, telling and re-telling stories is an iterative process of meaning -making. Indeed the human desire to attribute meaning is constructed through and with time (Andrews, Squire and Tamboukou, 2008) thus particular features of the story could dominate or be subsumed as meaning was made over time. Researchers are encouraged to fully immerse themselves in the interview transcripts before starting analysis and it is perhaps at this stage that researchers can be more reflexive and seek to understand the factors affecting the process of knowledge production through looking back 'on' the interview process (Mauthner and Doucet, 2003).

## 7.5 Bracketing

Rolls and Relf (2006) suggest that by taking part in bracketing interviews with a skilled supervisor, before and after conducting semi-structured interviews, the researcher's objectivity and reflexive capacity can be increased. Although many authors advise that valuable alternative insights can be gained by involving others in the research team for data interpretation (Andrews Lyne and Riley 1996), fewer have used bracketing as a way of adding reflexive insight. Indeed Ahern (1999) suggests that bracketing is not just a way of bringing to light potential bias in terms of the researchers beliefs, values or preconceptions, it is actually essential at all parts of the research process. For example bracketing can help to re-assess the power dynamics in operation, or even how you decide to position yourself when writing up the research (Ahern, 1999). In the current study I engaged in interviews with a supervisor prior to conducting semi structured interviews and also after they had been completed. I think this helped me to explore my views around childbirth and the mental health needs of postnatal women. In the second session I was also able to explore the impact that I felt I may have had on the story the women chose to tell. Additionally it helped expose any assumptions I already had or subsequently developed (Mauthner and Doucet, 2003).

An issue which became apparent in the second bracketing interview was my inability to balance the tension between being a researcher and a practitioner, in a way despite my awareness of the importance of being reflexive my professional persona, prompted by a strong feeling of empathy, impacted upon the course of the story because perhaps, I was subconsciously seeking to 'rescue' the woman.

Extract from second bracketing interview:

J: *"It's interesting though isn't it because as a I wonder whether there was a kind of tension for you again around kind of being a practitioner who might have had the freedom to talk to women in depth about anything they wanted to talk about and a researcher with a kind of ...with your semi structured interview"*

S: *"... towards the end often I couldn't help myself ... but I think the conversation went in that direction and I would have felt false if I hadn't actually given those suggestions at the time so I think there's always a...you're always holding that balance there and it's impossible to be fully one or fully the other there has to be a bit of crossover I think." (Lines 194-206)*

## **7.6 Reflexivity in Analysis**

As far as the manipulation of quantitative data is concerned researchers may often select analytical tools based on what is already familiar, published literature or personal recommendations. In the current study I was extremely aware of my relative inexperience regarding the use of statistical tools. In an attempt to rectify this I attended training sessions to use the IBM tool SPSS. However this only delivered a basic understanding of the topic. I relied heavily on the expertise of one of my supervisors and to some extent was perhaps less questioning in this phase because I felt so reliant on their knowledge. Thus the choice of for example, correlation, regression, and mediation was influenced by both current PTSD literature and a supervisor. I was aware however, that even if quantitative results appear more objective and perhaps less open to question it was still my choice about which techniques to use to manipulate the data. Polit and Beck (2010) caution researchers against thinking that reflexivity is only associated with the conceptual stage in quantitative studies. They suggest that reflexivity should also be operating when the data collection and analysis occurs. In order to retain my reflexivity in this phase I considered several of the points at which data were changed as a result of my approach. For example, I decided to reject cases where questionnaires had not been

fully completed. Although Survey Monkey provides an interface where it prompts respondents to complete each field some participants still did not complete all questions. There are several likely reasons, firstly as they had thirteen questionnaires to complete they may have been distracted by the demands of the baby and been unable to return to the questions, secondly they may have missed answering some questions accidentally and thirdly as the questions were regarding mental health they may not have wished to divulge some information about themselves. In accordance with the suggestion of Howell (2008) who recommends listwise deletion of incomplete cases, all cases with large amounts of missing data were not included in analysis. However it is likely that by deleting incomplete cases bias may have unintentionally been introduced as it may be possible that some women deliberately chose not to answer questions relating to their mental health status and this weakness is acknowledged. Moreover I also conducted imputation (which generates results for missing data sets and which is a readily accepted technique) for cases where one or two responses were missing overall. Thus during quantitative analysis I constantly needed to make choices about the data in order to make it suitable for computer analysis. These choices meant that the data gradually became something other than that which was originally collected. I am aware that all researchers use such techniques but a reflexive approach ensures that we don't glibly accept, but rather question at every stage.

I was particularly aware as a researcher conducting narrative analysis that I have a self- biography and that my story as a researcher weaves through 'their stories' as participants. In the same way as my identity shaped the interview my identity also shaped my approach to analysis. Reger (2001) advises that the postmodern researcher

needs to be aware of the two competing voices inherent in the feminist researcher. She suggests we need to acknowledge the 'objective' or masculine approach and listen to our own subjective voice of self and how this can enrich the analytical process.

I needed to engage with thinking about the type of analytical tools appropriate to the qualitative part of the study. I reflected on the type of analysis which would make sense of women's stories about birth (refer to chapter six, section 6.4. for more detail about how narrative analysis gradually emerged as the tool most suitable for the current study). Mauthner and Doucet (2003) remind the qualitative researcher to be aware that meanings are made and not found. Thus I needed to be conscious of the meanings that I chose to emphasise during the process of analysis and those that I regarded as less meaningful. The second bracketing interview in particular helped me recognise themes from the women's interviews that had a particular resonance for me as a healthcare professional. In the following example, in response to the supervisor's question about themes I was drawn to, I describe the complexity of postnatal PTSD, which I felt had emerged and highlight my dilemma over whether the understanding of complexity was construed by me:

J: *".....what was your kind of sense of what you might have noticed or been drawn to in their stories before kind of looking at the data in detail..."* (Line 115-117)

S: *"... Well there were certain things I ...it's difficult now to know whether I noticed it at the time or I subsequently noticed it..."* (Line 122-123)

S: *"... I always went to them thinking that their PTSD score was related to their birth, and many of them had had not ideal births but what seemed to be the case in urrr for every person was that there was something else. There was some other big incident that was impacting on them and umm until I sort of embarked on each interview I didn't really realise what that thing was..."* (Line 125-130)

I felt that in choosing narrative analysis I was able to acknowledge the importance of narrative in women's lives and the powerful impact of the birth

narrative on women's perceptions of themselves. However, being reflexive also enabled me to be aware of my narrative or story as a researcher whilst simultaneously examining participants narratives or stories. This view of the reflexivity during analysis or interpretation is supported by Reissman (1993) who suggests that the features researchers choose to select for analysis are not only linked to the evolving research questions, but also to our personal biographies as researchers. Horsburgh (2003) concurs that not only is any theory that is derived from analysis inexorably a product of the researcher's context, but also it is interpreted by those who are also subject to their context.

The individual history and context of the researcher and the impact of this on subsequent interpretation is demonstrated in the following example. Excerpts have been extracted from my reflective diary written after supervision with my director of studies. This shows the importance of considering personal context as a researcher and its effect on potential biases. I reflected on the difference of opinion which my supervisor had about one of the interviewees (Donna).

Extract 1:

*"In response to looking at the transcript from Donna, H remarked on how demanding and condemning of her midwife Donna was..."*

Extract 2:

*"In discussing the case with H I felt that she seemed sympathetic towards the midwife and seemed to suggest that she was following protocol in terms of paying attention to note-taking. However my personal view (which was undoubtedly influenced by my strong feelings about the powerless of women in hospital settings) of the story, was that the woman felt ignored and unimportant. Especially since the midwife could have been a vital source of support during a important rite of passage for her...."*

Extract 3:



*"...it is also interesting that when H voiced her opinion about Donna I did not contradict her or offer up any views of my own. It is interesting to speculate why this was. Did I view her as correct because she is more experienced, was I embarrassed to offer up a naive interpretation or had I not yet realised the richness that can be derived from multiple perspectives about the same incident? "*

It is also important to consider the role of reflection-on-action and the interplay with reflection-in- action as described by Schon (1991). Earlier in this section I stressed the role of reflection-in-action and the ability to react flexibly in response to themes raised during the interview situation. However this type of reflection should work cyclically alongside reflection -on-action so that lessons learned from one interview can influence subsequent interviewer behaviour. Taylor (2010) refers to this as practical reflection which has the potential (as part of a reflective cycle) to lead to emancipatory reflection and change.

The analysis stage was enhanced by collaboration with my research supervisors who also coded transcripts and met to discuss emerging themes. As a novice researcher the supervisors were able to support me by advising on practicalities. However from a reflexive stance because their experiences as professionals differed from my own I felt the interpretation of data was enriched because I was not solely reliant on my own understanding and the experiences which had shaped me (Siltanen, Wills and Scobie, 2008).

## **7.7 Conclusion**

Bishop and Shepherd (2011) offer caution to the obsessive reflexive by suggesting that concerns over the incorporation of a reflexive approach could be seen as self-indulgent. They discourage the lofty assumption that because we are reflexive we are therefore automatically objective and so different from the participant.

However, Doyle (2013, p. 251) contests this argument by suggesting that reflexivity should be re-conceptualised as a 'thinking state of mind' which involves being able to take in information and re-evaluate the impact of self as a result. Doyle argues that reflexivity in research is not just about the details around interactions between the researcher and participants but rather that it underpins ontological or epistemological direction. McCabe and Holmes (2009, p. 1519) concur that reflexivity transcends a 'narcissistic self-check for bias' as it can be a way of gaining greater insight into the research process. Indeed my hope is that the transparency of reflexivity should add legitimacy to the findings.

In this chapter I have sought to justify my position as a reflexive researcher. This has been influenced by my concurrent clinical role and by my desire for my interaction with women and for study design to be pragmatically oriented and thus directly applicable to postnatal women. In the next chapter I present the findings from the quantitative phase of the study.

## **8 Quantitative Phase**

### **8.1 Introduction**

In this chapter I discuss the main findings from the quantitative part of the study. I will explain the data analysis plan and present the results. Regression analysis was used to ascertain the effects of the independent variables (maternal confidence, birth experience, past trauma, postnatal depression, affects, alexithymia, social support, attachment, self-efficacy and dyadic relationship) on the outcome variables (PTSD and general psychological health). I also tested a mediational model and discuss the implications and limitations of the findings. On the basis of the main findings a suggested model representing the main interactions of the predictors with PTSD and general health has been proposed.

### **8.2 Method**

The methods are fully described in Chapter six and only the salient points will be briefly covered here. Having gained the requisite ethical approval from the NHS and the research and development department of a NHS Trust in the West of England, 1176 women who had recently given birth at the consultant led and midwifery led unit and who were recovering on two postnatal wards were initially approached by maternity staff. Those who were interested in taking part in the study were left an information sheet with details about the study. They were visited by the researcher after they had read the sheet and were able to ask any questions that they might have had before consent was obtained. Subsequently consent was obtained from 938 women (79.8%). Three hundred and ninety eight women (42%) returned the

questionnaire; it is not known why the remainder did not. Of these 82 (20.7%) responses were discarded as the PTSD measure had not been completed. A further 105 questionnaires could not be used for analysis as other data sets were incomplete. Higgins, Deeks and Altman (2011) suggest that if data is not missing at random then cases should be excluded from analysis. This decision is justified by the assumption that these data may be missing because the participants were affected by depression, anxiety or PTSD and this directly impacted upon their ability to complete the questions. Thus by analysing only the available data from such participants findings may be biased, so in order to reduce such bias the 105 cases were excluded from analysis. This resulted in questionnaires from 211 women that were subjected to analysis. During the course of the study 65 women were identified with full or partial PTSD (16%) and were invited to take part in writing therapy. Eight women responded to the invitation. Only one woman provided a full data set: she wrote on all three occasions and completed the follow up questionnaire, the remaining participants were lost to follow up. Thus meaningful quantitative analysis was not possible for the data concerning writing therapy. The data regarding the woman who wrote on three occasions were subsequently used to form a case study (see chapter ten).

Analysis of demographic information showed that the majority of women were in the 30-39 age group (52%). The remainder were mainly in the 21-29 age group (42%). A small number of women were aged between 18 and 20 (6%). Most women were married (61%) and white British (90.5%). While 29% of women had been educated up to A level and 32.7% to undergraduate level or higher. However the majority were in the lower income category (59.3%). Sixty one percent of women were primiparous and 39% were multiparous. According to DSM IV classification (APA

1994) 36% had no PTSD, 48.3% had partial PTSD and 15.6% were identified as having full PTSD according to DSM IV classification. Forty five percent met criteria for intrusion, 19% for avoidance and 45% for arousal. Thus in this population intrusion and arousal were the main symptom clusters identified. Table 8.1 shows descriptive statistics for the measures used in the study.

**Table 8.1 Descriptive statistics for each measure**

| Measure/subscale           | Mean  | Standard deviation |
|----------------------------|-------|--------------------|
| PTSDB (Intrusion)          | 6.74  | 2.90               |
| PTSDC (avoidance)          | 9.37  | 3.84               |
| PTSDD (arousal)            | 7.81  | 4.04               |
| Past PTSD                  | 65.59 | 10.75              |
| Mat confidence             | 60.32 | 5.50               |
| Birth experience (pain)    | 23.30 | 10.82              |
| Birth experience (fear)    | 23.02 | 9.70               |
| Birth experience (support) | 20.05 | 10.04              |
| Self efficacy (imp)        | 31.38 | 4.61               |
| PANAS +ve                  | 37.17 | 7.78               |
| PANAS -ve                  | 19.50 | 7.83               |
| HRS                        | 35.56 | 5.23               |
| GHQ somatic                | 1.67  | 1.73               |
| GHQ anxiety                | 1.15  | 1.72               |
| GHQ social                 | 1.07  | 1.51               |
| GHQ depression             | 0.26  | 0.78               |
| TAS1                       | 14.9  | 5.71               |
| TAS2                       | 16.23 | 6.02               |
| TAS3                       | 12.13 | 2.90               |
| PSSFA                      | 23.28 | 6.29               |
| PSSSo                      | 25.30 | 5.53               |
| PSSFR                      | 22.41 | 6.42               |
| RSQ secure                 | 3.37  | 0.65               |
| RSQ fearful                | 2.29  | 0.92               |
| RSQ preoccupied            | 2.89  | 0.52               |
| RSQ dismissing             | 2.89  | 0.67               |
| PND                        | 5.81  | 6.10               |

As stated previously for 45% of women in the study intrusion and avoidance were the main symptom clusters for PTSD. However in terms of the mean score for avoidance it appears that for the 19% of women who were predominantly avoidant they were more highly avoidant than those who experienced mainly intrusion or

arousal symptoms. Also for those whose symptoms were predominantly arousal the standard deviation from the mean was relatively high compared with the mean score. This may suggest that although 45% of women experienced arousal symptoms the mean does not represent the data well as the scores are more spread out, thus the mean is a poor fit of the data. However this finding may not be surprising considering that women with a young baby may experience sleep loss due to arousal but their rating of the importance of the sleep loss may depend upon their perceptions about it, and this could affect the resultant range of scores. A larger mean could alternatively reflect the fact that it is a mean derived from seven questions rather than five.

In this population the descriptive statistics show that high scores were recorded for past PTSD as moderate to high scores are 49-80 also there is a relatively small standard deviation from the mean .

In many of the other measures used the mean and SD data indicate that the values obtained from this population were more dispersed and if plotted would create a flat distribution rather than a pointed curve (Field, 2009). Some of these values are discussed below.

The GHQ means and standard deviations may at first appear difficult to interpret but average scores were not high as seven questions contributed to each subscale and the scoring method was 0,0,1,1. This may indicate that there was a higher level of somatic symptoms experienced in the population than depressive symptoms, which may not be surprising since four weeks after the birth women were possibly still physically recovering. Additionally anxiety levels may have been higher than depression levels as the women may have felt naturally vigilant over their new baby and postnatal depression may not have developed.

In terms of the statistics for PND the mean score of 5.81 indicated that most women did not experience PND. However the relatively high standard deviation from the mean could indicate that there were several outliers (very high or very low scores), which represents a flat distribution with some women experiencing severe depressive symptoms and others experiencing no depressive symptoms.

For the birth experience subscales the means appeared very similar however for pain and support subscales in particular the standard deviation was very high thus the spread of scores was perhaps greater for these two subscales indicating a greater range of experience for pain and support.

### **8.3 Data Analysis Plan**

Descriptive statistics were used to describe the demographic details of the sample. Chi-square and MANOVA were used to compare the differences between participants regarding demographic variables. MANOVA was used to compare the mean differences of all the predictors, the GHQ-28 subscales and PTSD. Pearson correlations including point biserial correlation ( $r_{pb}$ ), were used to give an indication of the association between a group of confounding factors (demographic variables, baby feeding, sleeping, whether the baby needed to return to hospital, whether the pregnancy was planned) and PTSD symptoms and general health problems. Hierarchical multiple regression analyses were used to identify to what extent birth trauma, maternal confidence, PND, personality variables (including affects and alexithymia), coping and social support predicted PTSD symptoms and general psychological health after controlling for demographic factors.

The assumptions and diagnostics pertaining to multivariate analysis were examined. Due to non-normality, the variable of negative affect was subjected to a log-transformation and the variables of maternal confidence, dyadic relationship (HRS), past PTSD, postnatal depression (PND), self-efficacy (SES) and social support (MSPSS) were subjected to a square root transformation. During the exploration of diagnostics ten outliers were detected for PTSD and three outliers were detected for general psychological health (Mahalanobis > 3 SD). Following exploration and transformation, assumptions relating to multivariate normality, linearity and homoscedasticity were met.

Table 8.2 shows percentage and chi squared results for the main demographic variables.



## 8.4 Results

Table 8.2 shows that there were no significant differences between the no PTSD, partial PTSD and full PTSD groups for age, marital status, educational level, income level or ethnicity. However there were significant differences between groups in terms of whether the pregnancy was planned and if the baby was sleeping as expected.

**Table 8.2 Demographic differences between diagnostic groups**

|   | No PTSD |      | Partial PTSD |      | Full PTSD |      | $\chi^2$          | p                 |
|---|---------|------|--------------|------|-----------|------|-------------------|-------------------|
|   | n       | %    | n            | %    | n         | %    |                   |                   |
|   | 76      | 36   | 102          | 48.3 | 33        | 15.6 |                   |                   |
| Age 18-20                               | 1       | 1.3  | 3            | 2.9  | 1         | 3    | 1.60              | 0.45              |
| Age 21-29                               | 31      | 40.8 | 41           | 40.2 | 17        | 51.5 |                   |                   |
| Age 30-39                               | 42      | 55.3 | 53           | 52   | 15        | 45.5 |                   |                   |
| Age 40-49                               | 2       | 2.6  | 5            | 4.9  | 0         | 0    |                   |                   |
|   |         |      |              |      |           |      |                   |                   |
| M. Status                               | 4       | 5.3  | 8            | 7.8  | 3         | 9.1  | 0.67 <sup>a</sup> | 0.72 <sup>a</sup> |
| Single                                  |         |      |              |      |           |      |                   |                   |
| Married                                 | 46      | 60.5 | 63           | 61.8 | 20        | 60.6 |                   |                   |
| Cohabiting                              | 26      | 34.2 | 31           | 30.4 | 10        | 30.3 |                   |                   |
| Education                               | 2       | 2.6  | 7            | 6.9  | 1         | 3    | 1.45              | 0.48              |
| No GCSEs                                |         |      |              |      |           |      |                   |                   |
| GCSEs                                   | 19      | 25   | 21           | 20.6 | 11        | 33.3 |                   |                   |
| A Levels                                | 15      | 19.7 | 28           | 27.5 | 8         | 24.2 |                   |                   |
| Degree                                  | 32      | 42.1 | 36           | 35.3 | 13        | 39.4 |                   |                   |
| Masters                                 | 5       | 6.6  | 10           | 9.8  | 0         | 0    |                   |                   |
| Doctorate                               | 1       | 1.3  | 0            | 0    | 0         | 0    |                   |                   |
| Occupation                              | 13      | 17.1 | 25           | 24.5 | 13        | 39.4 | 3.08              | 0.22              |
| Manual                                  |         |      |              |      |           |      |                   |                   |
| Clerical                                | 25      | 32.9 | 22           | 21.6 | 8         | 24.2 |                   |                   |
| Middle manager                          | 31      | 40.8 | 49           | 48   | 12        | 36.4 |                   |                   |
| Doctor/lawyer                           | 7       | 9.2  | 6            | 5.9  | 0         | 0    |                   |                   |
| First baby (primiparous)                | 52      | 68.4 | 58           | 56.9 | 18        | 54.5 | 3.05              | 0.07              |
| Second or subsequent baby (Multiparous) | 24      | 31.6 | 44           | 43.1 | 15        | 45.5 |                   |                   |
| Pregnancy was planned                   | 68      | 89.5 | 80           | 78.4 | 21        | 63.6 | 9.98              | 0.01              |
| Pregnancy unplanned                     | 8       | 10.5 | 22           | 21.6 | 12        | 36.4 |                   |                   |
| Partner present at birth                | 75      | 98.7 | 94           | 92.2 | 30        | 90.9 | 4.30              | 0.12              |

|                              |    |      |    |      |    |      |      |      |
|------------------------------|----|------|----|------|----|------|------|------|
| Baby gained wt as expected   | 73 | 96.1 | 95 | 93.1 | 33 | 100  | 2.17 | 0.34 |
| Baby sleeping as expected    | 74 | 97.4 | 90 | 88.2 | 27 | 81.8 | 7.69 | 0.02 |
| Baby feeding as expected     | 71 | 93.4 | 96 | 94.1 | 29 | 87.9 | 1.52 | 0.47 |
| Needed to return to hospital | 12 | 15.8 | 24 | 23.5 | 6  | 19.4 | 1.73 | 0.42 |
| Normal                       | 32 | 42.1 | 36 | 35.3 | 13 | 39.4 | 1.22 | 0.88 |
| Assisted                     | 10 | 13.2 | 10 | 9.8  | 5  | 15.2 |      |      |
| C. Section                   | 20 | 26.3 | 31 | 30.4 | 10 | 30.3 |      |      |

$\alpha$ - Fisher exact test used for this variable as number of subjects in some categories less than 5. Chi-squared tests were carried out on the following dummy variables age; 18-30 vs 30 above, marital status; married vs not married, education; university vs no university, income; low vs medium and high income and for birth type; normal vs Caesarean section.

Table 8.3 shows the correlation results between demographic variables, PTSD and general and psychological health. Due to the large number of correlations that might increase the likelihood of committing a Type 1 error, Bonferroni adjustment was performed to adjust the level of significance. The new level of 0.002 was used.

Significant correlations were found for whether the pregnancy was planned, whether the partner was at the birth and whether the baby slept as expected. Additionally, correlation was found for whether the baby fed as expected and general health. Where numbers have not been recorded the data were obtained from 211 participants. Point biserial correlations were used for the dichotomous variables as there was discrete dichotomy (all of the above).

**Table 8.3 Association between demographic information, PTSD and GHQ**

|                                | <b>PTSD</b> | <b>GHQ</b> |
|--------------------------------|-------------|------------|
| Age                            | -0.05       | 0.01       |
| Marital status                 | -0.11       | -0.11      |
| Education                      | -0.08       | -0.06      |
|                                | 209         | 209        |
| Income level                   | -0.13       | -0.06      |
| Planned pregnancy              | 0.26**      | 0.24**     |
| Partner at birth               | 0.19**      | 0.15*      |
| Baby gained weight as expected | 0.05        | 0.11       |
|                                | 210         | 210        |
| Baby slept as expected         | 0.32**      | 0.44**     |
| Baby fed as expected           | 0.11        | 0.26**     |
| Baby returned to hospital      | -0.03       | -0.10      |
|                                | 208         | 208        |
| Birth type                     | 0.06        | -0.04      |
|                                | 167         | 167        |

\*\*Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

#### **8.4.1 The relationship between demographic variables, PTSD and general health**

It can be seen from table 8.2 that the following variables were significantly correlated with PTSD; whether the pregnancy was planned, and whether the baby slept as expected. The same variables were also significantly correlated with GHQ but with the addition of whether the baby fed as expected.

#### **8.4.2 Correlation Results**

Table 8.4 shows the correlation of selected demographic variables and predictor variables with PTSD and GHQ. Correlation with PTSD and GHQ was significant at the 0.0002 level (after conducting Bonferroni adjustment) for all variables apart from baby feeding and the fear component of birth experience for the outcome variable PTSD. However for the outcome variable GHQ the fear and the support component of birth experience were not significant. Additionally past PTSD was significant at the 0.05 level for PTSD but not significant for GHQ. The preoccupied

attachment style did not significantly correlate with either PTSD or GHQ. However the dismissing attachment style correlated at the 0.0002 level with PTSD and at the 0.05 level with GHQ.

**Table 8.4 Correlation of independent variables with dependent variables**

|    | 1                  | 2                  | 3                  | 4                  | 5                  | 6                  | 7                  | 8                  | 9                 | 10                 | 11                 | 12                 | 13                 | 14                 | 15                 | 16                 | 17                 | 18                 | 19    | 20                 | 21 |  |
|----|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------|--------------------|----|--|
| 1  | 1                  |                    |                    |                    |                    |                    |                    |                    |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 2  | .641 <sup>†</sup>  | 1                  |                    |                    |                    |                    |                    |                    |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 3  | .263 <sup>†</sup>  | .241 <sup>†</sup>  | 1                  |                    |                    |                    |                    |                    |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 4  | .317 <sup>†</sup>  | .437 <sup>†</sup>  | .244 <sup>†</sup>  | 1                  |                    |                    |                    |                    |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 5  | .107               | .255 <sup>†</sup>  | .001               | .288 <sup>†</sup>  | 1                  |                    |                    |                    |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 6  | -.263 <sup>†</sup> | -.257 <sup>†</sup> | -.215 <sup>†</sup> | -.128              | -.072              | 1                  |                    |                    |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 7  | -.253 <sup>†</sup> | -.411 <sup>†</sup> | -.144 <sup>*</sup> | -.234 <sup>†</sup> | -.156 <sup>*</sup> | .086               | 1                  |                    |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 8  | .289 <sup>†</sup>  | .308 <sup>†</sup>  | .237 <sup>†</sup>  | .130               | .039               | -.184 <sup>†</sup> | -.266 <sup>†</sup> | 1                  |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 9  | .156 <sup>*</sup>  | .132               | .034               | .019               | .013               | -.071              | -.194 <sup>†</sup> | .280 <sup>†</sup>  | 1                 |                    |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 10 | .301 <sup>†</sup>  | .148 <sup>*</sup>  | .178 <sup>†</sup>  | .073               | -.104              | .026               | -.148 <sup>*</sup> | .307 <sup>†</sup>  | .374 <sup>†</sup> | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 11 | -.196 <sup>*</sup> | -.145              | -.063              | -.009              | -.008              | .143 <sup>*</sup>  | .030               | -.043              | -.091             | -.115              | 1                  |                    |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 12 | .477 <sup>†</sup>  | .506 <sup>†</sup>  | .284 <sup>†</sup>  | .295 <sup>†</sup>  | .108               | -.094              | -.260 <sup>†</sup> | .228 <sup>†</sup>  | .111              | .259 <sup>†</sup>  | -.084              | 1                  |                    |                    |                    |                    |                    |                    |       |                    |    |  |
| 13 | .561 <sup>†</sup>  | .542 <sup>†</sup>  | .209 <sup>†</sup>  | .311 <sup>†</sup>  | .062               | -.534 <sup>†</sup> | -.323 <sup>†</sup> | .325 <sup>†</sup>  | .212 <sup>†</sup> | .177 <sup>*</sup>  | -.064              | .401 <sup>†</sup>  | 1                  |                    |                    |                    |                    |                    |       |                    |    |  |
| 14 | -.492 <sup>†</sup> | -.582 <sup>†</sup> | -.141 <sup>*</sup> | -.252 <sup>†</sup> | -.151 <sup>†</sup> | .296 <sup>†</sup>  | .501 <sup>†</sup>  | -.295 <sup>†</sup> | -.113             | -.139 <sup>*</sup> | -.008              | -.338 <sup>†</sup> | -.505 <sup>†</sup> | 1                  |                    |                    |                    |                    |       |                    |    |  |
| 15 | .540 <sup>†</sup>  | .576 <sup>†</sup>  | .229 <sup>†</sup>  | .216 <sup>†</sup>  | .139 <sup>*</sup>  | -.264 <sup>†</sup> | -.286 <sup>†</sup> | .327 <sup>†</sup>  | .159 <sup>*</sup> | .209 <sup>†</sup>  | -.133              | .524 <sup>†</sup>  | .555 <sup>†</sup>  | -.420 <sup>†</sup> | 1                  |                    |                    |                    |       |                    |    |  |
| 16 | -.326 <sup>†</sup> | -.324 <sup>†</sup> | -.234 <sup>†</sup> | -.203 <sup>†</sup> | -.019              | .167 <sup>*</sup>  | .383 <sup>†</sup>  | -.243 <sup>†</sup> | -.059             | -.176 <sup>*</sup> | .060               | -.295 <sup>†</sup> | -.377 <sup>†</sup> | .410 <sup>†</sup>  | -.418 <sup>†</sup> | 1                  |                    |                    |       |                    |    |  |
| 17 | -.407 <sup>†</sup> | -.493 <sup>†</sup> | -.202 <sup>†</sup> | -.305 <sup>†</sup> | -.130              | .224 <sup>†</sup>  | .322 <sup>†</sup>  | -.284 <sup>†</sup> | -.058             | -.030              | .061               | -.273 <sup>†</sup> | -.533 <sup>†</sup> | .412 <sup>†</sup>  | -.490 <sup>†</sup> | .300 <sup>†</sup>  | 1                  |                    |       |                    |    |  |
| 18 | .253 <sup>†</sup>  | .201               | .096               | .068               | .045               | -.132              | .100               | .119               | -.031             | -.023              | -.239 <sup>†</sup> | .117               | .251 <sup>†</sup>  | -.082              | .200 <sup>†</sup>  | .014               | -.345 <sup>†</sup> | 1                  |       |                    |    |  |
| 19 | .046               | .001               | -.068              | -.018              | .103               | .041               | -.070              | -.083              | .069              | .046               | -.022              | .016               | -.013              | -.049              | .091               | -.075              | .124               | -.325 <sup>†</sup> | 1     |                    |    |  |
| 20 | .457 <sup>†</sup>  | .476 <sup>†</sup>  | .255 <sup>†</sup>  | .295 <sup>†</sup>  | .088               | -.326 <sup>†</sup> | -.127              | .247 <sup>†</sup>  | .109              | .101               | -.198 <sup>†</sup> | .242 <sup>†</sup>  | .554 <sup>†</sup>  | -.370 <sup>†</sup> | .472 <sup>†</sup>  | -.199 <sup>†</sup> | -.657 <sup>†</sup> | .614 <sup>†</sup>  | -.099 | 1                  |    |  |
| 21 | -.286 <sup>†</sup> | -.243 <sup>†</sup> | -.260 <sup>†</sup> | -.151 <sup>*</sup> | -.085              | .311 <sup>†</sup>  | .148 <sup>*</sup>  | -.137 <sup>*</sup> | -.064             | .005               | .147 <sup>*</sup>  | -.145 <sup>*</sup> | -.418 <sup>†</sup> | .308 <sup>†</sup>  | -.345 <sup>†</sup> | .189 <sup>†</sup>  | .372 <sup>†</sup>  | -.208 <sup>†</sup> | .039  | -.413 <sup>†</sup> | 1  |  |

†. Correlation is significant at the 0.0002 level (2-tailed) after Bonferroni correction.

\*. Correlation is significant at the 0.05 level (2-tailed).

1=PTSD, 2=GHQ-28, 3=Planning pregnancy, 4= Baby sleeping as expected, 5= Baby feeding as expected, 6= Dyadic satisfaction, 7=Maternal confidence, 8= Birth experience (pain), 9= Birth experience (fear), 10= Birth experience (support), 11= Past PTSD, 12= PND, 13= Alexithymia, 14= Positive affects, 15= Negative affects, 16= Self-efficacy, 17= Attachment (secure), 18= Attachment (dismissing), 19= Attachment (pre-occupied), 20= Attachment (fearful), 21= Perceived social support.

### **8.4.3 Differences between groups for predictor variables**

Table 8.5 shows MANOVA analyses. The MANOVA analyses revealed significant differences between groups for the following variables; maternal confidence, birth experience, past PTSD, alexithymia, postnatal depression, positive and negative affects, self-efficacy and general and psychological health. For attachment significant differences were found for the secure, dismissing and fearful subscales but not for the preoccupied subscale.

**Table 8.5 Differences between diagnostic groups for predictor variables**

| Independent Variable    | No PTSD |       | Partial PTSD |       | Full PTSD |       | F     | $p$  | $\eta^2$ |
|-------------------------|---------|-------|--------------|-------|-----------|-------|-------|------|----------|
|                         | N       | %     | n            | %     | n         | %     |       |      |          |
|                         | 76      | 36    | 102          | 48.3  | 33        | 15.6  |       |      |          |
|                         | Mean    | SD    | Mean         | SD    | Mean      | SD    |       |      |          |
| Maternal Confidence     | 61.21   | 5.21  | 60.44        | 5.02  | 57.94     | 6.83  | 4.23  | 0.12 | 0.04     |
| Birth experience (pain) | 20.25   | 8.86  | 23.11        | 10.91 | 30.82     | 11.35 | 12.12 | 0.00 | 0.11     |
| BE (fear)               | 22.39   | 9.22  | 22.17        | 10.33 | 27.06     | 7.81  | 3.50  | 0.03 | 0.03     |
| BE (support)            | 16.3    | 10.06 | 21.34        | 9.72  | 24.7      | 8.05  | 10.55 | 0.00 | 0.09     |
| Past PTSD               | 66.66   | 11.22 | 66.19        | 9.91  | 61.27     | 11.45 | 3.26  | 0.04 | 0.03     |
| PND-                    | 8.47    | 4.42  | 10.54        | 5.28  | 14.76     | 4.83  | 18.81 | 0.00 | 0.15     |
| Self-efficacy           | 32.95   | 3.55  | 31.02        | 5.01  | 28.90     | 4.21  | 10.35 | 0.00 | 0.09     |
| Relationship scales     |         |       |              |       |           |       |       |      |          |
| RSQ S                   | 3.54    | 0.53  | 3.38         | 0.66  | 2.97      | 0.71  | 9.41  | 0.00 | 0.08     |
| RSQ F                   | 1.99    | 0.77  | 2.28         | 0.88  | 3.02      | 0.99  | 16.33 | 0.00 | 0.14     |
| RSQ P                   | 2.91    | 0.42  | 2.85         | 0.55  | 2.97      | 0.60  | 0.71  | 0.49 | 0.01     |
| RSQ D                   | 2.77    | 0.61  | 2.86         | 0.67  | 3.23      | 0.71  | 5.82  | 0.00 | 0.05     |
| PSS                     | 72.56   | 18.12 | 71.74        | 13.76 | 65.72     | 13.20 | 2.44  | 0.09 | 0.02     |
| PANAS +                 | 40.27   | 6.07  | 36.72        | 7.69  | 31.39     | 8.13  | 17.73 | 0.00 | 0.15     |
| PANAS -                 | 16.67   | 5.82  | 19.21        | 7.61  | 26.88     | 8.03  | 24.04 | 0.00 | 0.19     |
| HRS +                   | 36.03   | 5.36  | 36.22        | 4.40  | 32.40     | 6.20  | 7.62  | 0.00 | 0.07     |
| TAS1                    | 13.20   | 4.53  | 14.43        | 5.08  | 20.24     | 6.87  | 21.78 | 0.00 | 0.17     |
| TAS2                    | 14.84   | 5.15  | 15.49        | 5.42  | 21.70     | 6.78  | 19.23 | 0.00 | 0.16     |
| TAS3                    | 12.05   | 3.00  | 11.98        | 2.89  | 12.76     | 2.73  | 0.93  | 0.40 | 0.01     |
| GHQ SOMATIC             | 1.13    | 1.54  | 1.68         | 1.60  | 2.91      | 1.93  | 13.65 | 0.00 | 0.12     |
| GHQ ANXIETY             | 0.46    | 1.05  | 1.12         | 1.51  | 2.82      | 2.38  | 26.94 | 0.00 | 0.21     |
| GHQ SOCIAL              | 0.64    | 0.98  | 1.03         | 1.32  | 2.18      | 2.33  | 13.51 | 0.00 | 0.12     |
| GHQ DEPRESSION          | 0.14    | 0.39  | 0.09         | 0.18  | 0.45      | 1.64  | 9.64  | 0.00 | 0.10     |

$p < 0.02$

#### 8.4.4 Pairwise comparisons

Pairwise comparisons showed that the full PTSD group reported significantly less maternal confidence, and a less strong dyadic relationship, but a significantly more negative birth experience, past PTSD score, and alexithymia level than the no PTSD group. The full PTSD group reported significantly less self-efficacy but more postnatal depression and negative affects than the partial PTSD group. The full PTSD group

reported more significance for the following attachment subscales S (secure) D (dismissing) and F (fearful) than the no PTSD group. The full PTSD group reported significantly more significance for the following general and psychological health subscales; somatic, social and depression than no PTSD and the full PTSD group reported more significance for the anxiety subscale than for partial PTSD.

#### **8.4.5 Regression results**

To establish the relationship between the main predictors variables (dyadic relationship, maternal confidence, birth experience, past PTSD , PND, alexithymia, affects, attachment and social support) and the psychological outcomes (PTSD and general and psychological health) multiple hierarchical regression was used. Due to the significant correlations between planning the pregnancy, baby sleeping as expected and baby feeding as expected and the outcome variables PTSD and GHQ these variables were controlled for in the regression (see Table 8.5). Broadly, the four blocks were chosen such that block one represented variables which could be considered as confounding factors (planning the pregnancy, baby sleeping, baby feeding, dyadic relationship and maternal confidence). Block two consisted of variables associated with the severity of past trauma and postnatal depression (birth experience, past PTSD and PND). Block three comprised personality variables (alexithymia and affects) and the forth block comprised variables associated with coping and support (self-efficacy, attachment and social support).

Table 8.6 shows multiple hierarchical regression in four blocks for the above variables and GHQ.



**Table 8.6 Regression for GHQ**

| Block               | Variable            | Beta              | Significance |      |
|---------------------|---------------------|-------------------|--------------|------|
| 1                   | Pregnancy planned   | 0.17              | 0.01         |      |
|                     | Baby Sleeping       | 0.21              | 0.00         |      |
|                     | Baby feeding        | 0.27              | 0.00         |      |
|                     | Dyadic relationship | 0.16              | 0.09         |      |
|                     | Maternal confidence | 0.11              | 0.08         |      |
|                     |                     |                   |              |      |
| 2                   | Pregnancy planned   | 0.07              | 0.27         |      |
|                     | Baby Sleeping       | 0.18              | 0.01         |      |
|                     | Baby feeding        | 0.25              | 0.00         |      |
|                     | Dyadic relationship | 0.15              | 0.01         |      |
|                     | Maternal confidence | 0.04              | 0.58         |      |
|                     | Birth experience    | 0.13              | 0.04         |      |
|                     | Past PTSD           | 0.10              | 0.09         |      |
|                     | PND                 | 0.30              | 0.00         |      |
|                     |                     |                   |              |      |
| 3                   | Pregnancy planned   | 0.62              | 0.26         |      |
|                     | Baby Sleeping       | 0.13              | 0.03         |      |
|                     | Baby feeding        | 0.22              | 0.00         |      |
|                     | Dyadic relationship | -0.03             | 0.61         |      |
|                     | Maternal confidence | -0.05             | 0.39         |      |
|                     | Birth experience    | 0.01              | 0.90         |      |
|                     | Past PTSD           | 0.14              | 0.01         |      |
|                     | PND                 | 0.14              | 0.02         |      |
|                     | Alexithymia         | 0.20              | 0.00         |      |
|                     | Positive affects    | -0.33             | 0.00         |      |
|                     | Negative affects    | 0.09              | 0.13         |      |
|                     |                     |                   |              |      |
|                     | 4                   | Pregnancy planned | 0.09         | 0.12 |
| Baby Sleeping       |                     | 0.13              | 0.03         |      |
| Baby feeding        |                     | 0.23              | 0.00         |      |
| Dyadic relationship |                     | -0.02             | 0.72         |      |
| Maternal confidence |                     | -0.05             | 0.41         |      |
| Birth experience    |                     | -0.00             | 0.95         |      |
| Past PTSD           |                     | 0.17              | 0.00         |      |
| PND                 |                     | 0.13              | 0.04         |      |
| Alexithymia         |                     | 0.25              | 0.00         |      |
| Positive affects    |                     | -0.36             | 0.00         |      |
| Negative affects    |                     | 0.13              | 0.05         |      |
| Self-efficacy       |                     | -0.06             | 0.32         |      |
| Attachment          |                     | -0.07             | 0.26         |      |
| Social support      |                     | 0.13              | 0.14         |      |

*p*<0.05

In terms of general health problems, the results showed that model 1 (see table 8.6) explained a significant proportion of the variance [ $F(5, 19) = 14.00, p < 0.01$ , adjusted  $R^2 = 0.25$ ] and that it explained 25% of the variance. After controlling for the variables in model 1, model 2 improved significantly the prediction of the severity of general health problems [ $F(3, 20) = 11.89, p < 0.01, R^2 \text{ change} = 0.12$ ]. It explained 35% of the variance (adjusted  $R^2 = 0.36$ ). Controlling for the variables in models 1 and 2, model 3 improved the prediction further [ $F(3, 19) = 18.00, p < 0.01, R^2 \text{ change} = 0.14$ ] which explained 49% of the variance (adjusted  $R^2 = 0.49$ ). However, the overall model 4 did not make a significant contribution to the prediction [ $F(3, 18) = 1.62, ns, R^2 \text{ change} = 0.01$ ]. Regression coefficients showed that alexithymia and affects made the most significant contribution to the model after controlling for the variables in models 1 and 2. Self-efficacy, attachment and social support were not the significant predictors.

#### **8.4.6 Explanation of positive and negative variance**

Thus for increased positive affect there is reduced score for GHQ (positive affect seems to protect against poor psychological health and PTSD) and for increased maternal confidence a reduced link with PTSD (higher confidence seems to protect against PTSD).

Table 8.7 shows multiple hierarchical regression in four blocks for the selected demographic variables, predictor variables and PTSD.

**Table 8.7 Regression for PTSD**

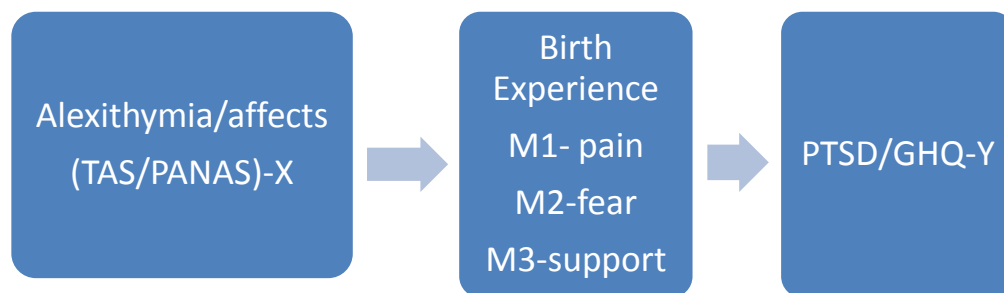
| Block | Variable            | Beta  | Significance |
|-------|---------------------|-------|--------------|
| 1     | Pregnancy planned   | 0.22  | 0.00         |
|       | Baby sleeping       | 0.10  | 0.14         |
|       | Dyadic relationship | 0.16  | 0.02         |
|       | Maternal confidence | 0.14  | 0.04         |
|       |                     |       |              |
| 2     | Pregnancy planned   | 0.10  | 0.13         |
|       | Baby sleeping       | 0.08  | 0.20         |
|       | Dyadic relationship | 0.17  | 0.01         |
|       | Maternal confidence | 0.01  | 0.92         |
|       | Birth Experience    | 0.26  | 0.00         |
|       | Past PTSD           | 0.05  | 0.39         |
|       | PND                 | 0.33  | 0.00         |
|       |                     |       |              |
| 3     | Pregnancy planned   | 0.09  | 0.12         |
|       | Baby sleeping       | 0.03  | 0.56         |
|       | Dyadic relationship | -0.05 | 0.44         |
|       | Maternal confidence | -0.13 | 0.04         |
|       | Birth Experience    | 0.13  | 0.03         |
|       | Past PTSD           | 0.10  | 0.06         |
|       | PND                 | 0.13  | 0.04         |
|       | Alexithymia         | 0.27  | 0.00         |
|       | Positive affect     | -0.23 | 0.00         |
|       | Negative affect     | 0.24  | 0.00         |
|       |                     |       |              |
| 4     | Pregnancy planned   | 0.08  | 0.16         |
|       | Baby sleeping       | 0.03  | 0.62         |
|       | Dyadic relationship | -0.05 | 0.41         |
|       | Maternal confidence | -0.13 | 0.04         |
|       | Birth Experience    | 0.14  | 0.02         |
|       | Past PTSD           | 0.09  | 0.13         |
|       | PND                 | 0.53  | 0.04         |
|       | Alexithymia         | 0.25  | 0.00         |
|       | Positive affect     | -0.21 | 0.00         |
|       | Negative affect     | 0.22  | 0.00         |
|       | Self-efficacy       | 0.89  | 0.15         |
|       | Attachment          | 0.07  | 0.26         |
|       | Social Support      | -0.03 | 0.65         |

*p*<0.05

With regard to PTSD, the results showed that model 1 (see table 8.7) explained a significant proportion of the variance [ $F(4,195) = 7.11, p < 0.01$ ] which explained almost 11% of the variance (adjusted  $R^2 = 0.109$ ). After controlling for model 1, model 2 improved significantly the prediction of PTSD [ $F(3,192) = 17.40, p < 0.01, R^2 \text{ change} = 0.19$ ] in that it explained 29% of the variance (adjusted  $R^2 = 0.30$ ). Controlling for models 1 and 2, model 3 improved the model further [ $F(3,189) = 19.77, p < 0.01, R^2 \text{ change} = 0.16$ ] with 45% of the variance explained (report adjusted  $R^2 = 0.45$ ). The overall model did not explain a significant proportion of the variance [ $F(3,186) = 1.24, ns, R^2 \text{ change} = 0.01$ ]. Similar to the regression results for the general health problems, regression coefficients also showed that alexithymia and affects were the significant predictors after controlling for the variables in models 1 and 2. Self-efficacy, attachment and social support were again not the significant predictors.

#### **8.4.7 Mediation model**

Birth experience may mediate the relationship between personality and outcomes. It was postulated that a relationship may exist between alexithymia and PTSD or reduced psychological health. For the birth situation it was thought that those with alexithymic tendencies may find emotion regulation difficult around birth and this could impact upon PTSD. In order to test for this mediation analysis was performed (see Figure 8.1 for proposed model).



**Figure 8.1 Mediational model**

In order to test this, a mediation package ‘PROCESS’ developed by Hayes (2013) was used. During analysis maternal confidence and PND, were controlled for (as they were also found to be significant). PROCESS uses bias-corrected bootstrapping to generate confidence intervals (Preacher and Hayes, 2008) which address the problem of bias resulting from the asymmetric and non-normal sampling distributions of an indirect effect (MacKinnon et al., 2004). Point estimates and confidence intervals (95%) were estimated for the indirect effects. The point estimate is considered to be significant when the confidence interval does not contain zero. These strategies would control for the possible influence of covariates in the model, in this case maternal confidence and PND.

Table 8.8 shows that birth experience did not mediate the relationship between alexithymia and PTSD.

**Table 8.8 Indirect effect of X (Alexithymia) on Y (PTSD) via Birth experience**

| <b>M</b>                     | <b>BootLLCI</b> | <b>BootULCI</b> |
|------------------------------|-----------------|-----------------|
| Total                        | -0.12           | 0.05            |
| Birth experience (pain)M1    | -0.01           | 0.04            |
| Birth experience (fear)M2    | -0.03           | 0.01            |
| Birth experience (support)M3 | -0.01           | 0.04            |

Table 8.9 shows again that birth experience did not mediate the relationship between affects and PTSD.

**Table 8.9 Indirect effect of X (Affects) on Y (PTSD) via Birth experience**

| <b>M</b>                     | <b>Positive affect</b> |                 | <b>Negative affect</b> |                 |
|------------------------------|------------------------|-----------------|------------------------|-----------------|
|                              | <b>BootLLCI</b>        | <b>BootULCI</b> | <b>BootLLCI</b>        | <b>BootULCI</b> |
| Total                        | -0.08                  | 0.03            | -0.82                  | 4.53            |
| Birth experience (pain)M1    | -0.06                  | 0.01            | -0.18                  | 4.32            |
| Birth experience (fear)M2    | -0.01                  | 0.01            | -0.82                  | 0.90            |
| Birth experience (support)M3 | -0.04                  | 0.03            | -1.17                  | 1.88            |

Table 8.10 shows that the effect of alexithymia on general and psychological health is mediated by the pain component of the birth experience.

**Table 8.10 Indirect effect of X (Alexithymia) on Y (GHQ) via Birth Experience**

| <b>M</b>                     | <b>BootLLCI</b> | <b>BootULCI</b> |
|------------------------------|-----------------|-----------------|
| Total                        | -0.00           | 0.02            |
| Birth experience (pain)M1    | 0.00            | 0.026           |
| Birth experience (fear)M2    | -0.01           | 0.01            |
| Birth experience (support)M3 | -0.01           | 0.00            |

Table 8.11 shows that the effect of affects on general and psychological health is mediated by the pain component of the birth experience. Thus positive affect may be protective against poorer health and negative affects regarding the pain of the birth could contribute towards poorer health.

**Table 8.11 Indirect effect of X (Affects) on Y (GHQ) via Birth Experience**

| <b>M</b>                     | <b>Positive affect</b> |                 | <b>Negative affect</b> |                 |
|------------------------------|------------------------|-----------------|------------------------|-----------------|
|                              | <b>BootLLCI</b>        | <b>BootULCI</b> | <b>BootLLCI</b>        | <b>BootULCI</b> |
| Total                        | -0.03                  | 0.00            | 0.14                   | 1.95            |
| Birth experience (pain)M1    | -0.03                  | -0.00           | 0.24                   | 1.96            |
| Birth experience (fear)M2    | -0.01                  | 0.00            | -0.24                  | 0.59            |
| Birth experience (support)M3 | -0.00                  | 0.01            | -0.28                  | 0.22            |

## **8.5 Discussion**

### **8.5.1 Summary of main findings**

In this study of 211 postnatal women, 15.6% met the diagnostic criteria for full PTSD and 48.3% were found to have met at least one of the symptom clusters for PTSD (according to DSM IV classification) (APA,1994). Most demographic variables did not relate to PTSD severity or general and psychological health outcome apart from planning the pregnancy and whether the baby slept as expected. However, these two variables and whether the baby fed as expected were significantly associated with general and psychological health. The results of MANOVA on a range of potential predictors showed that all of the following significantly correlated with PTSD; maternal confidence, birth experience, past PTSD, alexithymia, postnatal depression, negative affect, reduced self-efficacy, insecure attachment and poorer general and psychological health. For attachment, significant differences were found for the

secure, dismissing and fearful subscales but not for the preoccupied subscale. For increased positive affect a reduced score for GHQ was found (positive affect seems to protect against poor psychological health and PTSD) and for increased maternal confidence a reduced link with PTSD was found (higher confidence seems to protect against PTSD). Hierarchical multiple regression in four blocks showed that most of the variance for both PTSD and GHQ could be explained by the alexithymia and affects variables.

Mediational analysis demonstrated that the pain component of birth experience mediated the path between alexithymia and positive and negative affect (PANAS+/-/TAS) and general psychological health (GHQ) but no mediational role was found for pain on the effect of these variables on PTSD.

### **8.5.2 PTSD and demographics**

In comparison with results reported by other authors the PTSD rate may seem high (Grekin and O'Hara, 2014) there are several explanations for this. Often figures are reported for a general population of women rather than those who have just given birth. However, there are other explanations for the high rate reported. Firstly the majority of women recruited had needed to stay in the postnatal ward for at least one night so it was more likely that either the woman or her baby had required additional help and so they may have been a more vulnerable population with associated maternal morbidity. Secondly, in order to meet one of the symptom cluster criteria for PTSD (re-experiencing the trauma e.g. nightmares and flashbacks, persistent avoidance of reminders e.g. loss of memory of the event and hyperarousal e.g. irritability, difficulty concentrating APA, 1994) a woman would, for example need to report



increased sleep disturbance. However, sleep disturbance would not be unusual for a mother with a very young baby. Thus it is possible that a higher number of participants may be likely to report partial PTSD symptoms than in studies using participants with PTSD resulting from an alternative trauma.

In terms of demographic variables the findings in the current study contrast with other work (Soet, Brack and Dilorio, 2003) which suggests that PTSD is correlated with obstetric events. No difference was seen between groups for type of birth however, as already mentioned, the participants were mainly women who had needed to stay in hospital for at least one night regardless of birth type. NHS maternity statistics (2012-13) show that in England 69.9% of all deliveries involved women staying in hospital for two days or less and only 10.4% of women stayed in for five days or more. Thus it is possible that by only visiting the hospital three times a week to recruit women to the study those who stayed for a shorter period of time, and may have therefore had less postnatal complications, were less likely to have been recruited (see page 174 for details of recruitment). Also it is possible that those experiencing additional complications (such as an infection, post-partum haemorrhage, neonatal jaundice or initial breastfeeding difficulties) would stay in hospital longer and be more likely to have been recruited to the study. These difficulties may not necessarily have been captured in the data and this may have made them appear as a less diverse group. An unplanned pregnancy was found to predict greater psychological morbidity and higher PTSD scores. This finding is unsurprising considering the findings of Redshaw and Henderson (2013), who reported an unplanned pregnancy as a potential risk factor for antenatal depression. Thus those who had an unplanned pregnancy may have been experiencing lower levels of mental

health antenatally and were potentially at risk of further morbidity (Soet, Brack and Dilorio, 2003).

Perceived problems with the baby sleeping predicted both PTSD and reduced psychological health. Also, perceived problems with baby feeding predicted reduced psychological health. A relationship between the perception of the sleeping and feeding patterns of the baby could be explained in two ways. Firstly women who are experiencing psychological morbidity may feel that their baby is more demanding: secondly, those with babies who are more demanding than the women originally imagined may be vulnerable to PTSD and depression. Hurley et al. (2008) found that maternal stress and depression was associated with a non-responsive feeding style and Dennis and McQueen (2007) found that infant feeding did not predict PND; however those with PND were significantly more likely to discontinue breastfeeding or be unsatisfied with feeding. This would seem to suggest that the feeding difficulty may not relate to PND but if women have PND they perceive feeding as more difficult. Alternately Coulthard and Harris (2003) suggest that in the longer term mothers who respond to infant feeding problems with anxiety may prolong or worsen the problem. The issue here is complex, but the results accord with previous research in that whichever way the link works it does exist and endorses the impact or inter-relationship that exists between maternal mental health and infant outcomes.

A similarly complex picture has emerged for the relationship between maternal psychological morbidity and infant sleep patterns. Muscat et al. (2014) suggest that if a mother expects greater control over their infant sleeping behaviour then they are more susceptible to depressive symptoms if there are infant sleep problems. However other authors (O'Connor et al., 2007) suggested that pre-natal stress can affect the

foetus resulting in effects on infant sleep. Thus there may also be a physiological mechanism in operation which affects the mother infant dyad. The results of the current study are unable to elucidate the direction of effect but have confirmed previous research in that a relationship does exist between the two. The current study has however shown that PTSD as well as depression is predictive of perceived infant sleep difficulties. This accords with Bosquet Enlow et al. (2011), who found that maternal PTSD was associated with offspring emotion regulation and underlines the impact that PTSD can have on infant mental health.

It is of interest that both sleep and feeding problems were associated with greater psychological morbidity as measured by GHQ -28. Coates, Ayers and deVisser (2014) have urged caution in using the measure with postnatal women owing to the nature of some of the questions. For example, asking a newly postnatal mother whether she has been able to leave the house recently may falsely pathologise her simply because she has caring duties for her new-born. An advantage of using GHQ-28 alongside the PTSD measure however, ensures that a wider range of psychological morbidity is detected. Additionally, some researchers have suggested that differences in results are seen because the independent variables do not equally predict the outcome variables (PTSD and general health) (Raphael, Lundin and Weisaeth, 1989; Hunkin and Chung, 2012).

The finding that the main symptom clusters for PTSD in this population were arousal and re-experiencing accords with Adshead (2000), who suggested that guilt based PTSD has a predominantly arousal based symptom cluster. One could speculate that childbirth related PTSD may have a larger element of guilt based reaction. This could be because their current PTSD may have emerged due to past trauma such as

previous sexual assault, or because an emotion of guilt or anger rather than fear may persist in postnatal PTSD sufferers. They may compare their birth story unfavourably with others around them, causing them to feel that they were in some way to blame for what happened. This is discussed further in the light of the qualitative findings in chapters nine and ten. Arousal may also be explained by general hyper vigilance associated with normal maternal postnatal behaviour, potentially leading to over diagnosis. Also this relates to the current finding that pain mediated the effects of independent variables on outcome variables. Furuta, Sandall and Bick (2014) suggested that higher levels of intrusion and avoidance symptoms in women with postnatal PTSD equated with greater maternal physical morbidity. Thus those who experienced more complications during labour may have remembered more pain, which could have contributed to the intrusion symptoms.

All predictors tested in the study were found to correlate with PTSD and GHQ, apart from the preoccupied subscale of attachment. Hierarchical regression was performed using four blocks; therefore I will discuss the possible relationship between predictor variables and outcomes in four sections. Conceptually the four blocks consisted of predictors that could be described as demographic and confounding factors for the first block (whether the pregnancy was planned, perception of sleeping difficulties for the baby, relationship with partner and maternal confidence) and in the second block predictors relating to the trauma and its characteristics (perception of the birth experience, past PTSD and PND). In the third block predictors that relate to personality (affect and alexithymia) were included and in the fourth block predictors related to coping and social support (self-efficacy, attachment and social support).

### **8.5.3 Block one predictors**

#### **Maternal confidence**

The impact of infant sleeping and planning the pregnancy has already been discussed and so I will turn attention to the impact of maternal confidence and partner relationship. The results of the current study have shown that maternal confidence correlates with PTSD. The maternal confidence questionnaire contains questions asking participants, for example, if they know when their baby may need feeding and thus would confirm the separate questions about perceptions about infant feeding, gaining weight and sleeping. Previously Reck et al. (2012) showed that pre-existing depressive and anxiety disorders predicted lower levels of maternal confidence. However the current study indicates that those with low levels of maternal confidence were more likely to experience PTSD symptoms; thus in the observed population the relationship appears to operate in the opposite direction. However it is likely that if a woman experienced reduced psychological health prior to the birth of her baby, for example PTSD or depression, since there is a relationship between past PTSD and current PTSD the past experience of PTSD could have contributed to the reduced maternal confidence found in this study. However, Reck et al. (2012) postulated that those experiencing PTSD as a result of the birth may feel challenged by looking after a new baby and thus feel less confident. It is clear that a relationship exists between the two variables but less clear in which direction it operates, thus this may be an area for future research.

In terms of the pragmatic or practical impact on postnatal women, in a review assessing possible interventions to reduce mental health problems in postnatal women

Barlow et al. (2010) suggest that maternal confidence can be boosted during the first few months postnatally by simple interventions such as written instructions and guidance for promoting positive infant sleeping patterns. Thus it is possible that if such simple and low cost interventions were universally introduced, maternal confidence could be increased and any associated psychological morbidity such as PTSD may also be reduced.

### **Dyadic relationship**

Robinaugh et al. (2011) suggest that negative dyadic interaction maintained PTSD symptoms when one partner had been involved in a motor vehicle accident. Additionally Iles, Slade and Spiby (2011) suggest that the dyadic relationship and attachment style is important in the development of postnatal PTSD, these were both shown to correlate with PTSD in the current study, however not for the pre-occupied subscale of attachment. However, Parfitt and Ayers (2009) conducted structural equation modelling and proposed that although PTSD had a direct effect on the parent baby bond, the effect on the couple relationship was mediated by depression. There seems to be a role then for PTSD and PND to contribute to factors such as impaired communication, which would affect the couple relationship. Ayers, Eagle and Waring (2006) conducted qualitative research showing that women with postnatal PTSD reported negative effects on their relationship with their partner, including sexual dysfunction, disagreements and blame for events relating to the birth. Previous research (Solmeyer and Feinberg, 2011) suggests there are several factors influencing early adaptation to parenting, even in couples with no mental health issues. These include the child (infant temperament), parent characteristics (gender, attitude and

past experiences) and co-parenting (individual context pertaining to a particular family). Thus adaptation to parenthood may be difficult even in the absence of additional psychological morbidity.

#### **8.5.4 Block two predictors**

These predictors included the perception of the birth, past PTSD and PND.

##### **Birth experience**

As suggested earlier in this chapter, the mediational model proposed that birth experience mediated alexithymia and affects for general and psychological health but not for PTSD. In particular the pain component of the labour seemed to be important. The measure used in the current study (Bailham, Slade and Joseph, 2004) consisted of three subscales (pain, fear and support) relating to women's perception of their labour. Recent arguments in the literature have focused on the relationship between the fear of labour and its influence on subsequent PTSD (Ayers, 2014). However, the current study reveals a novel finding which correlates pain more strongly with PTSD in this group of women. There is no doubt that when asked about childbirth women discuss the fear of pain in labour, disempowerment and loss of control (Fisher, Hauck and Fenwick, 2006), but recent research shows that fears can be moderated by continuous midwifery care during labour and an acceptance that a certain degree of pain is acceptable (Van der Gucht and Lewis in press). There is also recognition that a sense of control in labour is an important contributor to a woman's level of satisfaction regarding her birth experience (Furuta, Sandall and Bick, 2014). Furuta, Sandall and Bick (2014) describe partial mediation for the risk of PTSD symptoms by a woman's sense of control. In relation to the current study one could propose that a sense of

control is hard to achieve in women who perceive the birth negatively, which would explain why negative affect was mediated by the pain component of the birth experience for general psychological health. This could relate to O'Bryan et al.'s (2014) findings, which suggested that if individuals react negatively to negative emotions this enhances their sense of uncontrollability and unpredictability. This perhaps occurs in women experiencing reduced psychological health postnatally who appraise the painful experience of birth negatively and this then leads them to feel helpless and that they had no control over the situation.

### **Past PTSD**

Psychological vulnerability has been postulated as a predictor of PTSD (Soet, Brack and Dilorio, 2003; Olde, et al., 2006). However, O'Donovan et al. (2014) reported that the biggest single predictor of postnatal PTSD was previous trauma. Whilst the current study did not show that past trauma was the biggest predictor none-the-less past PTSD was found to be correlated with PTSD as a result of childbirth. As mentioned elsewhere, women may have experienced past sexual abuse in particular which could be predictive of current PTSD in postnatal women (Soet, Brack and Dilorio, 2003). In addition, past PTSD was found to significantly correlate with general psychological health scores. The postnatal population are especially vulnerable; it would seem, to cumulative PTSD across the lifespan (Schumm, Briggs-Philips and Hobfall, 2006). Thus there is need for midwives to sensitively encourage women to share their history antenatally, to enable those with vulnerability caused by past abuse to be provided with additional support in planning their labour. The findings in the current study also show correlation between general psychological



health and past trauma, thus it could be postulated that birth trauma rendered women vulnerable to other psychological and somatic illness as well.

## **PND**

Recent research has suggested that depression and PTSD symptoms are both manifestations of traumatic stress (Dekel et al., 2014; Ikin et al., 2010). It was unsurprising therefore to find a co-morbidity in the current sample. Correlation was found with both general psychological health and PTSD for PND. It is possible that since the questionnaires were completed only four weeks after the birth of their babies, some women may have not yet developed postnatal depression symptoms. Thus the rates in the current study may be a conservative representation. However a review by Gavin, Gaynes and Lohr (2005) showed that the prevalence of PND was 5.7% from birth to two months and 6.5% at 6 months rising to 12.9% at 12 months. In the current study the PND measure was used at one month after the birth and the prevalence was 8.5% for those with no PTSD, 10.5% for those with partial PTSD and 15% for those with full PTSD. Thus even a month after the birth a higher prevalence of PND was identified in the current study. This could be explained by the fact that the current sample of women included those who may have experienced more perinatal complications than other cross-sections of postnatal women as discussed earlier. Also, those who co-expressed PTSD may have been more vulnerable to PND or indeed may have already had depression antenatally. The findings in the current study equate more to those of Parfitt and Ayers (2009), who found 15.1% of women with PTSD also had PND although they did not report partial PTSD measures and in the current study 10.5% of women in this category also had PND. Interestingly Parfitt and Ayres (2009)

used structural equation modelling to investigate the effect of PTSD on the couple relationship, as reported earlier, but although PTSD was found to impact the parent baby bond directly, the effect on the couple relationship was mediated by PND. Thus a complex inter-relationship exists even if they are not part of the same construct.

As previously mentioned Dekel et al. (2014) conducted longitudinal research conducted over a seventeen year time period and suggested that PTSD and PND are actually part of the same construct while Rytwinski et al.'s (2013) meta-analysis of 57 longitudinal studies revealed that 52% of those with PTSD had co-occurring major depressive disorder (MDD). Much of the above research relates to MDD (rather than PND) and PTSD, however there has been considerable debate in the literature regarding the acceptance of PND as essentially the same disorder as MDD. Initially Treloar et al. (1999) suggested that the dysphoric state that affected some women postnatally contributed to PND being conceptualised as etiologically independent of other forms of depression. However more recent research contradicts this by demonstrating that there were no differences in presentation between PND and MDD (Cooper et al., 2007). So although there may still be debate it could be acceptable to consider that to a large degree PND and MDD are the same and also that PTSD is part of the same construct as MDD/PND. Indeed White et al. (2006) report co-morbidity between PND and PTSD at several time points postnatally and suggest that the correlation between the two may increase with time. Given that the current study only measured PTSD and PND at one time point I have only been able to partially capture the relationship between the two in this population of women. In agreement with White et al. (2006), since co-morbidity exists between PTSD and PND the current

study's findings would support the introduction of a screening measure capable of assessing a wider range of psychological morbidity postnatally than the EPDS.

#### **8.5.5 Block three predictors**

Results from the current study show an important role for personality factors such as alexithymia and affects in the susceptibility to reduced psychological health. As mentioned earlier the effects of affects and alexithymia on general and psychological health were mediated by the pain component of the birth experience. A potential role for negative mood has been explained above.

#### **Alexithymia**

In terms of the role of alexithymia in postnatal psychological morbidity, it is an area underexplored in the midwifery literature. The importance of alexithymia has been reported in relation to PTSD with differing aetiology but not with a postnatal cohort (Frewin et al., 2008). Previously Declercq, Vanheule and Deheeger (2010) investigated a cohort of nurses and ambulance personnel and found that alexithymia predicted numbing and hyper-arousal symptoms of PTSD but not avoidance or re-experiencing symptoms. This accords with the symptom profile of the cohort of women investigated in the current study, where 45% of the women reported symptoms of arousal and only 19% reported avoidance. Additionally 10% of women with no PTSD had alexithymia and 14% with full PTSD had alexithymia. These findings are consistent with a large Finnish study of alexithymia prevalence in the general population (Salminen et al. 1999) where 10% of women were found to have alexithymia. The trait appears to be more prevalent in men (17%) but currently there appears to be a lack of studies that have included this predictor with postnatal women.

Indeed Frewin et al. (2008) recommended that more research with women should be undertaken as most previous research regarding PTSD and alexithymia has focused on male combat veterans.

In common with Thompson and Waltz (2010) I found that alexithymia predicted PTSD. Additionally some authors suggest that alexithymia should be included as a symptom of PTSD (Badura, 2003; Declercq, Vanheule and Deheeger, 2010). In postnatal women the effect may be accentuated because those who have experienced long term PTSD related to abuse are also at greater risk of alexithymia (Zlotnick, Mattia and Zimmerman, 2001). In some ways it is logical that someone who cannot describe the sensations in their body or adequately characterise the emotions they are feeling would find the pain component of the birth overwhelming because they would be less able to label it and rationalise about it. This could then impact upon their experience of psychological morbidity. Alternatively, women who cannot express emotions may perceive more pain and then experience greater psychological morbidity or even somatic morbidity as a result of this. Recent research (Horsham and Chung, 2013) suggests that the way individuals process emotions is important and that, if they have an altered self-capacity as a result of trauma and experience pain catastrophising, this will result in reduced psychological health. It is unsurprising then that alexithymia would be important as it is an emotion regulation factor.

It is not clear why in the current study a mediational relationship existed for GHQ-28 and not for PTSD, especially since other authors have proposed that alexithymia could be conceptually regarded as part of the symptom profile for PTSD (Badura, 2003). As discussed earlier it is possible that this novel finding for alexithymia in this population requires confirmation from future work in this area. It is possible

that screening for alexithymic individuals prior to labour would enable targeted midwife support.

### **Affect**

The significance of personality variables in this population seems to be a novel finding. The finding would seem to suggest that general psychological health can be mediated by emotion regulation via the birth experience and in particular the pain component of the experience. Post et al. (2011) suggested that future work should focus on fear based symptoms of PTSD and positive affect regulation in depression (which sets them apart). According to the findings in the current study, I would suggest that affect regulation has more of a role in depression than in PTSD. Olde et al. (2005) suggested that low emotion post birth predicted PTSD however the current results suggest a role for low mood in mediating poor psychological health rather than PTSD via the birth experience. Given that some authors (Dekel et al., 2014; Ikin et al., 2010) have suggested that PTSD and PND are part of the same construct of psychological morbidity it may not be appropriate to be too assiduous in the attribution of association for some independent variables. However the current study confirms findings by O'Bryan (2014), suggesting that negative reactions to negative experiences enhance the individual's sense of uncontrollability and unpredictability: and could explain the mediational influence found for affect on the birth experience and its relationship with psychological morbidity. In contrast with the current study Shepherd and Wild (2014) suggest that difficulty regulating emotions may be linked to PTSD rather than negative emotions *per se*. They discuss the role of reduced use of cognitive change strategies in this. However, the current findings suggest that such a

mechanism may be in operation but rather than PTSD, depression and anxiety are linked to the difficulty regulating emotion.

#### **8.5.6 Block Four predictors**

##### **Self-efficacy**

In terms of perceived control the current findings would seem to contradict those of Furuta, Sandall and Bick (2014), as they suggested that perceived control partially mediated the risk of PTSD symptoms. However, I found that personality variables relating to emotion regulation (alexithymia and affects) had a more significant impact on the general and psychological health of the population studied. Few other authors have included both emotion and self-efficacy measures in their study. Czarnocka and Slade (2000) and Soet, Brack and Dilorio (2003) reported self-efficacy as a predictor of PTSD. In the current study the correlation result for self-efficacy ( $r = -0.33$  for PTSD and  $r = -0.27$  for GHQ-28) shows that there is a relationship between self-efficacy and psychological health. However, in the four stage hierarchical regression analysis that was subsequently performed the emotion variables (alexithymia and affect) were shown to be more predictive of poor psychological health than self-efficacy. It is possible that low mood and low self-efficacy will co-exist and that emotions impact self-efficacy beliefs (Bandura, 1977) but the current study shows that low mood and alexithymia are stronger predictors than self-efficacy of PTSD and other psychological morbidity. The pain component of the birth experience is also of interest here in that Berentson- Shaw, Scott and Jose (2009) found that if women have a strong sense of self-efficacy antenatally then they were more satisfied with the birth and report lower levels of perceived pain and distress

postnatally. The pain component of the birth experience has a mediating role in the current study, but not for the effect of self- efficacy on PTSD and general health, so this quantitative finding contrasts with the qualitative work of Berentson- Shaw, Scott and Jose (2009). The current finding would therefore seem to support a small preliminary study (Escott et al., 2005) involving equipping women antenatally with strategies such as breathing, relaxation and positions. Escott et al. (2005) found that such strategies that were aimed at increasing self-efficacy, did not affect women's perception of labour. However, it is possible that a newly taught strategy is not fully assimilated as a coping mechanism (Escott et al., 2005), thus a Cochrane review concluded that little benefit was gained through antenatal education programmes in terms of teaching coping strategies for labour (Gagnon and Sandall, 2007).

### **Attachment**

The Relationship Scales Questionnaire (Hazan and Shaver, 1987) was used to indicate the adult attachment style of an individual. Bartholemew and Horowitz (1991) suggested that individuals use models of attachment based on those internalised in childhood to regulate their affective state and so traditionally the Adult Attachment Interview (AAI) (George, Kaplan and Main, 1985) has been used to determine this. The AAI however, is a clinician administered measure and would have been expensive in terms of clinical time, especially as clinicians require extensive training in order to administer it reliably. Also, it was not designed to be used as a self-report measure. Ayers et al. (2014) used the Adult Attachment Questionnaire (AAQ) (Simpson, Rholes and Phillips, 1996) consisting of fewer questions than the RSQ (Hazan and Shaver, 1987), which was also a self-report measure. In contrast the Adult

Attachment Interview (AAI) (George, Kaplan and Main, 1985) contains many more questions that directly relate to the participant's state of mind regarding their childhood attachment experiences. Thus it is acknowledged that the RSQ (Hazan and Shaver, 1987) and the Adult Attachment Questionnaire (AAQ) (Simpson, Rholes and Phillips, 1996) are both proxy measures where the questions focus solely on current romantic relationships; however it could be argued that this showed a more accurate current view of adult attachment style. Previous research with postnatal women has shown avoidant attachment style to be a predictor of PTSD (Ayers et al., 2014) which accords with the current study. Ayers (2014) found no correlation between anxious ambivalent attachment and PTSD and the current study also found no association between PTSD and the preoccupied (high anxiety low avoidance) attachment construct. The correlation results showed a negative correlation between secure attachment and PTSD ( $r=-0.41$ ) and also GHQ-28 ( $r=-0.48$ ). However in the multiple regression analysis conducted in the current study there was a larger difference in variance for block three factors (affects and alexithymia ) than block four (coping and attachment), indicating the complexity of the relationship between these personality variables. It is worth considering the close link between alexithymia, affects and attachment. Mallinckdrodt and Wei (2005) suggested that alexithymia mediates an association between the anxious and avoidant attachment styles and psychological distress and perceived social support. Thus women in the current study who had developed an anxious or avoidant attachment style may have also been alexithymic and found it hard to regulate emotion, so they would not have coped well with the pain of labour, would have been more at risk for psychological morbidity and would have been unable to seek effective support. There is also evidence that emotional



regulation strategies can be closely linked to attachment patterns via an individual's ability to reappraise or have capacities for resilience (Karremann and Vingerhoets, 2012). Thus those with a secure attachment pattern seek support and express emotions after trauma, but those in particular with a preoccupied attachment pattern, will not seek support and show a lower ability to cope with trauma.

### **Perceived social support**

As previously mentioned, because the social support measure used was self-completed it can only represent women's perceptions of support rather than actual levels received. Previous research has shown that those with alexithymia or insecure attachment are likely to perceive lower levels of social support (Mallinckdrodt and Wei, 2005). In the current study low perceived social support also correlated with increased levels of PTSD and psychological morbidity ( $r=-0.22$  for GHQ-28 and  $r=-0.29$  for PTSD). As previously discussed in chapter two a social support model has been proposed for PTSD (Charuvastra and Cloitre, 2008) whereby social support can not only predict levels of PTSD but act as a risk factor for subsequent development of PTSD after trauma. This model is of particular interest in postnatal PTSD because of the author's proposal that, if the trauma was perceived by the individual as having a human cause, it is associated with more fear based symptoms and social support could potentially attenuate fear. Ford, Ayers and Bradley (2010) derived a cognitive model to predict PTSD based on that of Charuvastra and Cloitre (2008), which highlighted the importance of negative appraisals of the trauma and also suggested that social support moderated PTSD in postnatal women. Suggesting an increased level of provision of social support networks may at first seem a simple solution. However, unfortunately

owing to the predisposition of the individual (personality and cognitive influences) the very people who require social support are unlikely to seek it out.

## **8.6 Strengths and Limitations of the Study**

A strength of this study was that over a period of 24 months, all eligible women giving birth in a busy maternity unit were approached personally for inclusion in the study. This resulted in a high participant rate and data from over 200 women. Unfortunately selection bias occurred in the study as non-English speakers were excluded as originally the ability to write fluently was necessary as a writing therapy intervention had been planned. It is also possible that English women with poor literacy skills would be excluded (this is discussed in more detail in chapter eleven). In terms of demographic details the sample was predominantly white, well-educated British women and a more ethnically and educationally diverse population may have yielded different results.

Possibly due to the nature of life after the birth of a baby a large number of women only partially completed the set of questionnaires, and so they were excluded from analysis. This is likely to always be a problem with this particular population and could be addressed by asking women to complete questionnaires during regular meetings with health care professionals such as health visitors. Also a bias may have been introduced in terms of the number of questionnaires and the use of the internet for access. It could be assumed that only those with access to home computers could complete the questionnaires and also due to the amount of reading required women who found reading harder would not have completed the questionnaires. This limitation is discussed in chapters one and ten.

The women were recruited postnatally and so recording baseline information for measures used in the study was not possible. This would have been particularly useful for variables which are not regarded as stable over time (Iles , Slade and Spiby, 2011), although timing of questionnaires was influenced by previous authors (Frattoroli, 2006).

All questionnaires in the study were self-completed so the strength of the study could have been enhanced by using clinical measures. The issues regarding use of the Adult Attachment Interview instead of the Relationship Scales Questionnaire have been discussed above. However the AAI would necessitate attendance at a clinic or being visited by a researcher which may have been considered overly invasive. Also the epistemological basis of the study was conceived as allowing women to use the internet to access both questionnaire (and originally writing therapy) in order to facilitate access to therapy for newly postnatal women and so over involvement by a clinician would have conflicted with this.

## **8.7 Summary of Contribution of Quantitative Findings to Body of Knowledge**

### **8.7.1 Theory**

In the quantitative phase of the study 15.6% of women were found to have full PTSD and 48.3% had partial PTSD, which has not previously been reported for this group of women.

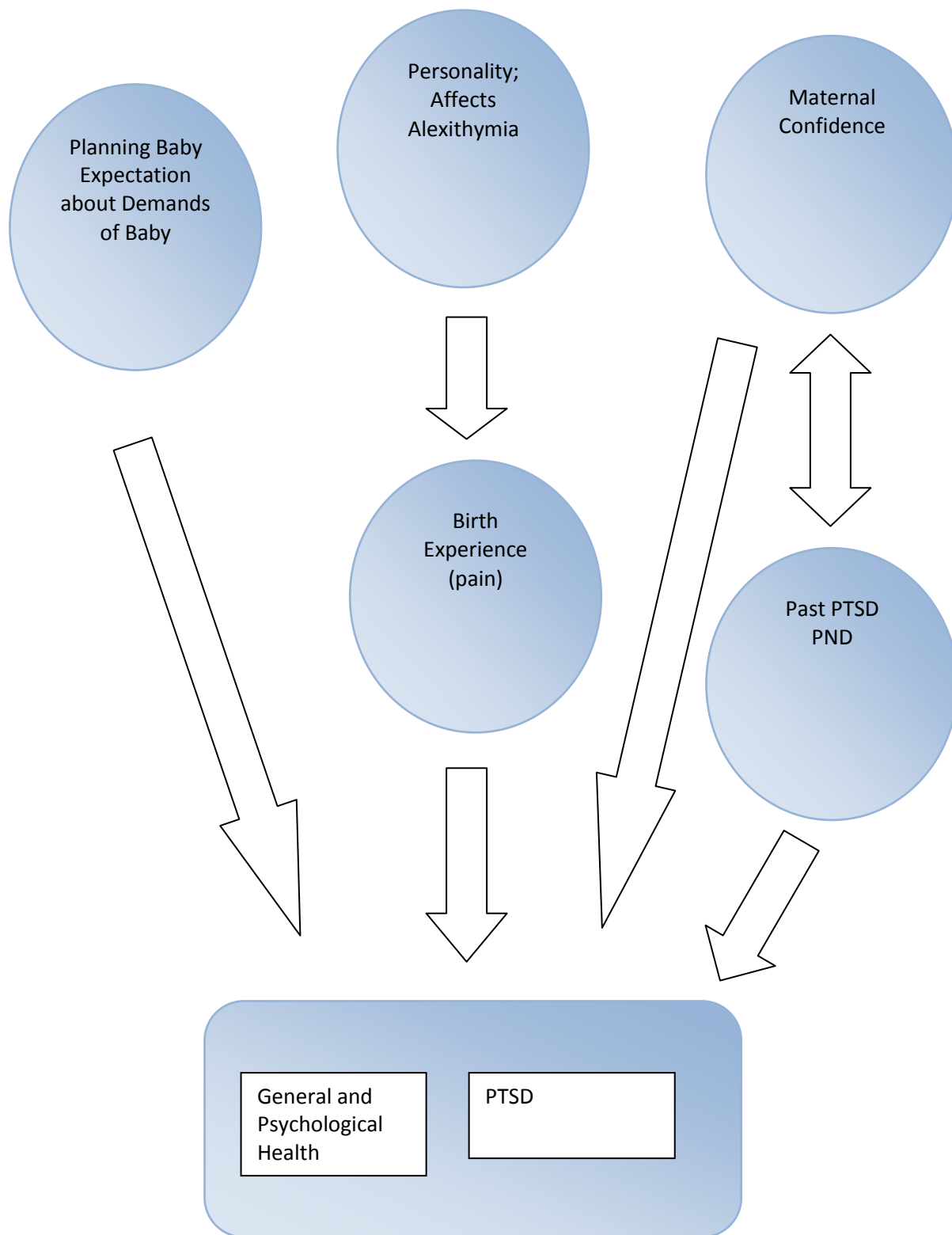
The main symptom clusters for PTSD in this population were re-experiencing and hyper-arousal, which were possibly exacerbated by normal worries over a new baby. The following independent variables were found to correlate with PTSD and

general and psychological health; past trauma, maternal confidence, self-efficacy, baby not sleeping, post natal depression, poor birth experience, support and attachment.

Personality variables (alexithymia and negative affect) were the strongest predictors for reduced psychological health and PTSD. This finding has not been previously reported for postnatal women. A mediational relationship between affects, alexithymia and reduced physical and psychological health via the pain component of the birth experience has been found. The way in which pain is conceptualised by postnatal women may be important especially for those with alexithymia.

### **8.7.2 Mapping derived from quantitative findings**

A summary of the main interactions between variables is presented below. The mediational effect of the pain component of the birth experience for affects and alexithymia on psychological health can be seen. Additionally, demographic variables such as whether the baby was planned and how demanding the baby was were also correlated with PTSD. Maternal confidence, past PTSD and PND were also found to be important predictive factors. The findings represented in the figure were used to derive a final model along with the findings from the case study and the qualitative phase.



**Figure 8.2 Mapping of main interactions of predictors with PTSD and GHQ**

### **8.7.3 Methods**

The participants recruited to the study were 'real' postnatal women and not students. The research was underpinned by a pragmatic desire to improve mental health outcomes for postnatal women. In addition, the range of measures used in the current study has not been previously used with a population of postnatal women.

A relatively new analytic tool; the mediation package 'PROCESS', developed by Hayes (2013), was used to determine mediational relationships between variables. This has not been previously used in PTSD research with postnatal women.

### **8.7.4 Practice**

Given the importance of past trauma and psychological vulnerability factors on women's experiences of birth, midwives should be encouraged to assess these antenatally. Previous research has recommended postnatal screening (O'Donovan et al., 2014) with an emphasis on post birth low mood. However, given the findings in the current study regarding affects and alexithymia, it may be important to screen antenatally for these predictors.

Prady et al. (2013) have however urged caution in the use of a blanket approach to postnatal screening using instruments such as GHQ-28, where issues of sensitivity and specificity are important. This is because some somatic symptoms may be a normal part of the postnatal recovery process and could be experienced by many women in adapting to features of early parenthood such as lack of sleep. None-the-less a broader instrument may be useful as it would detect stress symptoms which may not be detected by the current screening process (Milford and Oates, 2009).

Psychodynamic and mindfulness therapy could be explored as a treatment for postnatal PTSD especially in those with alexithymia or low mood. The literature shows conflicting results for the efficacy of therapies other than CBT (Ehlers et al., 2014; Boden et al., 2012) but there are still relatively few studies and none with postnatal women.

#### **8.7.5 Research recommendations**

1. A study should be designed to obtain more data from postnatal women to enable a more detailed exploration of emotion regulation and PTSD. This should elucidate further the complex inter-relationship identified between the pain component of the birth experience, affects, alexithymia and the impact of birth expectation and self-efficacy in postnatal women with PTSD and associated psychological morbidity.
2. Development of an appropriate alexithymia screening tool for use with antenatal women.
3. A pilot study should examine the use of a broader screening measure than the Edinburgh Postnatal Depression Scale (EPDS) used at six weeks after the birth in order to detect symptoms of PTSD in addition to PND symptoms.

## **9 Qualitative Phase**

### **9.1 Introduction**

In this chapter I discuss the main findings from the qualitative phase of the study. This entailed a narrative analysis of seven interviews with women who had PTSD and did not access writing therapy. Firstly I will introduce the women who participated in interviews and analyse codes and themes from the transcripts of their stories. I will then synthesise the findings and main themes from all the stories. The women's names and all other individuals referred to have been changed to preserve their anonymity.

### **9.2 Methods**

I explained my rationale for choosing narrative analysis in the methodology section. My approach was influenced by Squire (2008), who suggested that researchers should, through multiple readings of the transcripts, perform a content analysis, through which themes would then emerge. She then suggests that if theories are derived from the themes they can be tested for sequencing, progression and transformation or resolution. Additionally, Josselson (2011) stresses the importance of exploring the voices which emerge from the narrative and, McHugh (1999) emphasises the need to value women's voices that struggle to emerge from the current medicalised form of knowledge surrounding childbirth.

Thus I started the analysis by reading each transcript several times and coding for content. For example if the word 'pain' appeared I placed a code for this in the margin and added the code to the coding frame noting the line number of that



particular use of the word. I then grouped codes under emerging themes. As suggested by Reissman (2008), at this stage I sought to produce categories. Finally the themes were organised across cases to assess any similarities between events and feelings. An example of this follows; I coded this line from Annie as 'complicating condition' because it was a pre-existing condition which may have affected the development of PTSD after the traumatic childbirth:

Annie: *"Yes.....so I have Bechet's syndrome and it can aggravate the joints and hips and I 'd already broken my pelvis previously ... "* (Lines 30-31)

I then noted the number of occurrences of this code (for Annie this occurred eight times) in order to compile the tables and charts below. Subsequently I decided that this particular code should be categorised as 'previous history'.

Initially, as suggested by Reissman (2008) and Andrews (2008), I wanted to explore each story separately because it recounted individual experience from which rich data could be derived. Thus I produced summaries of each story to ascertain an overall structure for the accounts. I returned to the detail of each transcript and recoded according to structural features such as the overarching type of story (e.g. drama, tragedy, comedy). I also sought to recognise motifs or metaphors, explore views of self, key relationships, main protagonists and power dynamics. In addition, I investigated any evidence of sequencing, progression and transformation in the accounts. An example of structural coding follows; I coded this line from Gwen as rationalising:

*"I wouldn't necessarily do a blog about it you know there are some things I wouldn't want to air all over the internet but if that makes you feel better then that's what makes you feel better and I think that at the end of the day it's about your sanity more than anything else".* (Line 395-398)

Finally I returned to the particular features of the stories that may have a thematic origin, for example solidarity with other women, or a structural origin such as the pre-existing self and the performative self. Although themes began to coalesce between the stories, I was keen to report the uniqueness of each story as well. I was aware of the existence of each story within a social and time-related context, so additionally endeavoured to situate the stories within their own contexts and examined how they drew on the broader social discourses (Reissman 2008).

### **9.3 Results**

Figure 9.1 shows the relative occurrence of the main thematic codes across cases. Table 9.1 shows how I decided to derive themes from the original codes. Table 9.2 summarises the comments about the writing from all seven women. The structural coding derived from all transcripts is represented in Table 9.3 and Figure 9.2 shows the main structural elements across cases. A portion of a thematically coded transcript can be found in Appendix xii.

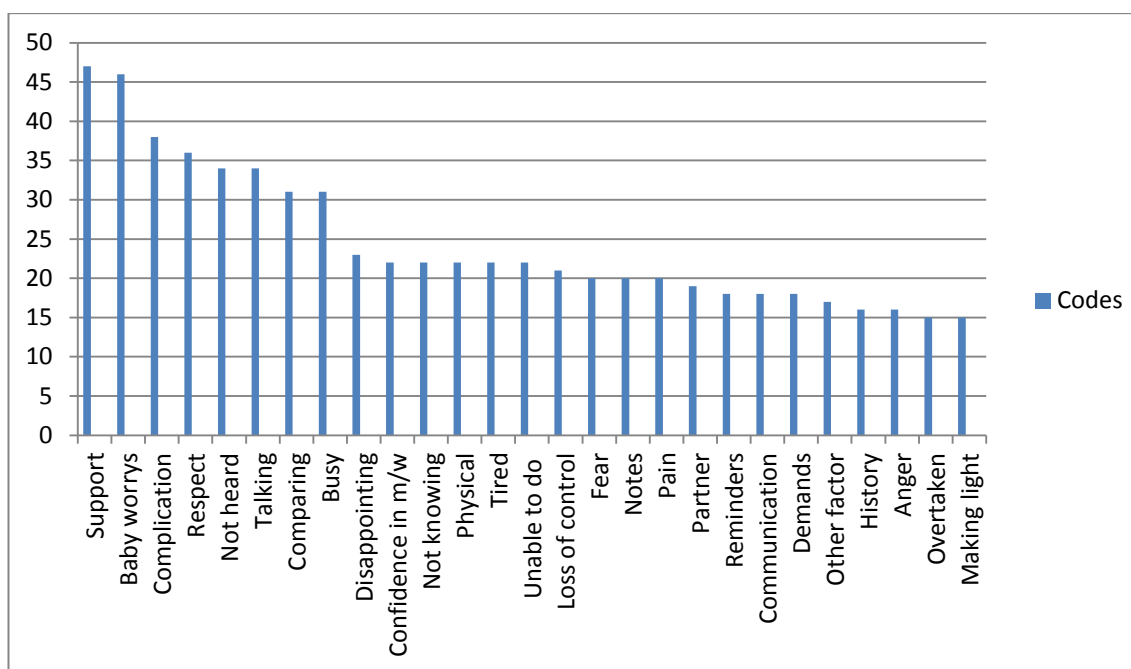


Figure 9.1 Occurrence of main codes

Table 9.1 Codes grouped under themes

| Theme                                  | Codes   |
|--|---|
| Relationship with health professionals | Fearing advice, lack of dignity, doing the right thing for the individual, feeling judged by health professionals, giving in to pressure from health professionals, first disappointing contact with health professionals, lack of confidence in health professionals, feeling pressurised by professionals, respect for certain health professionals, reassurance from health professionals, staff not available when needed, good midwifery care, usefulness of debriefing, disappointing outcomes, |
| Procedures and processes               | actions taken by others or self, advocating for others, birth plan, baby being checked, debriefing with notes, disappointing outcomes, unwanted intervention, long labour, slow labour, medical environment, notes, unexpected  |

|                             |   |
|-----------------------------|---|
| Communication               | conflicting information, lack of information, <b>good midwifery care</b> , importance of communication, importance of listening, insensitivity, not knowing what was happening, <b>not feeling listened to</b> , lack of information, midwifery care and communication, feeling you are not alone, needing information, unanswered questions about the event, talking to people, <b>usefulness of debriefing</b> , unable to take anything in, not feeling understood, wishing she had communicated with health professionals, <b>worried about letting feelings out</b> , <b>feeling shut out</b> , notes. |
| Previous history            | complicating factor, complicating condition, history, pleasant birth, physical problems   |
| Perception of self          | feeling alone, <b>comparing self with others</b> , confused, determined to achieve, coming to terms with different perceptions of the event, feeling abnormal, feeling confident, intuition, loneliness, sense of achievement, self talk, trusting self, <b>lack self confidence</b> , <b>getting normal life back</b> , <b>strong ideas of ideal birth</b> , <b>identity</b> ,   |
| Worries                     | about advice given, anxiety, comparison with other babies, fear, horror, feeling nervous, worried about upsetting others, paranoid, pain, stress, shocked, worries about baby, about money, <b>about letting feelings out</b> , worried about self, <b>comparing self with others</b>   |
| Control                     | Anger, feeling annoyed, blaming self, <b>lack self confidence</b> , condemnation, choice, losing control, lack of concentration, expectations, feeling in control, frustration, <b>getting normal life back</b> , <b>strong ideas of ideal birth</b> , overtaken by events, overwhelmed, planning, feeling powerless, <b>feeling shut out</b> , taking control of the situation, unable to do anything, unable to change things, going against wants and wishes, <b>lack of dignity</b>   |
| Avoidance/ re-experiencing  | avoidance, burying the past, wouldn't want to go through it again, forgetting parts of the event, generally forgetful, recurring images, unreliable or inaccurate memory, hard to remember parts of event, not wanting to repeat the past, nightmares, reminders of the event, reliving the experience, shutting off from feelings, thinking about the situation; re- experiencing it   |
| Insignificance/significance | not paid attention to, feeling cared about, helplessness, defenceless, <b>identity</b> , feeling insignificant, feeling ignored, waste of time, felt unimportant, feeling vulnerable, being left waiting , <b>not feeling listened to</b> , <b>staff not available when needed</b>  |

|                                 |  |
|---------------------------------|--|
| Demands on self                 | demands of baby, busy, crying, dealing with issues, feeling needed but stretched, feels like bad parent, getting on with things, hard to cope, impact of baby on life, initially hard, lack of sleep, mastitis, taking responsibility for baby despite everything else, tired  |
| Justification / resolution      | acceptance, looking to the future and how the experience impacts upon it, making excuses for things, making light of the situation, feeling the need to justify decisions, positive spin, pragmatic approach, proud of outcome, rationalising feelings about the event, resignation, taking responsibility for negative outcomes, resolution of feelings , regret, seeing the event as a whole   |
| Other emotions                  | Feeling guilty about actions, feeling un- emotional, love for baby, relief, surprised, trauma, uncertain feeling, unhappy, feelings are ephemeral in nature  |
| Support from family and friends | Expectations of friends and family, availability of friends, feeling bitter about friends, importance of friends, feeling let down by friends, support from talking to friends, group support, importance of support from others, support from mother, partner, concerned about partner, importance of partner, having a person with you, support from colleagues, difficulty sharing problems with others, importance of social media, talking to partner |

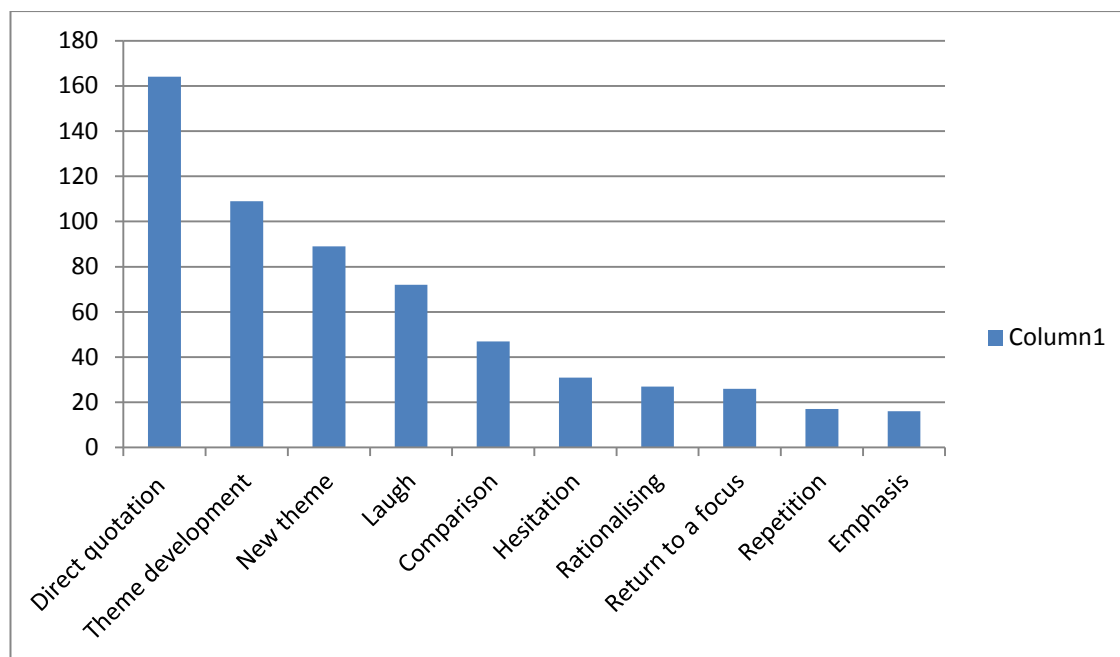
**Green highlight** = code grouped under more than one heading

**Table 9.2 Factors relating to the writing**

| <b>What was said about the writing</b>                            | <b>Number</b> |
|---|---------------|
| Didn't know what to say   | 1             |
| Didn't have time to write   | 1             |
| Frightened of the writing   | 1             |
| Returning to the writing later                                    | 1             |
| Importance of anonymity in the writing                            | 1             |
| Worried about how the writing would appear to the reader          | 1             |
| Feeling uncomfortable about the writing/ not liking writing       | 1/1           |
| Worried that writing can't represent feelings accurately          | 2             |
| Feeling pressurised about the writing                             | 2             |
| Timing of the writing   | 3             |
| Writing   | 3             |
| Breaking the writing down   | 3             |
| Worried about the immutable nature of writing                     | 3             |
| Difficulty writing/ struggled with the writing/ not able to write | 1/4/3         |
| Lack of technology/ usefulness of technology                      | 1/3           |

**Table 9.3 Results from structural coding**

|                                       |    |    |    |    |    |    |    |     |
|---------------------------------------|----|----|----|----|----|----|----|-----|
| Antithesis                            | 1  |    | 2  |    |    |    |    | 3   |
| Broken thought process/distraction    | 1  |    |    |    |    |    |    |     |
| Colloquialism                         |    |    | 1  |    |    |    |    | 1   |
| Comparison                            | 6  | 4  | 9  | 7  | 1  | 9  | 11 | 49  |
| Condensing                            |    |    |    |    | 1  |    |    | 1   |
| Conspiracy with audience              |    |    |    |    |    | 1  | 1  | 2   |
| Context                               | 2  | 4  | 1  |    |    |    |    | 10  |
| Developing a theme                    | 21 | 12 | 9  | 15 | 16 | 15 | 21 | 113 |
| Digression                            | 2  |    |    |    |    |    | 1  | 3   |
| Direct quotation                      | 21 | 5  | 29 | 4  | 2  | 40 | 63 | 173 |
| Enhanced detail around a theme        |    |    | 1  |    |    |    |    | 2   |
| Emphasis                              | 2  | 1  | 4  | 2  | 1  | 4  | 2  | 20  |
| Gesture                               |    | 2  |    |    |    |    | 4  | 7   |
| Hesitation                            | 23 | 8  |    |    |    |    |    | 39  |
| History                               | 7  | 1  | 6  |    | 1  | 6  |    | 21  |
| Hyperbole                             | 2  | 1  |    |    |    |    |    | 3   |
| Imagery                               |    |    | 1  |    |    |    |    | 1   |
| Impact of story on the future         |    |    | 3  |    |    |    |    | 4   |
| Including others as audience          | 1  |    |    |    |    | 9  | 1  | 11  |
| Irony                                 | 1  |    | 3  |    |    |    |    | 4   |
| Laugh                                 | 16 | 6  | 13 |    |    | 24 | 13 | 74  |
| Metaphor                              |    | 4  | 1  |    | 1  |    | 2  | 8   |
| New theme                             | 13 | 8  | 11 | 13 | 11 | 20 | 13 | 94  |
| Projection of story into the future   |    |    | 2  |    |    |    |    | 4   |
| Putting into perspective              |    |    | 2  |    |    | 2  |    | 5   |
| Questioning                           |    | 1  | 1  |    | 2  | 2  |    | 6   |
| Rationalising                         | 4  | 1  | 7  | 2  |    | 9  | 4  | 35  |
| Reflecting/evaluating                 | 1  |    | 2  |    | 3  | 4  | 5  | 17  |
| Repetition                            | 3  | 3  | 5  |    | 2  | 3  | 1  | 25  |
| Retelling story in new context        |    |    | 1  |    |    |    |    | 1   |
| Returning to important theme or focus | 12 | 7  | 2  |    |    | 4  |    | 26  |
| Simile                                |    |    | 2  | 1  |    | 1  | 14 | 18  |
| Visualising events again              | 3  |    |    |    |    |    |    | 3   |



**Figure 9.2 Key Structural/ Compositional Elements Across Cases**

### 9.3.1 My focus

My definition of narrative is mainly case specific and single incident specific (Reissman 2008). It is about the multiple layers of narrative surrounding the birth experience, what the woman says about herself, what she says about her relationship with her supporters, the relationship with professionals and how this has changed over time. However, as a pragmatic researcher I was aware of the tension referred to by Smith and Sparkes (2006), between the narrative analysis of the story told by each woman, the 'objective' abstraction of themes from the content and the analysis derived by the researcher. I was sensitive to the possibility that as a researcher I was incorporating the process of interweaving their unique and personal story with my individual perspective about the narrative analysis, which ultimately contributed to the final presentation of each story. Thus the re-telling and analysis of women's stories cannot be isolated from my story and my beliefs and epistemological background.

The initial reason for the interviews was to investigate why women didn't write about their birth experience. However qualitative research is able to explore a particular situation in more depth than quantitative work (Bryman, 2001). During interviews and analysis I became aware of the need to investigate in more depth the impact of guilt and shame about the birth experience on the desire to write about the experience. Also, it was important to ascertain more about the relationship between women who had either strong ideas about the birth beforehand or a strong internal locus of control and the effect that the birth had upon them.

Once I started interviewing I realised how much the women were really talking about forms of communication, as far as my analysis is concerned this can be broadened to include support from family and friends and the emphasis on communication of negative emotion around the perceived happy experience of childbirth. This directly relates to the influential broader discourses around motherhood, which are summarised by Marshall and Thompson (2014) as; the good mother, independent mother, the natural mother and utopian motherhood. Each is a stereotype prevalent in Western postmodern culture, however each brings with it high ideals that in practice remain unachievable by many.

### **9.3.2 The Individual stories**

Because narrative inquiry is situated primarily in bounded excerpts and single incidents (Reissman, 2008) it was important for me to see each story as unique, thus in the subsequent case by case analysis I was concerned not with uniting themes but with exploring individual women's experiences. I wanted to ascertain any meaning the women had made whilst telling their stories as women, mothers and part of society in



a historically situated time and context. I was particularly interested in the type of story they sought to tell, (drama, tragedy, adventure) and whether it had themes of restitution, chaos or quest (Holloway and Wheeler 2002). The subtle interactions between teller and audience were also important to illuminate because this may have affected what they chose to tell. As mentioned previously I was aware that the narratives were in a sense co-constructed with me. In terms of the role of experience in narrative research Scott (1991) identifies two significant aspects worth consideration. Firstly the observer or researcher needs to interpret the evidence around the experience and secondly they need to analyse how the evidence or knowledge gained from having the experience has been produced. This is pertinent because during the interview I needed to not just be aware of the surface details of the experience, which women have of their birth, but also how they chose to frame the story when they spoke of it. The initial bracketing interview was useful in this situation because it helped me to be aware of how the women may have perceived me as a researcher and thus how they either consciously or subconsciously related their story. It also helped me to be as aware as possible of my own presuppositions, which could bias the process of analysis (Jootun, McGhee and Marland 2009).

I wanted to investigate the structure of the narrative, as well as whom the main characters and protagonists were. I explored the many voices of self that the women used, including any pre-existing ideas they may have had about themselves and also the per-formative aspects of the narrative. I was also interested in how the women positioned themselves at various points in the story (for example; partner, mother, daughter, victim).

### 9.3.3 Annie

In the pre-amble before the interview Annie revealed that she was a professional in her everyday life. She was used to interacting with a large number of people on a daily basis and being in control of her circumstances. From this I surmised that she was used to being assertive, she was used to having her voice heard. I interpreted the story as a drama because there are elements of high drama such as the drive through the snow under police escort and also the high levels of pain experienced due to an underlying medical condition. These parts of the story have perhaps led to the unreal nature of what happened in the narrator's mind (perhaps this accentuates the evident distancing).

Annie had initial fears which were subsequently realised. She returned to her fears many times especially those concerning a Caesarean Section and its sequelae:

*"...my feet are only a size four I've really still got this ....I've got this thing in my head that I'm gonna gonna end up with an emergency c section...."* (Line 126-128)

She had subsequent fears about facing the reality represented by the notes, which had not been dealt with. There was a sense of avoiding the reality portrayed by the notes. She also found she could not face the photographs that were taken by a member of staff for her during the Caesarean section:

*"..... I have basically because most of them are of her the ones where I'm cut open I've turned the picture over and slotted it in because I can't look at that...you know I can't do that one ...."* (Line 223-225)

I concluded that she had a strong sense of herself as powerless and without choice. There was also a sense of solidarity with other women in that she wouldn't want the same to happen to them.

There was an element of 'I told you so but you didn't listen' as she had a history that may have consequences for the birth. However, when she tried to voice her concerns she felt that her voice was not valued or even heard.

From reading the story, it seemed that the meaning she took from the experience of birth was difficult and frightening. She treated the listener as a health professional, perhaps not trusting the boundaries of a less formal relationship. I was aware during the interview that our relationship had settled easily into that of health professional and patient, however she was the first woman I had interviewed and so I felt less able to deviate too much from the written questions in order to create a different performance as interviewer. I was nervous about achieving a balance between appearing either too familiar or too clinical (see chapter seven for further discussion). Although the central character in her story, Annie didn't appear as a main protagonist because she seemed to relinquish and suppress her voice. I wondered if perhaps her voice had been removed by others in the story. Subsequently with family and friends and in the interview, she was able to raise her voice. So there was a sense of transformation and resolution that emerged by the end of the story. However, a pervasive theme of loss of power was evident in the account.

#### **9.3.4 Carla**

Two main themes emerged in this story, firstly around the impact of mastitis and secondly around the support of friends. Carla hinted that she had been stressed in the past and this was exacerbated by repeated mastitis. Her voice felt submerged by the difficulties of getting through each day. Although her mother provided emotional support, it emerged that Carla felt she was required to support her mother too. The

idea that Carla was voicing her feelings as both a new mother and a daughter intertwined in her story. Carla seems to have found it hard to express how she was feeling with her friends and felt that they didn't care about her:

*"and now since I've had a baby they seem to have not they don't really bother....it's strange because you don't like it because people don't bother with you but now I've had a baby you're not bothering with me (laughs)." (Line 91-94)*

Her voice was also not heard by the health professionals as she had been unable to pursue talking therapy. The story appeared to consist of multiple layers where the narrator struggled at the bottom. She rose to the top occasionally (when she felt proud that through her efforts she overcame mastitis and continued to breastfeed), so occasional agency was apparent, but the rest of the story showed an almost defeated narrator or narrator as victim.

The main protagonists in the story were the friends who abandoned her, the mother that she needed to mother and health professionals who forgot her. This story was about someone who didn't make a fuss, or make waves but felt powerless. The story seemed to end without resolution; within the bounds of the interview it seemed that relating her story did not help her make sense of it. Perhaps the story defined who she was, someone feeling trapped by circumstances and loyalties? The story ended with the new people she was meeting at baby groups and this may point to a way of achieving resolution.

### **9.3.5 Donna**

Donna was a very articulate and assertive woman. The story related to the birth of her fourth child. The voice of self was strong in this story, but despite this she was unable to make her voice heard during her birth experience. Donna returned several times to a key part of the story; the fact that she was not noticed by the

midwife and not listened to. The main protagonists were the midwife and her friend, Donna was also a protagonist but despite this, initially she was unable to take any steps towards resolving her feelings. In some ways it appeared that she wanted to move on and at several points she considered the idea of talking to a midwife about her experience. Finally the thought that someone else could be helped in the future pushed her towards going through her notes with a midwife.

The idea of helping others in the future was strong, even though this narrative initially seemed self-focussed. Possibly women balance striving for independence and power and even dominance over others with wanting and needing collaboration. The structure of Donna's story seemed spiral in nature as she re-visited ideas several times. There seemed to be a gradual transformation (perhaps from anger to acceptance) she moved from the idea of not being listened to, towards the idea of speaking up about her treatment. She touched on them and when she returned to them she appeared to have a stronger view about their meaning for her. This story appeared to be about power. Donna positioned herself as a strong woman used to dealing with the world. She appeared to need to distance herself from the emotions of the story; she rationalised about it, repeated key parts and claimed that she wanted to put it behind her and not focus on it. Avoidance of memories related to the traumatic event is an unsurprising finding, since they constitute a diagnostic characteristic of PTSD. An example of her desire to avoid memories can be seen in the following excerpt:

*"some of the time when you deal with it all on your own , if I turned into an emotional wreck and I let everything affect me I'd be a quivering wreck in the corner ...by now" ( Line 418)*

Of course this approach could be protective - she didn't want to think about it because it brought up raw emotions that were difficult to deal with. However Donna

had constructed her story in the way she chose and that construction forced her to think more deeply about her reactions to what happened.

Donna used twenty nine direct quotations; it was possible that she used this device to bring immediacy to the narrative. Alternatively, when she related the story she may have been reliving the experience through the words. Perhaps this illustrates that in fact the events had not been put behind her but she was still living with them and this would be consistent with a diagnosis of PTSD. However, it was also possible that Donna was aware of the performative aspects of her story and the use of direct quotations was part of this.

Donna incorporated smaller sub-plots where she wove a complex theme of relationships throughout. These included; the relationships with her best friend, her mother and daughter, her ex- partner, the GP, the midwife from the current birth and the midwife from a previous birth. It is interesting to speculate about how she was used to interacting within these. It is possible that she felt challenged by the midwife because she didn't react as others had in their previous relationships with her.

I was interested in the way Donna had chosen to present herself and the interactions in each relationship sub plot. She revealed that her main emotion regarding the midwife was anger; this was perhaps because she was rendered vulnerable and powerless by her. This can be seen in the following example:

*"...so she left me stuck on my side exceptionally uncomfortable ummm with my friend in the room with absolutely nothing covering me from the waist down. I wasn't offered a sheet or anything so I've got to say it was the most undignified painful horrific 15 minutes of my life..."* (Lines 40-44)

However, by the end of the story a resolution was achieved because she wanted to move towards going through her notes with a senior midwife.

### 9.3.6 Emma

Emma compared her two births in this story; fifteen themes were developed including dramatic events around both births and her financial difficulties. Despite feeling powerless which could have led to anger, she rationalised that her treatment was related to understaffing. She used powerful imagery and this may show that the events of the first birth were still etched in her mind:

*"I just felt like a piece of meat that I had done its job and they didn't care ...and the problem is that they're understaffed so it's not their fault." (Line 50)*

However, as the story developed a sense of increasing control over her life seemed to develop. She appeared to make sense of what happened and voiced some insight about why she was feeling stressed postnatally.

The key protagonists were her mother and different health professionals she came into contact with. Interestingly, apart from mentioning her partner in the context of the domestic and business situation, he did not appear to be a major protagonist during the births. In terms of her own agency, in the first birth she thought of herself as someone to whom events occur, whereas in the second birth, she was a more active agent and seemed to take control of events. Although postnatally there were a lot of complicating factors, she was able to find ways of coping with the demands of her children. The increasingly active nature of her voice was evident in her suggestions about using social media as a way that women could gain support from each other. Thus by the end of her story she had transformed the direction of the narrative towards helping others rather than herself (by thinking about the usefulness of social media):

*E: "because I'm a Netmums™ chairman and I hold meet ups with mums who are in areas that don't know any mums."*

S: "oh yeh?"

E: "so having people meet up in local areas and do stuff with kids because of that I know other mums and I was on Facebook™ putting up stuff about it and I had them come back to me with their comments of their experiences which made you feel like 'oh its' not just me and this baby ' (laughs) so that..." (Lines 276-284)

### 9.3.7 Faye

In contrast to Emma's story Faye's appeared to be about the unheard voice, there are three parts in the story that show this. Firstly, Faye's birth situation where she was confused about what was happening and was unable to ask to gain information:

*"He was coming out sideways and then all of a sudden before I knew it literally I was being whipped down to theatre, I didn't really know what was going on, I didn't know why I was going down there, no one really told me anything around it..." (Lines 22-25)*

Secondly Faye was concerned about her grandfather passing away and potentially missing the funeral whilst recovering postnatally. The staff seemed to be unaware of this and appeared insensitive to Faye when discussing her induction:

F: "...and like when I was on Fern ward quite a few times ...like the consultant was coming round and he was saying " yeh we'll induce you on Friday " so I was like " I've already told you what that day is"

S: "Ummm"

F: "and like they ...I just thought they would have wrote something on my notes kind of thing? Because he kept coming round and they kept saying it to me and and stuff and like it was just a bit ...it just felt a bit insensitive kind of thing..." (Lines 124-131)

Finally, although she was able to have her voice heard by returning to hospital through the PALs service, ironically when she rang to speak to the head of midwifery her call was never returned. Although her voice appeared to have been suppressed by the maternity system there was an additional element of self-suppression. Later in the account she admitted that she was not the type of person to talk a lot about things and she would struggle if asked to communicate her thoughts by writing them.



The maternity notes appeared to hold significance for Faye, as with other interviewees. She may have expected them to contain explanations of the events of her birth and because she managed to speak to someone at the hospital the objective account of what happened would have been confirmed. However, she did not elaborate on whether she was able to assimilate this into her own version of the story.

There were many health care protagonists in Faye's story who were mainly viewed negatively because they didn't listen to her. Faye's mother was also a key protagonist who appeared to move the story forward and sought resolution for her daughter. She mentioned her partner but only at the end as she began to rationalise and relate her story to the wider world and started to think about what she would advise for others in her position.

### **9.3.8 Gwen**

The structure of Gwen's story was similar to Donna's in that it contained a large number of direct quotations (40). They permeated her story lending immediacy and almost inviting closeness to the situations described. It was also possible that like Donna, Gwen was aware of this and it formed part of the performative nature of her delivery. Both women had a lot to say and didn't really need prompting by the interviewer. Another unusual feature of the way Gwen structured her story was that she included others in the room nine times - this was mainly her baby, but she also drew the present baby into the past account. Although it is likely that this device was unconscious, it also served to bring the story alive, to make it immediate and very relatable to the audience even if they couldn't understand her meaning.

*"...no I wouldn't necessarily tell her everything; she's my mother in law! You know but she's a great point of contact if I need anything and I can't get hold of anyone isn't she (talking to baby)." (Line 404-407)*

Related to the aspect of linking the audience to her narrative, Gwen also sought to conspire with me as her audience:

*"It wasn't as busy the second time round in there. The first time I was there with Tom all the beds were filled, from when I got there to when I left I stayed for five days (whispers- I couldn't wait to get out)" (Lines 437-440)*

Gwen shared some important and personal issues from her past and interwove them through the account of both her births. She returned to these themes several times, which showed their importance to her.

Gwen appeared to exhibit a high degree of resilience as she had had cancer, a traumatic birth and hinted at difficult past relationships but related that she preferred to internalise her feelings rather than share them with others:

*"and then I also think that its' also because I'm just burying it but... (laughs) Maybe I should talk about it more but I just think " no there's no point I can't do anything about it just get on with it" (Lines 78-81)*

*"Outwardly you wouldn't think that I could just sit at home and just cry...and I do I just get very stressed and I have bad nightmares sometimes that things have happened and but you just get up and get dressed and go on to the next day." (Lines 83-87)*

*"And I'm just kind of very good at kind of hiding them into boxes and filing them away ummm" (Lines 391-392)*

She permeated her story with laughter and used metaphor more than any other interviewee. She compared the births of her two children and compared herself with those who have not had cancer.

*"Umm and you know sitting in there you see all these nice healthy mums and you think 'oh please let me carry on being healthy' so that added stress to it." (Lines 337-339)*

Gwen repeatedly described herself as someone who wanted to shut away her feelings about what happened. Although she had a good friend with whom she shared many things, there were limits to what she felt happy talking about.

### 9.3.9 Hanna

Hanna was an articulate woman who hinted at a health services background. Although narrated with a low-key delivery, the story was a drama. There were elements of surprise for the audience that were not revealed initially.

This example relates to the baby having had a stroke before birth:

*"So no wonder he wouldn't sleep on his back because he was always dribbling, and I kept thinking 'oh maybe he's teething' because that's what babies do but it wasn't it was because he'd had a stroke, yeh and it was on his left side so he said that's probably why he doesn't want to sleep on his back because he's pooling and he's choking." (Lines 114-118)*

Whilst this example relates to the revelation that her partner left her before the birth of her baby:

H: *"Yes so I've had all the business of the birth and problems with him and then my ex-partner ..."*

S: *"Awww"*

H: *"So that's all been quite stressful because he left before he was born..."*  
(Lines 161-164)

As with several of the other stories, Hanna's was permeated by direct quotations (63) that could indicate that she still felt that the events were immediate. In contrast to several of the other women interviewed, Hanna had concerns over the current health and wellbeing of her baby. She developed themes throughout her story starting by revealing a little of the impact of the knowledge of her baby's health and working towards a fuller picture. She also used this approach when revealing the split with her partner.

In terms of main protagonists there did not appear to be any key health professionals who may have precipitated a traumatic experience. However the key postnatal protagonists were her ex-partner and her mother, she also mentioned her brother and several friends including one who also had negative experiences to deal with.

There was an element of transformation in the story, however there were many occasions where Hanna was unsure and compared herself to others but there was a sense that by the end she had gained strength and confidence. It is interesting to compare:

*" I found it really bizarre in there as well because a lot of mums would just leave their babies in the crib and just go off and have a shower and I was like, I was like, I would wait for mum to come in..."* (Lines 69-71)

with:

*"Yeh and I have I know I wouldn't have felt so confident without her so and when I talked to most of my friends they don't have so much help so I need to learn to do things by myself (can't hear this bit) but hopefully with that little bit of support I'll be able to ..."* (Lines 397-400)

It also seemed that her voice gained strength and she was able to assert herself in relation to her partner as the story progressed.

Compare:

*" I think that sometimes not having your partner there really feels there's no one to discuss things with; and then when you've got this bundle of joy you can't share it..."* (Lines 181-184)

with:

*"...and like I say if he makes me feel like that... he's always had that control over me so I was like 'you're not going to do that to me now' so I was like..."* (Lines 297-298)

She rationalised her feelings towards the end of the story in relation to writing and her thought processes appeared to be quite complex, in that she was able to stand

back objectively to think about possible implications of the writing on health

professional's views of her:

*"Yeh just not being able to write about how I felt without it sounding like I was going to go and jump off a cliff (laughs,) do you know what I mean? It's like 'oh God am I going to be sectioned here?" (Lines 260-262)*

### **9.3.10 Thematic analysis**

The codes extracted across cases were grouped under the following themes (see Table 9.1. for details); relationship with health professionals, procedures and processes, communication, previous history, perception of self, worries , control, avoidance/ re-experiencing, insignificance, demands on self, resolution, other emotions, relationship with family and friends and factors relating to writing.

Themes that I wished to explore further were communication and relationships, support, complicating factors, the maternity notes and perception of self (including emotions, feelings of insignificance, control, avoidance and demands upon the self). I chose to focus on these initial themes because they appeared more frequently across cases than others. They were described and related to examples from the transcripts. However additional themes which emerged during the process of analysis were; solidarity with other women, the relationship between the stories and prevailing social discourses about childbirth, the women's inability to write, power, resolution, and the importance of predicting factors for PTSD.

### **Communication and relationships**

This could be broken down into communication via different means, written and verbal, communication to friends and family and communication to health professionals. I wanted to extend the topic by incorporating forms of communication experienced during the birth and used by health professionals. The latter category was

chosen because it directly relates to my pragmatic epistemological stance regarding the need for women's voices to be heard by maternity professionals.

A surprising finding in stories which were primarily about birth trauma and its sequelae was the high number of positive encounters with professionals (39 across cases): this is balanced against a similarly high occurrence of women not feeling listened to (37) by their midwives.

Example from Annie lines 34-40:

A: *"...and uhhhh a midwife up there said "ohh you don't need gas and air or anything, you're not in active labour yet how can you be in pain?"I'm trying to explain..."*

S: *"Yeh"*

A: *"and she just wasn't listening that it wasn't probably the labour pain it was the pressure on the joints that was causing the excruciating pain..."*

However many of the women interviewed had not had time to communicate effectively with their labour midwives and felt that the lack of a positive relationship with a midwife had contributed to their lack of satisfaction with the birth.

Example from Donna lines 121-127:

*"...ummm so she had me pretty much half paralysed there. I had no way of moving and I said to her I probably swore I think because ummm yeh apparently 'yes I've had women who've got bad backs' which was her attitude 'yes I've seen it all before' 'yes you've got a bad back but I don't care'" (D voicing what she thinks the midwife is really saying) "'your baby's heart beat dropped' 'Yes but you could have asked me before you just moved me and now I can't move'"*

Example from Emma Line 28-34:

*"...then I got hooked up to the one controlling the contractions, and then I got hooked up to everything, the midwives in the room and everyone just didn't talk to me or anything? and umm I was just there hooked up to all these machines just waiting and then when I was fully dilated it was when their shift swapped over so then they left it another hour when I was fully dilated to actually get him out ...when they were trying to get him out his heartbeat was stopping ...she pressed the panic button and I was given an episiotomy..."*

## Support

In terms of frequency of codes related to support this emerged as the most frequent; however I have chosen to include references to lack of support and effective support. The type of support ranged from sensitivity of work colleagues whilst pregnant:

*"...and my work at the time were great I've just got to take it a little bit more sensibly and they were brilliant , really good work were , they wouldn't even let me carry a box of crisps , I was getting cross about that at the end (laughs) I was like 'it's crisps!' (laughs)..."* (Gwen lines 364-368)

to expectations that friends would be supportive and weren't:

*"...and now since I've had a baby they seem to have not they don't really bother...it's strange because you don't like it because people don't bother with you but now I've had a baby you're not bothering with me (laughs) ..."* (Carla lines 91-95)

to the attentiveness of mothers:

*"Oh yeh, she's really helpful yeh she's been living here since the birth and she'll do anything I want her to so if I need it she'll cook but she doesn't look after him unless I want her to."* (Hanna line 168-170).

The importance of close female friends was also stressed:

*"So if you've got that good set of friends it's it's always good to sit and talk , 'cos sitting and talking with your friends isn't just about coffee and what's on the TV you can talk about pretty much anything if you've got a good enough friend and Sarah's that friend you know she's we can talk about anything..."* (Gwen line 377-380)

Women thought it was important to have someone to talk to about their experiences. This was usually their mother or a close female friend: it was rarely their partner. This was exemplified in Gwen's case, the rest of her story shows a supportive partner who accompanied her to the birth but she was not able to talk to him in the same way as she confided in a close friend:

*"...Umm I do sometimes, not very often because, no offense to my husband I love him to pieces but he's a man who...I don't think he actually listens (laughs) I think it kind of goes in one ear and out the other, I don't think he takes on board what I'm saying seriously and umm..."* (Gwen Lines 149-152)

In Hanna's case because she was the eighth interviewee I felt able to deviate from the questions in order to find out if she had been able to gain social support:

S: *"So do you ever like talk about things with either your mum or close friends?"*

H: *"Umm"*

S: *"About how you're feeling?"*

H: *"Umm yeh I do I'm very lucky because I've got a lot of friends who I can talk to about that and they're not like 'oh yes he's a ...'"* (Hanna, last interviewee, Lines 300-305)

### **Complicating factors**

In women with PTSD it was rare for the birth experience alone to contribute to their condition. This finding appears not to have been previously reported in the literature. Annie, Donna and Gwen all had significant previous health issues, which may have contributed to their perception of the birth as traumatic:

*" ummm a bit angry really because ...um because one of the midwives at the hospital didn't listen to what was wrong at the start, uh because I had an underlying medical condition, and then it all went pretty wrong really...(laughs )"* (Annie Lines 26-29)

*"I've got a herniated disc in my back which means that if I get into a certain position all the nerves lock up and it's exceptionally painful so I had that against me before we went in there plus the fact that ummm my longest established labour was 45 minutes."* (Donna Lines 11-15)

*"and I was conscious in the back of my mind I was also on a high risk for miscarrying with an ectopic pregnancy because I'd had cervical cancer and I hadn't mended as well as maybe they would have liked and umm so there was high risk in that."* (Gwen lines 19-22)

However an unexpected finding was the existence of additional non-medical complicating factors, which added to the emotional burden of the women postnatally.

Emma had problems with the termination of her business:

*"Because we hadn't filed our end of year accounts and PAYE and I had to say 'we have' and they found out, when I rung the accounts people they said they had ...but they hadn't ...so I had about 2 months of trying to sort it out and luckily...finger crossed it's all been sorted now and I haven't been fined anything but when I was doing the questionnaire I was being really stressed out ..."* (Lines 90-94)



Hanna's relationship with her partner had broken down before the birth of her baby:

*"So that's all been quite stressful because he left before he was born and he was asking for contact but I was 'we need to build this up' and that doesn't help as well. But no things are getting better..." (Lines 164-166)*

### **Importance of the labour notes**

In stories about traumatic labour it would be reasonable to expect that items such as pain and fear would be referred to many times, however it was surprising that the maternity notes were referred to as often as these other factors (20 references across cases). It is possible that, for the women, the notes represent a tangible 'objective' account of the birth. Alternatively, it was important to consider whether my presence elicited discussion about the notes because I was perceived as a health professional and was interested in their account of the birth. This was something that was discussed during the second bracketing interview, as it is possible that if they perceived me as a health professional they would have perhaps assumed the notes were important. Additionally though, discussion around the notes was prompted by me as a reflexive response to the direction of the interview. An example of the topic being raised and my concern regarding this follows:

*S: "The hospital does offer like a debriefing service so anyone so any kind of problems they've got they can go back and talk to midwives umm about you know they can have the notes in front of them and go through about" (Donna Lines 307-310)*

*S: "... we talked for quite a long time and she shared her story and her feelings and it was at the end that I suggested... you know ' why don't you go back and go through the notes with the staff they are more than happy to do that' ..." (Second bracketing interview lines 231-234)*

The theme of notes pervades Annie's story and her ideas about the notes transformed from initially not wanting to approach them, to wanting to with support,

almost as if this allowed an honest return to, or appraisal of, her own memories. In

this extract the ambivalence Annie felt towards the notes is illustrated:

A: *" I think you have to be ready for it I think even if I got the notes a few weeks ago I, six weeks ago I still would have been ...unsure about opening them"*

S: *"yes"*

A: *"...I think I would have put them on the table or put them on top of the piano and looked at them for a long time before opening them...so um just facing up to that, reliving that experience, I think I would have done definitely but it would have taken a lot of time to open the notes "* (Lines 352-359)

### **Perception of self and personality variables**

There are many aspects of self-hood and voice which emerged through reading the stories; examples of these are; emotions, feelings of insignificance, control, avoidance and demands upon the self. These are discussed in more detail in the individual accounts. Lack of control over the labour was a feature that occurred repeatedly (25 times over the cases). The relationship between control and postnatal PTSD has been widely reported in the literature. In Donna's case she did not know what was written in the notes and each time she returned to the idea of the notes this seemed to pique her again, I would suggest that this was because her control over the situation had been removed.

In the case of Emma she felt abandoned and not heard:

*"...I had to stay in 4 days but they didn't explain and everyone else was leaving and I kept asking if I could ...asking for days and it just didn't seem to ...I just felt like a piece of meat that I had done its job and they didn't care ..."* (Lines 48-51)

In most cases women perceived that medical professionals had ignored their needs, although they often excused them by suggesting that they were understaffed.

It is possible that in telling the story a re-structuring of memory could take place such that women begin to view themselves differently.

Example from Gwen:

*"Yeh I suppose we all have our own kind of traumas in our lives like um cancer and you know people die unfortunately and umm traumatic births but um you, I suppose it's how you deal with it and um although people think I deal with things very well I think I should probably just literally like I say put it in a box and bury it in the back of my mind ...but it's always there and I ...I'm not sure I think if I started writing things down I might not stop (laughs) ...um because there have been quite a few traumatic experiences that maybe I haven't dealt with from my childhood ..umm and I think once I started it would probably not probably it **would** go on for a while and that's what worries me maybe keeping it locked up is maybe the best thing for me" (Lines 223-232)*

In the above passage Gwen used the narrative to justify her desire to keep experiences buried and separated from other people.

In the examples below from Donna she began to organise her thoughts about the experience during the short space of the interview. The first example is in response to a question asking whether it may be useful to speak to someone regarding the notes:

*"To be honest with you I don't really see the point because if that's the way that she is that's the way that she is. She was wrong in what she did, she was wrong in not listening to me, she was wrong in not reading my notes before I came up or even after I came into the room. She did quite a few things wrong and she was very wrong to go and give a baby who was supposed to be checked over by a paediatrician to a student... to be honest with you wrong, wrong, wrong, wrong and wrong ..." (Lines 77-84)*

Towards the end of the interview she appeared to have changed her mind about re-visiting the notes and it seemed that voicing her thoughts during the interview helped her to see a way towards resolution:

*"(long intake of breath) being able to read all my own notes would be very helpful. Because I can re-analyse and fill in the parts which I don't remember and because there are obviously bits which I ...ur you don't remember all of it and you obviously only see the entire room from your own perspective not from anyone else's but notes written by someone else is gonna be the other perspective and it would be interesting as to what they actually say and have the opportunity of doing that, that would actually be very good for me " (Lines 344-351)*

Wertz et al. (2011, p. 288) described a similar response in a cancer patient and refer to a rational overdrive that was able to 'transcend uncanny emotions'. In the example selected, the client was using a coping strategy from her childhood, which

had allowed her to cope with unpredictable emotions by adopting a reasoning strategy that could be referred to as a defence mechanism. I felt that this may have been what Donna displayed in the two extracts above, where she responds to a traumatic birth. She displayed a similar coping strategy and even referred to herself as a cold and heartless bitch (in jest).

Narratives are rarely straightforward and may consist of interweaving elements. This is particularly true when I reflect upon the interview with Faye; whilst listening to her story I was very aware of interweaving issues. When narrators tell their story they probably already have a picture in their head of the key parts, however the audience is always one step behind. I was aware of feeling that I didn't really know what type of birth Faye had had because she referred to the operating theatre and, because she had had twins, I assumed she must have been referring to a Caesarean section. It only became clear later that this was not the case. Another issue that permeated the narrative was her concern about not being able to attend her grandfather's funeral. This was a highly significant event in her life, but the midwives had not picked up on this whilst she was in hospital. In the following extract Faye expected the staff to be sensitive to her recent loss, but she felt that they were unresponsive and insensitive to her emotional needs and perhaps this contributed to a feeling of voicelessness:

*"...then I didn't come out until the Thursday and the funeral was on the Friday so ...and the thing is as well a lot of people came round and they were 'oh yeh you probably won't get out 'til the weekend' and like they knew the situation as well..."*  
(Lines 119-122)

## Solidarity

Despite the highly personal nature of the stories there were occasions where the narrator seemed to extrapolate from her experience to other women. There were several occasions when women suggested that they should report a midwife or go through the notes in order to help others avoid what they had to go through. Thus Emma had used social media to support others:

E: *"...maybe with the social media side of things because I'm a Netmums™ chairman and I hold meet ups with mums who are in areas that don't know any mums"*

S: *"oh yeh"*

E: *"So having people meet up in local areas and do stuff with kids because of that I know other mums and I was on Facebook™ putting up stuff about it and I had them come back to me with their comments of their experiences which made you feel like 'oh it's not just me and this baby ' (laughs) so that..." (Lines 276-284)*

and Donna eventually wanted to go through her notes so that the midwife in her story could obtain guidance for the future treatment of women:

*"...but there's not a massive lot I can do about it and getting her into trouble will absolutely solve nothing. The only thing which I would like is the fact that she should learn to listen to her patients ..." (Lines 180-183)*

## Women's responses to writing

As can be seen from the interview transcripts, the women did not spend a lot of time discussing why they did not write about their experiences. It is possible that they did not write because of the level of avoidance inherent in PTSD symptomatology. However it may also be due to the association of shame and guilt with their experience, which is discussed more fully later. Example from Gwen:

G: *"Putting it down in words isn't quite so easy for me I'm not sure how I ...I'm just not very good at putting it into words on paper. I can talk to anybody ...oh no problem but actually putting it down on paper I actually found it quite hard"*

S: *"Umm"*

G: *"I don't know why I just find it very hard to do that"*

S: *"Almost like it makes it more concrete I suppose"*

G: "I suppose ...yeh its evidence that's out here you know whereas me just, well I mean ok this is slightly different but just chatting to someone you know they might forget it like 10 minutes later"

S: "Yeh"

G: "But yeh actually physically having it there and its written it's there you know people can read it again and (can't make out) I don't know I didn't feel quite so comfortable about writing it" (Lines 99-112)

In the example from Emma she may have experienced guilt and shame because the birth experience didn't live up to her previous ideals:

"...I didn't want to have to ...the reason I chose to go into the birthing centre was that I ...not that I would go 'oh I need the drugs' but if I was in there I knew there probably would be a higher chance of me opting for all the stuff." (Lines 67-70)

Several women seemed to brush the idea of writing aside and some experienced an equivocal reaction about their feelings after the birth of their baby. In the following extract Hanna expressed her dilemma that the writing may seem either too glib or too desperate and so this prevented her from writing about it:

"H: Umm (long silence 3-4 seconds) it's hard to put this into words, I think umm, I think it's hard to say on one day how you feel because one day is completely different to the next I could have a bad night with him and I'd just be feeling hanging and I'd know I had to go out to a doctor's appointment or something and you'd think 'I don't think I can go', you do, you think like the whole world, everything's up against you. But when you're getting up it doesn't matter what time you're getting up and getting out it was good, almost as if like I didn't used to have to get up and get out the house. Yeh, it was fine but I think when you start to write and put things down on paper, when you write these things down then you think well I don't feel like that all the time, it's just for a small amount of time I do and it's really hard to ...hard...it's a bit like when you write a diary you look back and you think - 'well that was rubbish' but at the time, it may have been, but now you've got something to compare it to and you think well it's just like been completely different ...

Yeh, just not being able to write about how I felt without it sounding like I was going to go and jump off a cliff (laughs) do you know what I mean? it's like 'oh God am I going to be sectioned here?' it's like (laughs) I think sometimes it's like you write it out and look at it and you think 'God it sounds really flowery' and actually it's almost like glossing over the real rough times and when you write about the rough times you think 'well actually no the rough times they've only been about 5% of the day but they seemed really bad at the time' ..." (Lines 239-267)

## Social discourses around childbirth

In repeatedly returning to the women's stories I was conscious of the importance of recognising that they were historically and culturally bound. It is important to consider the current discourses around childbirth, as although they may not have been explicitly acknowledged by the interviewees, they will have inevitably shaped their views to some extent. There are many prevailing discourses relating to childbirth, however one of the most insistent must relate to fear. The avoidance of pain is shown in this extract from Gwen's story:

*"...The first one was very uncomfortable very long very, very painful and I didn't really want to go down that route again although there's obviously certain things you can't do anything about, but umm I didn't have an epidural the first time round, because I didn't like the idea of the drugs being in my body and what it might do to the baby so this time around I said " No give it to me ...I'm not going through it again " you know " I'll have anything but I don't really want a forceps delivery ..." (Lines 187-193)*

In this excerpt from Emma she compared the births of her first and second babies showing that she had a ideal birth in mind:

*E: "With her I felt it was a fantastic experience it was the birth I wanted with my first one because it just went according to plan so I I wanted a water birth"*

*S: "Yeh"*

*E: "So I wanted to not use any form of umm pain relief"*

*S: "Yeh "*

*E: " And I managed to do that and it yeh managed just to... it seemed like I gave birth in the water pool and the midwives in there they didn't ...they checked the heart beat a few times but they didn't say anything, but they didn't like rush me or anything it felt like I felt like I was just delivering with me and my mum and my husband..." (Lines 3-13)*

## 9.4 Discussion

### 9.4.1 Communicating and being able to express thoughts/social support

Carla was an example of someone who felt unable to express her feelings; Castle et al. (2008) report that parents who have a positive attitude towards the idea

of expressing themselves received higher levels of social support, but those who regard discussion of emotions as evidence of personal weakness received less social support. Since levels of social support correlate with postnatal depression it could be important to encourage women to discuss their feelings. Carla mentioned occasions where she felt unable to fully express her feelings with those around her thus this could have had an impact on her recovery. However, Carla, Emma and Faye in particular cite the relationship with their mothers as being very important postnatally. The changes to the mother daughter relationship operate at both an existential and practical level. The re-negotiation of mother daughter roles has been explored by Bailey (1999) who described middleclass women's views on changes to their relationships after the birth of their first baby. Often they reported a strengthened relationship, deeper connection and a shared understanding with their mothers. Mitchell and Green (2002) also found that young single mothers placed a high value on the mother-daughter bond as a way of coping with everyday life.

In terms of midwife support and communication it has long been known that maternal satisfaction is correlated positively with a supportive midwife relationship (Morgan et al., 1998). This has led to proposals that caseload midwifery should be favoured because continuity of care can facilitate the development of a relationship with the birthing woman (Williams et al., 2010). Indeed Czarnocka and Slade (2000) found that predictors of PTSD post childbirth can include poor relationship with a midwife and that health care professionals need to be aware of this issue in practice. This was supported in a recent quantitative study by Furuta, Sandall and Bick (2014). Figley (1985) in early research on trauma suggested that those who have experienced a traumatic situation often find it easier to deal with if they perceive it as 'an act of



God', rather than something which depended upon how health professionals had acted. Thus it may be harder to cope if women perceive that the health professional is to blame.

#### **9.4.2 Complicating factors**

Additional complicating factors such as relationship breakdown (Hanna), business difficulties (Emma), and health issues (Gwen) were evident in so many of the women's stories that it is possible that they contributed to their subsequent development of PTSD symptoms. A number of authors have suggested antenatal and perinatal predictors of PTSD in postnatal women (O'Donovan et al., 2014; Modares et al., 2012; Soet, Brack and Dilorio, 2003; Czarnocka and Slade, 2000) but there is little reported literature assessing postnatal complicating factors such as those cited above. Clapp and Beck (2009) report that due to emotional numbing caused by PTSD or depression post trauma patients may perceive lower levels of social support. However in the above examples the complicating factors were reported by the women as objective events and not in relation to perceived social support. Additionally the complicating factors could have contributed to their inability to write when asked to do so. The results from the current study although not contradictory to previous research suggesting that past trauma is the largest single predictor of postnatal PTSD (O'Donovan et al., 2014) would seem to suggest that the presence of complex post-trauma complicating factors needs future research .

#### **9.4.3 The notes**

There appears to be little in the literature regarding the importance of labour notes to women after childbirth, although it has been acknowledged that women may

find it useful to go through their notes with a midwife at a later date. Formal debriefing is not, however, recommended (NICE, 2007). Indeed while many hospitals offer a 'birth afterthoughts' or listening service as described by Rowan, Bick and da Silva Bastos (2007), it seems that there is little consistency of approach between hospitals. Phipps (2001) found that 50% of antenatal women asked more questions as a result of having hand held notes and levels of confidence, control and responsibility were enhanced, but it is not known if these findings are replicated in postnatal women. Baxter, McCourt and Jarrett (2014) conducted a review of postnatal debriefing services. Although they also found that there was wide variation in what was offered by maternity units, many women found the service useful. There is little research around the opinions of women regarding their maternity notes and their importance or significance. However it is interesting to postulate a potential relationship between those who wanted to access their notes and those who didn't. Kashdan and Kane (2010) suggest that individuals who were able to face their trauma, rather than avoid it, experienced greater growth and meaning in their life and this perhaps could be the case for women such as Donna or Faye. In a recent study involving interviews with postnatal women, Coates, Ayers and DeVisser (2014) found that women valued opportunities to process what had happened to them after a traumatic birth; it may be possible that for many re-visiting the notes represents a powerful means of facilitating this.

#### **9.4.4 Perception of self and personality variables**

In chapter five I discussed the rationale behind selection of specific questionnaires, this related to the importance of certain predictors for PTSD after a

traumatic event. A factor which has received little research interest in postnatal women is alexithymia. Alexithymia has been defined as the inability to describe, process or express feelings (Taylor, Bagby and Parker, 1997). Faye was particularly unwilling to talk in depth about her experience and subsequent feelings. When gently encouraged to comment she revealed that she had always found expression of thought hard, whether written or spoken. It is possible that an underlying tendency for alexithymia may have accounted for this (DeClercq, Vanheule and Deheegher, 2010) and this could have made her vulnerable to PTSD after the traumatic experience.

In chapter five the importance of attachment patterns was also discussed, this along with other personality variables can contribute to an individual's level of resilience. Resilience has been described as a dynamic process which enables successful adaptation when exposed to adverse events (Rutten et al., 2013). Gwen in particular seemed to have experienced considerable past trauma during her life. It was possible that this could have increased her vulnerability to PTSD after childbirth (Boorman et al., 2014). She hinted at the interpersonal nature of past trauma and also expressed a desire to shut away feelings associated with the memories. This may be consistent with a guilt and shame reaction which has been found to be a more significant indicator of PTSD than a pain based or single incident reaction (DiMauro et al., 2014). However, it appeared that Gwen was still able to function well as a mother and in adult relationships and was keen to move on with her life, which on the whole she evaluated positively. It appears that there may be a dynamic interaction between previous trauma and resilience (Mautner et al., 2013). Resilience is a complex trait which is moderated by attachment pattern, the experience of positive emotions, feeling purposeful and also genetic factors (Rutten et al., 2013). However, using the

example of Gwen one could postulate that her level of resilience may have protected her from a greater degree of psychological morbidity. Ong et al. (2006) suggest that resilient individuals draw on coping strategies which focus on positive emotions such as benefit finding and reappraising events in a positive light. Furthermore they suggest that humour is also important and this was especially evident during the interview with Gwen. Other authors have proposed that some individuals access transformative coping strategies whereby they benefit from utilising spiritual and creative resources after experiencing trauma (Corry, Lewis and Mallet, 2014). It is not known if this occurred with Gwen but could potentially explain differences in resilience between the women interviewed.

Attachment style may also contribute to women's vulnerability to PTSD. It is possible that those women who were not securely attached were unable to see the midwife as a professional from whom they could gain support and this would have led to a greater degree of fear regarding the birth experience and an increase in anxiety. Ayers et al. (2014) suggest that PTSD symptoms following traumatic birth can be linked to an avoidant attachment style and specifically that avoidant women are more at risk of PTSD. Thus avoidant women would not only be unable to seek support during labour, which could potentially reduce their acute stress levels, but after the birth avoidance would contribute to their experience of PTSD.

#### **9.4.5 Solidarity and benefit finding**

Referring to relationships between mothers, in the case of Donna a tension existed between support, condemnation and using her own experience to help others. This issue is explored by Fisher and Moule (2013), who used past research by

evolutionary biologists on primates to suggest that tensions exist between mothers and their friends. They report on sociological research which highlights a complex mix of jealousies and subtle competition underlying the apparently supportive mother/mother relationship. The importance of accepted norms is also reported by Peters and Skirton (2013), who suggest that women in mother and baby groups, which initially seem supportive, may set certain expectations about behaviour and subsequently condemn those whose behaviour does not meet the expectations. The possible advantages of peer group support postnatally have been explored by a number of authors with equivocal results. Cupples et al. (2011) found that postnatal peer mentoring of women in a socially disadvantaged area did not improve health outcomes for mothers or babies, whereas Coe and Barlow (2013) found voluntary befriending useful in reducing ante and post natal depression in mothers. Fenwick et al. (2013) also trialled emotional support via midwives postnatally, which was generally positively appraised by women. The advantages of such a service over peer support would be the experience of trained professionals. However in an era of increasing demands on midwifery resources, this model may not be practical to introduce. Undoubtedly this is an area which merits further investigation especially since, as has been shown in the current study, many women seem to have an altruistic inclination, having experienced a difficult labour themselves.

Some of the interviewees such as Emma seemed to have already demonstrated their altruism by, for example, setting up a supportive blog and by contributing to 'Netmums™'. I was also aware of the possibility that, in the same way as I had drawn attention to the labour notes in the interviews, I was also 'constructing' their altruism by the questions I had included. One question asked if they had any suggestions

which could help other women in their situation. I reflected on this in my reflective journal account after the second bracketing interview with my supervisor. I link my Pragmatist approach with the possibility that my own research findings will be useful for local women, however this has inevitably influenced the questions I asked them:

*"Cornish (2009) states that 'From a pragmatist perspective, the proof of the value of ideas is in their practical consequences for action' I feel strongly that it is important that my findings are acted upon at a local level and as a practitioner involved in services for postnatal women there are ways in which I can influence support but also influence practice. However I am conscious that this Pragmatic drive may have actually started to influence the direction of my semi- structured questioning!"* (Extract from reflection after second Bracketing interview 6.6.14)

This demonstrates how qualitative researchers are intimately bound up in their own findings (Jootun, McGhee and Marland, 2009).

Frank (2000) suggests that narratives could be categorised as taking the form of restitution, chaos or quest. I would argue that although elements of chaos and subsequent restitution are evident in several women's stories, quest emerged in the form of seeking to help others. However an alternative explanation of the quest theme may be that the women were actively seeking to find benefit after their traumatic experiences. Park and Helgeson (2006) discuss Taylor's (1983) cognitive adaptation theory as a possible mechanism for benefit finding after trauma. Taylor posits that traumatic events affect an individual's previous ideas about their safety and understanding of their world. One way of adjusting to the change and restoring the ideas or beliefs is thought to be by discovering benefits about the trauma. Thus for postnatal women such as Donna, the benefit could be that, by speaking up about a particular midwife who she perceived as causing the trauma, she may directly impact upon the experience of subsequent labouring women and thus prevent others from having a similar experience to her's.

The situation emerging from Gwen's story appeared to be a lot more complex. She had experienced a number of health related and personal issues in her past and wove them through her story. Miller (2000) suggests that people don't make sense of events in their lives in isolation. There is also a sense of co-construction with others involved in their lives as well as the influence of events from the past and projected ideas about the future. However what is interesting with Gwen was that she preferred to avoid the trauma by not thinking about it and, according to Kashdan and Kane (2010), this could affect her ability to find benefit from her experience.

#### **9.4.6 Inability to write**

Katzir and Eyal (2013) suggest that when survivors of trauma are asked to step outside the experience (for example when taking part in writing therapy) to express their emotions about it, if their primary emotions are guilt and shame rather than anger and sadness they are unable to benefit from the intervention. My contention is that, if the primary emotions experienced after the trauma are guilt and shame, women would find the idea of writing too difficult. Barrett (1995) suggests that guilt and shame may be experienced when people consider that what they experienced deviated from the accepted societal norm and this may have been occurring for some of the women interviewed. Although the current study did not ascertain quantitatively whether guilt and shame were predominant emotions associated with PTSD in this cohort, there is evidence from the interviews that guilt was experienced. This finding conflicts with that of Lancaster, Melka and Rodrigez (2011), who suggested that guilt is a unique predictor of PTSD in men, whereas disgust and sadness are stronger predictors of PTSD in women. They go on to postulate that there is a possibility that

exposure to different types of precipitating event results in different emotional reactions. This then, is an aspect that merits further study with postnatal women.

Tracy and Robbins (2004) suggest that individuals experience guilt and shame if their experience did not live up to their own ideals. One of the disadvantages of the medical model of childbirth is that women are positioned as consumers who are able to choose their ideal birth (Malacrida and Boulton, 2014). This could mean that women feel responsible for the choices they make in birth and thus feel guilty if the outcome did not meet their initial ideals. Whilst choice in childbirth seems desirable, in reality women often become aware that their choices, decisions and awareness of risk, influence the outcomes they experience. So by choosing or doing the 'right' things they hope that they will achieve the birth they desire. However Malacrida and Boulton (2014) argue that this is a feminist issue because in this model women are rendered responsible for the birth outcome despite being situated in a medicalised and essentially powerless environment.

Another aspect of the guilt or culpability argument is that it may be easier to write a story where you are the hero rather than a failure. Women may have high expectations of the birth process and their ability to birth 'normally'. However, if they subsequently experienced unexpected interventions they may view themselves as failures. In writing about the experience it is possible that they would re-live the experience of failure and so may wish to avoid this. The dominant social discourse which focuses primarily on the physical health of mother and baby (Fisher Hawk and Fenwick, 2006) would perhaps stop them questioning their own perceived failure, because ultimately they had a healthy baby. Indeed Edwards and Conduit (2011) suggest that because the prevailing medicalised Western view is that acceptance of



medical interventions results in reduced risk of morbidity or mortality for mother and baby, thus there is a societal expectation that the mother's original ideals about birth will be subsumed in deference to medical advice in order to avoid unnecessary risk (Liamputtong, 2007).

#### **9.4.7 Social discourses**

Earlier I discussed the possibility that Faye could have been alexithymic. Another explanation about Faye's reluctance to speak about her experiences could be related to the traditional social narrative around childbirth. Bruner (2004) states that the narrator is aware of the relationship between their story and their community, thus if they feel that their story doesn't align with the prevailing norm then they will not tell it. This could also be in operation in the case of Gwen regarding her desire to lock away experiences and feelings. This could suggest that when stories do not equate with the dominant social narratives around childbirth women feel they cannot be truthful about their own contradictory experience. The 'lay narrative' referred to by Miller (2000) is the expected social narrative around childbirth, which may be very different from an individual's experience and women may feel uncomfortable raising a different narrative.

Lothian and Grauer (2012) suggest that women approach childbirth with fear. They propose that previous generations didn't fear it in the same way because it took place at home and was visible to the rest of the family. In the West birth is now hidden in hospitals, which already have an association with being places of ill health and fear. Women's main experience of birth is likely to be from television, internet, media, or horror stories from friends, rather than from first-hand experience with

family members. This serves to intensify ideas about pain and being unable to cope without medical intervention. Thus it is possible that young women don't talk very much about birth because of the fear of pain. Fisher Hauk and Fenwick (2006) suggest that women are strongly influenced by contextual discourses such as fear of the unknown, horror stories and fear about the wellbeing of the baby, and these in turn relate to the birth environment that may involve a lack of trust in staff and a disempowering experience. They argue that the prevailing medical model has led to the medicalisation of childbirth in the developed world and also to the de-skilling of women about the birth process.

Edwards and Conduit (2011) report that information which women hear from their friends concerning birth is frequently about negative and disempowering experiences. Birth stories indeed, hold a lasting and vivid legacy for many (Mercer, Green-Jervis and Brannigan, 2012). Interestingly Hoerger and Howard (1995) contend that women have become passive recipients of childbirth information and do not seek out or question the stories they hear from those close to them.

De Koninck and Parizeau (1991) argue that medicalisation doesn't just impact at the personal level but also at the level of social discourse, strengthening the view that women are incompetent regarding childbirth. Thus if childbirth has been socially constructed in the West as uncontrollable and frightening, it would therefore justify medical intervention. So at a deeper level this supports the idea that technological knowledge should be lauded above other forms of knowledge. Even when personal accounts contain stories of empowerment and achievement Parratt and Fahy (2011) suggest that the unique embodied way of knowing exemplified in the childbearing women is disregarded by dominant Humanist Western philosophy. Further to this

Fahy (2002) advises that the obstetric and androgenic discourses are only dominant because they are sanctioned by society.

Walsh (2010) suggests that there are alternative discourses such as natural childbirth, and woman centred models. But because the dominant Western paradigm is positivist and empirical in nature it has led to a polarising of belief in either the medicalised or the natural approach and that leaves no place for lived experience, which may be equivocal. In terms of the transition to motherhood, this tension is also apparent; Prinds, Hvidt and Buus (2014) posit that women could adopt a new biomedical model of self postnatally which emphasises either physical risk or the alternative romanticised model of motherhood.

#### **9.4.8 Power**

During analysis it became evident that Annie had little power over what happened to her especially once she was in the hospital environment. This resonates with a Foucaultian view that people submit to operations of power in hospital settings because they allow themselves to be observed and judgements are passed about them over which they have no control (Oliver 2010). In most stories that we tell about ourselves we are the agent and have agency: in Annie's story agency was apparent in all the other protagonists apart from the narrator. Lack of agency could be equated with marginalisation. This idea has been explored by Charmaz (2008), who posits that marginalisation occurs when individuals experience the imposition of boundaries, when they don't conform to accepted norms (in this case within the maternity services). However, Fahy (2002) contends that the system may be set up to offer women seductive powerlessness, where they can submit and not need to engage or

take responsibility for their actions and that some may see this as a preferable option. Also as previously mentioned, I was aware that Annie had been a busy professional and Bailey (1999) suggests that women in middle class occupations who identify their career as a way of expressing their sense of self find the transition to motherhood more of a challenge than those who don't see themselves in that way and this could have affected her.

In Donna's case she seemed to be rendered powerless by the midwife even though she was a forceful and articulate woman. According to Jacobson (2009), the violation of dignity is more common in an asymmetrical encounter where one actor holds more power, authority, knowledge, wealth, or strength than the other. Thus if Donna was in a situation where the power balance was in favour of the midwife it is unsurprising that she felt vulnerable and without dignity. Czarnocka and Slade (2000) found that low perceived control in labour was positively associated with increased levels of PTSD and Furuta, Sandall and Bick (2014) concur, but suggest that recall bias may also operate, in that those with symptoms of postnatal PTSD may recall a greater lack of control than there actually was.

#### **9.4.9 The power of the story**

Morgan (2000) summarises the use of a narrative approach in psychological therapy. She suggests that therapists are able to collaborate with clients in order to discern which elements of a story have been developed and which have been rejected in order to form a coherent life narrative. In the same way I would suggest that although my role was not that of therapist, interviewees chose how they wished to represent themselves. This was not without complexity, as Hanna for example, used

her story to reflect on how she felt professionals may see her. Smith and Sparkes (2006) suggest that stories themselves are analytical, in that the framework of the story includes analysis, and this was exemplified in Hanna's construction of her story. Bruner (2004) suggests that narratives have the power to restructure memories to the extent that the narrator becomes the story. He states that when people re-tell their life story the story itself gains the power to reshape how they think about themselves. This was noticeable on several occasions with the women interviewed.

Stories are also complex; Holloway and Wheeler (2002) argue that narratives are rarely simple or linear and many consist of interweaving stories. The issue of multiple layers within any story is endorsed by Miller (2000), who advises that life is not lived or experienced as a neatly ordered set of events. Miller (2000) suggests that narrators have a strong innate drive to impose order and create a congruent narrative. Thus in the case of Faye the theme of her grandfather's funeral was obvious to her because it was important to her, however it was not so apparent to the staff.

#### **9.4.10 Resolution**

Carla's story in particular appeared unresolved and I reflected upon the fact that I found this uncomfortable. I re-read the bracketing interviews and I felt I could link this with my clinical self, who needs to find a solution for those in distress. The reality is that resolution is not always possible, especially after a relatively short space of time. Indeed Beck (2005), who offered the chance for women to submit their traumatic birth stories to her using the internet, found that some women were still deeply affected by the birth many years later. Su et al. (2010) investigated factors associated with lack of resolution of PTSD in earthquake survivors. They found that

PTSD was more likely to be unresolved three years after the trauma if physical injury had taken place. This could also be a consideration for postnatal women who have experienced physical morbidity as a result of the birth. They also found that if individuals had reduced interest in social activities, memory or attention impairment, or scored highly on the re-experiencing cluster of PTSD symptoms, they were less likely to experience resolution. It is not known if these findings would be replicated in a cohort of postnatal women but could be an area for future study.

#### **9.4.11 My reflections**

Andrews (2008) refers to an experience centred method of narrative interviewing, by which she means that as the researcher listens to more stories their questioning becomes more focussed on where they think the narratives live. In my experience, I feel that I became aware of themes such as the importance of female friendships and so this became a theme. I was also conscious of my dual role as an antenatal educator and researcher, which influenced my desire to signpost women for further support. Schon (1991) introduced the idea of reflection- in - action where a professional alters their response by reflective consideration of the individual situation. However to maintain integrity as a researcher it was necessary that continual reflective reassessment took place. Rolls and Relf (2006) discuss the importance of this when dealing with material and situations with which we already have a lot of experience. Thus because of my clinical role I hold complex assumptions around women and birth and it was important that I was aware of these whilst interacting with women and when analysing the data. This is discussed further in chapter seven.

## **9.5 Strengths and Limitations**

Reflection, reflexivity and the use of an independent second coder have increased the rigor of the qualitative phase of the study (Angen, 2000). The qualitative research has been limited by only using semi-structured interviews on a small population of white middle class women. There is a possibility that the use of focus groups or invited blog entries could allow the collection of rich data from a wider demographic range of women (Carter and Little, 2007).

Owing to the nature of narrative analysis, I have not attempted to create overarching explanatory theory from the findings (Corbin and Strauss, 1990). It is possible that by using a technique such as grounded theory for data analysis a more unifying or explanatory theory could emerge regarding the importance of past experience, personality, birth experience, complicating factors and support from analysis of women's experiences of postnatal PTSD.

## **9.6 Summary of Contribution to Body of Knowledge from Qualitative Phase**

### **9.6.1 Theory**

Each woman interviewed had experienced additional stress inducing incidents in her life postnatally. These factors have not been reported in the midwifery literature in relation to postnatal PTSD. The impact of these other factors on the experience of PTSD could be extremely important.

Although not a new finding women in the current study valued the support of key female figures in the postnatal period. Predominantly women talked about the support gained from their mothers. In agreement with other authors (Morgan et al. 1998; Czarnocka and Slade, 2000) the findings show that the relationship with midwives during labour and in the immediate postnatal period has a crucial impact on women's perceptions of her labour.

Symbolically the labour notes appear to exert a powerful influence over women even months after the birth. Previous authors have recommended that midwives offer some type of birth afterthoughts service where notes can be re-visited with women. It appears that some of the women in the current study were unaware that this was possible.

The current study highlights the complex interaction between past experience, possible attachment style and possible alexithymic tendencies as potential vulnerability factors for postnatal PTSD.

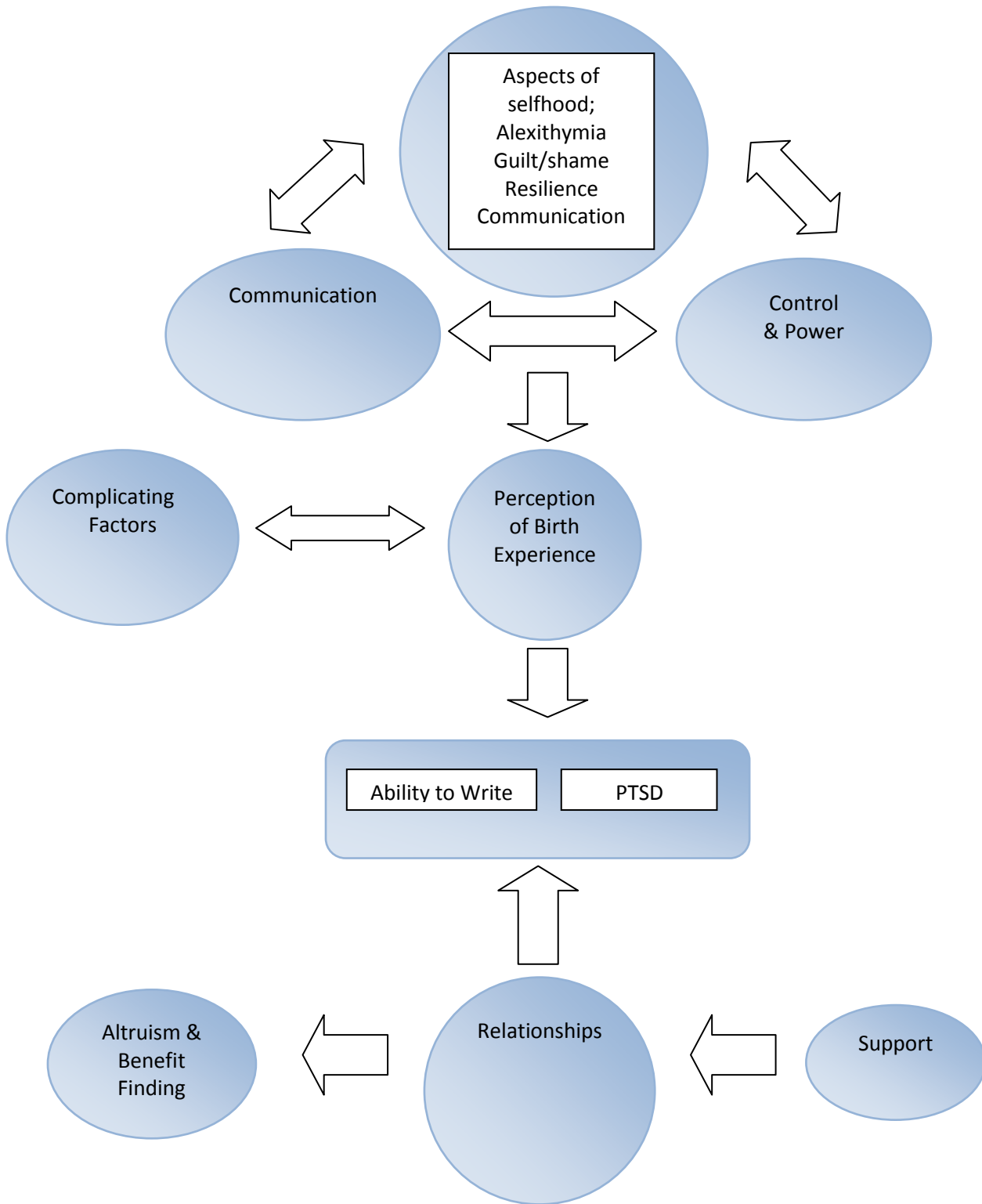
It has been postulated that women's desire to write about their birth experience may have been suppressed by feelings of guilt and shame which meant they did not feel able to re-visit the birth details. This finding could have been affected by the powerful influence exerted on women by contrasting social discourses around birth which may have impacted upon their expectations.

Many of the women interviewed were altruistic about helping others in a similar situation. This was exemplified by their desire to use social media sites not only to express some of their own experiences but to support others.



### **9.6.2 Mapping of main findings**

Figure 9.3 summarises the main qualitative findings showing that women in the study came to the birth experience with certain personality vulnerabilities which impact upon their view of themselves, their sense of control and their ability to communicate. These factors could all affect their vulnerability to PTSD. The experience of PTSD may be exacerbated by complicating factors but relationships with key individuals could ameliorate the impact on the woman. The main findings from the qualitative phase were used to contribute to an overall mapping structure which also included those from the case study and the quantitative phase.



**Figure 9.3 Mapping of main findings from qualitative phase of the study**

### **9.6.3 Methods**

The current study thoroughly explored the bracketing technique and the technique of narrative analysis in a way that has not previously been reported in the midwifery literature.

### **9.6.4 Practice**

The main implications for midwifery practice are detailed below:

In agreement with previous authors (Czarnocka and Slade 2000; Morgan et al., 1998) women in the current study were shown to perceive the relationship with the midwife during their labour as important. All midwives need to appreciate their key role in a women's perception of her labour. As this has been a consistent recommendation over several decades, there is still a need for increased emphasis during midwifery training, on building rapport and empathy with women during this important life transition.

Midwives should be encouraged to assiduously signpost the availability of birth afterthoughts service and other forms of postnatal support.

### **9.6.5 Research recommendations**

As a result of conducting this study I would recommend the following future studies:

1. Research investigating gender differences with regard to emotional responses to and predictors of PTSD.
2. A longitudinal study investigating the importance of concomitant stressful events as predictors of postnatal PTSD on a peri-natal population of women.

3. A study designed to investigate the number of women with postnatal PTSD using social media as a means of support, the efficacy of midwifery signposting and an exploration of women's and midwives' views of the usefulness of social media as a suitable form of support.

## **10 Case Study**

### **10.1 Introduction and Background**

According to Stake (1995) when researchers choose a case study approach they are both engaging in a process that involves learning about the case and, by means of that engagement, they are necessarily producing a case themselves resulting from their own interpretation of the case. Thus case studies usually comprise qualitative enquiry and sit within an interpretivist paradigm (Angen, 2000). Radley and Chamberlain (2012) assert that the disadvantage of traditional quantitative methods in psychology is their generalisation of findings to individuals. The generalisation may not necessarily accurately represent the experience of a particular individual. The corollary to this is that case studies which describe an individual well, should not be used to extrapolate to the wider population, but rather to inform or challenge theory (Abma and Stake, 2014).

Stake (1995) highlights two main types of case study. These are; intrinsic, where the case generates research interest, and instrumental, where the case is analysed in depth in order to contribute to theory. In practice, however he admits that researchers often blur the distinction between the two and by studying one case in depth they then feel able to generalise. In the case presented here I hope that the in depth analysis undertaken will enable some theoretical insights to be drawn. Perhaps the view of Radley and Chamberlain (2012) suits my pragmatic approach better, in that they see the case study as a way to re-think theoretical assumptions about the way

social life is understood, rather than just as an alternative method by which data can be obtained.

The case study approach acknowledges complexity and needs to be firmly holistic, cases are ultimately about human stories which may involve individuals seeking meaning in their lives (Abma and Stake, 2014) and these in turn are situational and have multiple influences (Stake, 1995). Thus in presenting the case I have tried to provide enough background to enable the reader to be aware of the context. Since I was interested in the narrative or story that a woman tells around their birth experience, I felt it was important to allow the case to 'tell its own story' as far as possible, but I have also acknowledged the difficulty of fully achieving this as the final presentation of the case is determined by the researcher (Stake, 1998 p. 93). To add sufficient context for the reader, I endeavoured to explore the text extensively (Reissman, 2008) in order to reach an in depth understanding of this particular individual's conceptualisation of her birth, her ideas about writing therapy and how the events around the birth impacted upon her life.

Crowe et al. (2011) describe the qualitative case study approach as a detailed in depth data collection involving multiple sources of information in order to increase internal validity. In the present study I have collected data from a set of thirteen questionnaires exploring personality and social support, expressive writing transcripts and an interview. This approach enabled me to ascertain how one woman made sense of her birth experience, how personality variables impacted upon this, how writing changed her story and how she perceived the experience after writing about it.

Case researchers need to be aware of inhabiting two roles; 1) observer or reflector and 2) reporter, or interpreter, in order to maximise learning from the case.

However, both roles are influenced by our own often unconsciously recognised beliefs, ideas and background; Stake (1995) would suggest this is consistent with the constructivist paradigm. I was also aware of my need as a researcher to pre-code, continuously interpret, classify, elucidate any patterns, cross check the data, and also to reflect as the data were explored. Thus it was important that I was continuously aware of the impact I made on the data throughout the 'construction' of the case. Stake also asserts that it is important to know how much to tell of the case, to decide upon the boundaries and think about why and how they should be set (Stake, 1995).

Epistemologically I am conscious that I have sought to construct knowledge by analysing the case, but as a researcher by interacting with the data I have necessarily changed it, and so I need to be aware of this in presenting the case (Boblin et al., 2013). Additionally the reader is likely to place their own personal interpretations on what they read as well (Smith and Sparkes, 2006). This latter point is particularly interesting given that the case I have selected reports on a woman writing her birth story so she has selected what to tell others and in turn so have I.

### **10.1.1 Context**

The case was selected purposively because the participant had completed the set of thirteen quantitative questionnaires at baseline and after participating in expressive writing, written about her birth on three occasions and finally taken part in a semi-structured interview. The woman who was selected as the subject of this case study was a first time mother in her mid-twenties, a U.S. citizen married to a British citizen and living in the UK. Prior to having the baby she had been a professional with a degree working in a responsible job requiring good communication skills. She had a

vaginal unassisted birth and her partner was present at the birth. She reported that the baby had gained weight normally and slept normally and had not needed to be re-admitted to hospital after initial discharge. She lived in a small rural town in a small apartment which was well ordered, neat and clean when I visited. She intended to have a natural birth with few interventions, this did not happen. She also intended to breastfeed but after struggles and complications she changed to mixed feeding. She was someone who sought information prior to the birth by attending non-NHS antenatal classes with her partner. When interviewed initially, the recording device did not work and the participant agreed to take part in the interview again when this became apparent.

## **10.2 Methods**

I used a sequential approach; quantitative data were collected via questionnaires and qualitative data via written emotional disclosure and semi structured interview. These methods have been fully described in chapter six.

### **10.2.1 Data analysis**

The transcript from the interview and the two writing therapy accounts were subjected to narrative analysis. However because this was a bounded case I chose some key issues to explore (Stake, 1995) such as the importance of communication, the importance of support, how the events changed the woman's perception of herself and the impact the event made upon her future. As part of this I sought patterns in the data in order to develop the issues and triangulated key observations between the three sources of data (the questionnaires, interview and written accounts). Finally I was able to interpret the observations and link to theory.



In order to extract as much information as possible from the data, I thought it was important to employ a many layered approach, borrowing from Labovian (1972) methods as well as Josselson (2011), Squire (2008) and Reissman (2008). Josselson (2011) suggests an overall reading to determine the structure of the account and then a re-reading to pick out themes and voices of self. After the initial reading of the three written disclosure accounts and the semi structured interview I summarised them in order to determine structure. Labov (1972) suggested that researchers should take account of the setting, initiating events, responses of the main protagonists, the consequences of their actions, reactions, any evaluations made and returns to the present. In addition Pennebaker and Seagal (1999) have suggested that those who benefit maximally from expressive writing tend to use a high proportion of emotion related words in the first writing session and increase their use of cognitive words over the course of several writing sessions. Thus I assessed the use of emotion related and cognitive words over the writing sessions. Additionally, I felt it was important to perform an in depth analysis of the content of all three transcripts, compare codes and ascertain if certain codes were lost or gained over the three sessions. In addition to showing how the story had developed each time it was told, this strategy would reflect changes to the narrator with each re-telling. The codes were then distilled into themes in order to step back from the detail and compare the fabula to the initial reading of the accounts. Finally, I related each re-telling to the context and the quantitative results.

Conceptually I saw the analysis as an hour glass shape, at the start I took an overarching view enabling me to be aware of many grains of sand making up the narrative, as I progressed to the centre or thin waist of the hour glass I was able to

appreciate the detail of each grain, towards the end I became aware again of the many other components contributing to the narrative and moving it ever onward over time.

## **10.3 Findings**

### **10.3.1 Background, setting and context**

This first time mother, to whom I have given the pseudonym Becky (aged 21-29), was recruited from the postnatal ward of a local maternity unit a few days after she had given birth. She was sent a set of questionnaires one month later and was identified as having PTSD as a result of the birth experience. She was subsequently sent instructions about how to engage with internet based expressive writing. The first writing session took place just over six weeks after the birth of Becky's baby and the second writing session took place two weeks after the first session. The third writing session took place fifteen days after the second. The second set of questionnaires was then administered. Becky was interviewed six months after the final writing session; the interview was designed to ascertain whether she perceived the writing as helpful and whether her ideas about herself had changed over time.

I had met Becky previously as she had attended an antenatal class I had conducted. This may have contributed to her decision to take part in the study but I was careful to maintain boundaries and respond to her as a researcher in this context. This is important as a prior relationship could lead to over disclosure on behalf of the participant and confusion over role distinction for the professional (McConnell- Henry et al., 2009-10; Wilde, 1992).

After being recruited to the study I met Becky and her partner on the postnatal ward because they had been kept in the hospital for a number of days. When I saw her

she seemed overwhelmed and worried, she seemed to be struggling to cope and did not feel supported by the midwives as she had been offered conflicting advice. Her partner was present but very quiet and didn't seem to be interacting with her, this also appeared to be contributing to her frustrations. I spent about 20 minutes talking with her.

I interviewed Becky in her own home six months after she had written about her birth experience. She appeared organised; the room was tidy and clean; as was the baby. She appeared very tired. The baby was quite demanding throughout the interview, she was very attentive to the baby. A section of the coded interview transcript can be found in Appendix xiii, Tables 10.1, 10.2, 10.3 and 10.4 show summaries of the three writing sessions and the semi structured interview transcript.

### 10.3.2 Summaries of writing and interview sessions

**Table 10.1 Summary of first writing session**

Becky starts by saying she has few expectations however she felt she **wanted a natural birth** with little or no pain relief. She was **disappointed** that she couldn't go to the birthing centre partly as she had not been told about prior booking. Becky describes a **long slow start to her labour** at home lasting 33 hours; she was **advised not to go to hospital** when she rang the midwives on two occasions during this time. Becky felt **she needed advice and support**; initially she was receiving this from her partner. She eventually went in to hospital and found she was 2 cm dilated the shift changed and the second midwife recommended she return home. **Becky was nervous about this** because she lived a long way from the hospital. At home she **laboured alone** whilst her husband slept. Becky returned to the hospital; the **midwives were unsupportive and not encouraging**. She had made progress to 5cm at home but this didn't continue in hospital she felt the **staff did not look at the notes** and were **unaware of her wishes** regarding the type of birth she wanted. The labour was accelerated and Becky felt like she was **forced to accept diamorphine**. She **wished she had refused** and been clearer in her birth plan about her wishes. She tried to remain upright but couldn't. After this she felt she **lost control** of the situation. Her **memory became patchy**. She **tore badly** and lost a lot of blood whilst in second stage and needed stitches but was given no local anaesthetic for this. She was in a **lot of pain and no one noticed**. After the birth they **kept her in hospital for a long time**. Initially she was observed every hour in case she needed a transfusion, and then they took blood tests over 2 days. Eventually she was **given a transfusion**. By the **fourth day she was anxious to go home but** the baby had lost weight and they had to stay in, she **tried to breastfeed for a further 3 days**. Eventually she was allowed to mix feed. She felt **unsupported by her husband and they argued**, as she felt he didn't understand her frustrations, she felt **judged by the staff** but realised her baby needed more milk to gain weight. She **felt guilty** as she had wanted to breastfeed. She also felt **alone, emotional and cried a lot**. She felt **unsupported by friends and family** although Facebook™ had been useful. She wants to have another baby but would **not want to lose control** again even though she is now probably regarded as high risk because of what happened. She **regretted not voicing her needs** during the experience.

**Table 10.2 Summary of second writing session**

Becky has been thinking a lot since the last session in order to ascertain why she found the experience hard, she dismisses the pain and lack of partner support and decides **she is disappointed in herself**. She **regrets** many things and feels she could have prevented them by **standing up for her wishes**. She regrets that she didn't write a better birth plan. She feels she has now **missed out on the chance of a water birth** as she is high risk after the first birth. She feels she could have achieved her water birth if she had **voiced her needs at the time**. She feels she **should have talked more with her partner** so that he could have advocated for her more. **B regrets giving in to the pressure** to have diamorphine because she feels it caused a cascade of interventions culminating in her **forgetting the birth** of her baby, which she will never be able to get back. **She blames herself** for not getting what she wanted and **feels like a failure** despite having a healthy daughter.

**Table 10.3 Summary of third writing session**

Becky has come to realise that others as well as her were responsible for what happened and how she felt about her birth. She tries to be **objective and rational**. She is mainly concerned now about the **inconsistency of care** from pregnancy through labour and when she had to stay in postnatally she saw many midwives and **never felt able to establish a meaningful relationship**. She blamed this on the lack of communication around the early breastfeeding issues. She returns to how she felt during the process and how she **felt let down** by staff and **unsupported by her partner** as they didn't listen properly to her or understand her needs. She felt **abandoned** by friends and family who did not visit during the extended postnatal stay in hospital. She thinks again about the labour and how her husband was asleep and the midwife visited fleetingly but was not encouraging. She still finds things **difficult** but has been **put off going to the GP** by her experience of the previous contact with health professionals. She has learned a lot about herself but feels her **relationships have been effected** by the birth.

**Table 10.4 Summary of interview transcript**

Background- In participant's home young baby present who is making noise (teething) mum has already told her story but the recorder wasn't on so have asked her to repeat as much as she can.

Becky thought initially it was **hard to start writing** but once she started it **became easy**, she struggled more in one session where she didn't know what to write this made her **think first** but with the **others she knew what she would say** before she started. She wrote in a word document first so she could then easily transfer it to Survey Monkey so there were no problems with the technology which had sometimes been a problems in her professional life. She felt the **writing had helped her organise her thoughts better** she thinks **she would voice her needs more in the future** and write a birth plan down as she **didn't feel listened to** before. She really wanted a water birth and felt **pressurised** into having diamorphine. She **regretted not talking** more with her husband before so he could advocate her wishes better. She **didn't like her first midwife** but did like the one who delivered the baby. She met a **lot of different midwives** postnatally and some were good and some bad, she felt her feelings about having to stay in hospital but not wanting to were **not really understood**, she **had conflicting information** and felt she **could have trusted herself more** if she had been at home. She felt **under scrutiny** and that she was **doing things against her will** whilst in the postnatal ward. She **valued the writing** because it helped her **see the event as a whole**. The writing helped her realise she had been **blaming herself** for the things that happened to her but others were to blame too. It was helpful also because she could think about **what she may do in the future** if it was to happen again. Re writing was useful because the first time it vented her emotions but subsequently she was able to be more clear headed.

### **10.3.3 Narrative - what Becky was saying**

Becky expressed herself eloquently, she portrayed her story factually and mainly in sequential order. The events surrounding the birth were traumatic and unexpected. Although lack of control was evident, fear was not. In the second writing

session and the interview she reflected back on the experience and sought to find answers. There was a very strong theme of self-blame. Despite the fact that an observer could conclude that health professionals and family let her down she seemed not to perceive this until the last writing session. The voice of self started confidently and as she had progressively more contact with midwives and health professionals this confident voice was lost. Paradoxically, the rational self was lost even though she was capable of rationally sequencing the events. The rational self appeared to re-immerge in the third writing session. Her initial reflections showed that she was less objective and did not attribute blame proportionately, preferring to attribute it to herself. This was particularly evident when she chose to regret giving in to the pressure from the midwife to have diamorphine, notably she regretted giving in, but did not seem to resent the pressure. This finding is consistent with her high locus of control (see Table 10.18). I would suggest that there was not a theme of resolution, in both the second writing session and the interview she seemed to end on a positive note. In the second writing session she cited her healthy daughter, in the third writing session she appeared to link her reluctance to seek help at this point to her lack of faith in the health professionals she previously dealt with, and in the interview she cited the positive impact of the writing. However the audience was left feeling that this was a device employed to suit the listener or reader and to bound the story rather than to show that the issues raised were fully resolved. The audience was left unsatisfied initially because she sought to resolve the experience by primarily implicating only herself, however even when she began to rationalise in the third writing session and acknowledge the impact of the other protagonists in the story she still appeared unable to move on and was unable to seek help to do this.

In the next stage of the analytical process I wanted to start to break down the story to explore who was involved, the main events and factors contingent upon them, consequences of actions taken in response to events in the story, as well as reflection and repetition within the main narrative. Hall (2011) breaks narrative accounts into three main parts the fabula (events), story (plot and sense making) and text (the words making it up). In the first analysis I was mainly concerned with the fabula and how that was constituted.

#### **10.3.4 Structural analysis**

A short excerpt of the structural analysis for the first writing session is included below.

**Table 10.5 Structural analysis of writing sessions (first session excerpt)**

| Line number  | <b>Writing 1</b><br><b>Main protagonists=P ,Initiating events=E</b><br><b>Complicating events/ factors=F, Action taken=A</b><br><b>Consequences of action=C, Repetition=R</b>   | Codes  |
|--|---|--|
| 01<br>02<br>03<br>04<br>05<br>06<br>07<br>08<br>09<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40 | Before the birth I had very few expectations, I wanted to try to use as little pain relief as possible and use the pool if it was available. I wanted to go to Bracken, but I was recommended to go to labour ward as my BMI was right on the edge of the cut off point for being higher risk. When they recommended this they didn't tell me that if I wanted to go to Bracken I needed to be booked in in advance and so when I was ready to go to hospital and called into Bracken that's when I found out that I had no choice, but to go to labour ward. When my labour started I was at home by myself as my husband was working overnight, it was about 8pm on the 11th of November. I decided not to call him to come home as I was coping fine and the contractions were only about 30 seconds long and coming about every 5 minutes. This continued for about 5 hours then stopped. After about 14 hours my contractions started again and for a while they seemed to be about the same as the day before. I felt very unsure as to if I was actually in real labour or not, but was calm and a bit excited. After 12 more hours my contractions seemed to be more frequent and lasting for longer so I decided to phone the hospital and wake my husband up. He is a very sound sleeper and it took me about 5 minutes of calling his name and shaking him to get him to wake up. I remember laughing and thinking the situation was very funny. While he went out to clean the car I phoned the hospital and found out that I couldn't go into Bracken. I was very disappointed by this and was feeling very uncertain of what I needed to do. Labour ward told me not to come in until my waters had broken or I was having trouble coping with the pain and needed something for it. I found this very unhelpful as I wanted to try to go without pain relief and just using my TENS machine and then the pool. I started crying as soon as I got off the phone with them and felt like I didn't know what to do. My husband was very supportive and told me he was happy to do whatever I needed. After about 2 more hours I decided I wanted to go in to see how far along I was. I phoned back in and said I wanted to come in they told me again about waiting til my waters broke or the pain was unbearable. Even though I wouldn't have classed the pain as unbearable I told them I was coming in. The midwife who saw my when I got in was | P1<br>P1<br>P2<br>F1<br>P2<br>P1<br>A1/P2<br>E1/P1<br>P3/F2<br>A2<br><br>P1<br><br>P1/A3/A4<br><br>A5/P1<br>E2/C1<br>P2<br><br>C2<br><br>C3/4<br>P3/A6<br><br>P1/A7<br>P2<br><br>P1/E3/P4<br><br>E4/P1<br><br>P5/A5<br>P1/C4 |

On the whole the fabula, or portrayal of events was sequential and there were

many protagonists however I chose to refer to any protagonist identified as 'they' by



the narrator as P2. I highlighted sections where the narrator rationalised, put things into perspective or projected into the future. There were nineteen initialising events in total; broadly these related to the narrator going into the hospital, the progress of the labour, the interventions, the blood loss and its sequelae, the long and frustrating stay in hospital including transfusions and the difficulties around breastfeeding.

Towards the end there were occasions where Becky chose to mention some complicating factors which may have contributed to her unhappiness, for example her relationship with her partner:

*"During my whole time in the hospital I felt very alone, even though my husband came in every day I felt like he didn't want to be there and we ended up fighting towards the end of my stay in the hospital". (Lines 145-148)*

and the perceived lack of support:

*"Most of my friends and family live in the US so they couldn't be here for my, but I felt very isolated and almost like I had been abandoned when I was in the hospital".*

*"..... I had very few visitors while I was there; only one friend and my husband's sisters and father. My friend only came for a short time and ended up not turning up the second time she said she was coming". (Lines 167-74)*

The inclusion of these reflections formed the story and her voice within it.

There were fifteen actions taken; at the start of the account they were taken by Becky but as the fabula progressed action was taken by other protagonists and a strong feeling of not being listened to pervaded the story. The narrator felt throughout that she was not listened to and was doing things to please the midwives (her voice was more apparent). When she first went to hospital this was in evidence:

*"I had written down in my notes about using the pool and no pain medication, but I am sure she didn't look at that. I was very emotional and felt like I wasn't really being listened to so I didn't bring it up". (Lines 55-58)*

This experience was repeated later in the labour and after the birth:

*"After she had asked about three times I gave in and said yes and let her give me diamorphine. Before the birth I was sure that I didn't want this as I really didn't want to feel sleepy..... I was annoyed that she kept asking and felt like I ended up saying yes just so she would stop asking". (Lines 61-66)*

*"The other people kept asking if they were hurting me and the doctor doing the stitched kept saying no it's me. I remember just hoping he would finish quickly as I was in so much pain". (Lines 92-94)*

In the following excerpt she relates her dissatisfaction whilst trying to establish breastfeeding postnatally:

*"I felt like if the log showed something other than what they expected they were going to get mad at me. I was afraid of doing anything wrong. I wish I had been more firm and stood up to them more about her feeding". (Lines 158-161)*

Further into the account Becky rationalised more and returned to some events out of sequence or projected to the future (this was where she chose her individual emphasis). Becky appeared not use metaphor at all and similes only rarely. There was very little repetition in the story, however there was some comparison to others for example:

*"One of my friends later told me that they had said in their birth plan not to offer them medication unless they asked for it. I really wish I had done that as I would have been fine". (Lines 70-73)*

In the second more reflective writing session initiating events were hardly referred to apart from pain and having diamorphine (refer to Appendix xiv for tables showing structural analysis of the second writing session). The main protagonist was Becky, she referred to herself nineteen times and the only other people she directly referred to were her partner and the midwife, who persuaded her to have diamorphine against her wishes. Becky referred to three complicating factors pain, support of husband and diamorphine. However mostly she referred to her own actions or lack of action and the consequences of these. The main consequence was

regret and the feeling that she could have prevented things from taking the course they did:

*"Most of the regrets I have about Lucy's birth are things I could have prevented. I hate that I have regrets. I regret that I wasn't strong enough to stand up for what I wanted".* (Lines 10-12)

According to Hall's (2011) work, Becky created a story around the fabula. The actions she regretted were, not being strong, not speaking up about her wishes, not being clearer in her birth plan about her wishes and giving in to the offer of diamorphine. The account ended with strong actions about herself; she felt self-loathing and a sense of failure. Interestingly one consequence mentioned right at the end was her healthy daughter and the account could have ended with this perhaps directing us and her to a happy ending or a sense of resolution. However, this was dampened by the final phrase containing the only simile in the account:

*"In the end I have a beautiful healthy daughter so it did turn out for the best, but I still feel like a failure".* (Lines 30-31)

The third session (refer to Appendix xv for the structural analysis of third writing session) showed a marked increase in the number of consequences of actions which occurred in the story (21), this would seem to suggest that Becky had time to relate the events to their consequences for her in the longer term. She ruminated about the situation and the lack of positive relationships with staff emerged as a key issue for her. This however, is not a surprising finding given that Williams et al. (2010) suggest that caseload working in midwifery equates with higher levels of maternal satisfaction and Morgan et al. (1998) and Czarnocka and Slade (2000) report that women value the relationship that they have with their midwives during and after labour. As demonstrated in the following extracts:

*"I think one of the hardest things was the inconsistency of care..."* (Lines 12-13)

*"It was also hard to establish a relationship with the people looking after me..."*  
(Lines 16-17)

*"When they came to do my obs' they would ask if i had eaten and most of the time I said no but I could tell they weren't really listening as they just said ok and went onto their next question".* (Lines 38-39)

Because she returned to key parts of the story she referred to herself a lot (eighteen times), the complicating factors expanded to include the lack of support experienced and the loneliness she felt. The actions related to all protagonists including her husband who told her what to do, which she did not perceive as helpful.

### 10.3.5 In depth coding

At this stage I wanted to move further in to the text and content of the story and so content coded the writing sessions and the interview transcript in order to firstly determine the detail in each account. Subsequently codes were grouped under themes and compared with codes and themes from the interview transcript. Whilst working through each session it became important to know how the story had developed so I highlighted the changes i.e. which codes were lost or gained through the process.

Table 10.6. shows the coding frame for the first writing session

**Table 10.6 Coding frame for writing 1**

| Code | Description                     | Frequency    |
|------|---------------------------------|--------------|
| Ad   | Feeling abandoned               | 153, 169     |
| Ag   | Amusing                         | 20           |
| Ah   | Avoiding health professionals   | 48           |
| Al   | Alone                           | 44, 145, 171 |
| Am   | Assumptions made by midwives    | 115          |
| An   | Annoyed                         | 65           |
| Ao   | Action taken by others          | 59, 150, 156 |
| Ar   | Afraid of doing the wrong thing | 160          |
| As   | Action taken by self            | 18, 30, 33   |
| Aw   | Worried about advice given      | 123, 132     |
| B    | Birth plan                      | 70,          |
| Bd   | Demands of the baby             | 134          |

|           |  |   |
|-----------|--|---|
| Bt        | Being told what to do  | 49, 50, 74, 78, 131, 143, 156, 164, 186, 187, 188 |
| Bw        | Wanting to do the best for the baby                              | 133   |
| Cc        | Lack of confidence in self                                       | 144, 155, 187, 189                                |
| Cd        | Condemned  | 159   |
| Ch        | Lack of choice   | 08,22   |
| Ci        | Conflicting information  | 39  |
| Cl        | Lack of communication  | 05, 54, 57, 138                                   |
| Cm        | Calm   | 15  |
| Cn        | Losing control of the situation                                  | 76, 81, 155, 182, 183, 184, 187                   |
| Co        | Complicating condition   | 03,   |
| Cr        | Crying   | 27, 137, 154, 154                                 |
| Ct        | Hard to concentrate  | 86  |
| Df        | Feeling defeated   | 155   |
| Do        | Disappointed/outcomes  | 07,22, 101, 122, 124, 128                         |
| Dr        | Doing the right thing for the individual                         | 83, 130   |
| E         | Expectations about the birth                                     | 01, 26, 63, 68, 129, 161, 175                     |
| Ec        | Excited  | 16  |
| Ed        | Feeling encouraged   | 84  |
| El        | Feeling emotional  | 58, 150   |
| Em        | Feeling empowered  | 11, 185   |
| Fg        | Feeling guilty about actions                                     | 136, 151, 177                                     |
| Fh        | Feeling a failure  | 136, 143, 151                                     |
| Fi        | Importance of family/friends                                     | 171   |
| Fj        | Feeling judged by health professionals                           | 49, 52, 139, 157                                  |
| Fp        | Feels like a bad parent  | 144   |
| Fl        | Feeling in control   | 186   |
| Fm        | Feeling disempowered   | 50, 52, 55  |
| Fo/family | Feeling let down by friends                                      | 173, 174  |
| Fr        | Frustration  | 19, 117, 127, 163                                 |
| Fx        | Feeling defective  | 179   |
| G         | Giving in to pressure from professionals                         | 61, 65, 74  |
| Hc        | Hard to cope   | 125, 170  |
| He        | Helplessness   | 92  |
| Ho        | Hoping it would all be over soon                                 | 93  |
| Hr        | High risk  | 03, 181   |
| Ic        | Importance of communication                                      | 109, 121, 163                                     |
| Ie        | Feeling isolated   | 169, 176  |
| Io        | Importance of support from others                                | 168, 174, 176                                     |
| Ir        | Importance of continuous care                                    | 163, 179  |
| Is        | Strong ideas about ideal birth                                   | 02, 22, 26, 56, 70, 129, 190                      |
| Iv        | Insensitive  | 114   |
| Iw        | Worried about the impact this birth will have on subsequent ones | 182   |
| K         | Not knowing what was happening                                   | 73, 90, 121                                       |
| Kd        | Didn't know what to do   | 28,   |
| L         | Not feeling listened to  | 49, 52, 58, 90, 113, 123                          |
| Lc        | Lack of confidence in health professionals                       | 91, 163   |
| Ld        | Feeling let down by health professionals                         |   |
| Le        | Lack of encouragement  | 54  |

|    |  |                                   |
|----|--|-----------------------------------|
| Lf | Looking to the future and how the experience impacts upon it | 176, 182                          |
| Li | Lack of information  | 05, 08                            |
| Mc | Good midwifery communication /care                           | 33, 83                            |
| Md | Making decisions   | 48                                |
| Mh | Hard to remember parts of event                              | 82,85, 98                         |
| Mv | Midwifery advice   | 143, 164                          |
| Nj | Feeling the need to justify decisions                        | 49, 164                           |
| No | Notes  | 56                                |
| Np | Not wanting to repeat the past                               | 176                               |
| Ns | Not enough support from family                               | 168                               |
| Oe | Overtaken by events  | 87                                |
| P  | Positive spin  | 191                               |
| Pa | Partner  | 19, 68, 118                       |
| Pc | Concerned about partner                                      | 10, 46, 124                       |
| Pf | Fighting with partner  | 43, 147                           |
| Pn | Pain   | 43, 73,90, 91, 94                 |
| Pp | Physical problems  | 65, 76, 87, 88,104 ,140, 179, 182 |
| Ps | Feeling powerless  | 90                                |
| Pu | Feeling unsupported by partner                               | 120, 146                          |
| Re | Respect for certain health professionals                     | 83                                |
| Ri | Repeated interventions                                       | 109                               |
| Rk | Reflecting upon key information given by midwives            | 107, 186                          |
| Rl | Reliving the experience                                      | 188                               |
| Rm | Poor relationship with midwife                               | 03, 51, 54                        |
| Rp | Feeling reassured  | 37, 110                           |
| Rt | Regrets  | 190                               |
| S  | Stressful  | 181                               |
| Sa | Sense of achievement   | 185                               |
| Si | Importance of social media                                   | 170                               |
| Sp | Supportive partner   | 28,                               |
| Ta | Tense atmosphere   | 153                               |
| Tc | Taking control of the situation                              | 160                               |
| Ti | Tired  | 77, 86, 104, 150, 155             |
| Tn | Not thinking clearly   | 74,                               |
| Tp | Talking to partner   | 67                                |
| U  | Unable to do anything  | 138                               |
| Uc | Uncertain  | 15,23                             |
| Ue | Unsure about what was happening                              | 15, 44, 133, 189                  |
| Ui | Unable to take anything in                                   | 98                                |
| Un | Unhelpful information  | 25                                |
| Up | Unprepared   | 69                                |
| Us | Not feeling understood                                       | 52, 64, 92, 116, 123, 124, 159    |
| Uu | Unsupported by staff   | 178                               |
| V  | Verbalising wants and needs                                  | 59, 67, 72, 92, 160, 187          |
| Wb | Worries about baby   | 94,105, 128, 138, 151             |
| Wc | Wished she'd communicated with health professionals          | 67, 72, 160, 188                  |
| Wf | Worried about information given                              | 40                                |

## Key Themes

- Expectations about the birth, Strong ideas about ideal birth
- Communication problems in terms of not being listened to, not able to verbalise, feeling professionals had made judgements about her

Table 10.7 summarises the codes extracted which related to communication.

**Table 10.7 Codes relating to communication**

|  |                                |   |
|--|--------------------------------|---|
| With health professionals                | With family                    | Arising from self                                   |
| Avoiding health professionals            | Feeling abandoned              | Alone   |
| Assumptions made by midwives             | Feeling let down by friends    | Afraid of doing the wrong thing                     |
| Being told what to do                    | Not enough support from family | Feeling judged by health professionals              |
| Lack of communication                    | Fighting with partner          | Losing control of the situation                     |
| Losing control of the situation          | Feeling unsupported by partner | Importance of communication                         |
| Feeling judged by health professionals   | Supportive partner             | Not knowing what was happening                      |
| Giving in to pressure from professionals |                                | Not feeling listened to                             |
| Not knowing what was happening           |                                | Unsure about what was happening                     |
| Not feeling listened to                  |                                | Verbalising wants and needs                         |
| Lack of information                      |                                | Wished she'd communicated with health professionals |
| Poor relationship with midwife           |                                | Not feeling understood                              |
| Unsure about what was happening          |                                |   |
| Unhelpful information                    |                                |   |
| Poor relationship with midwife           |                                |   |

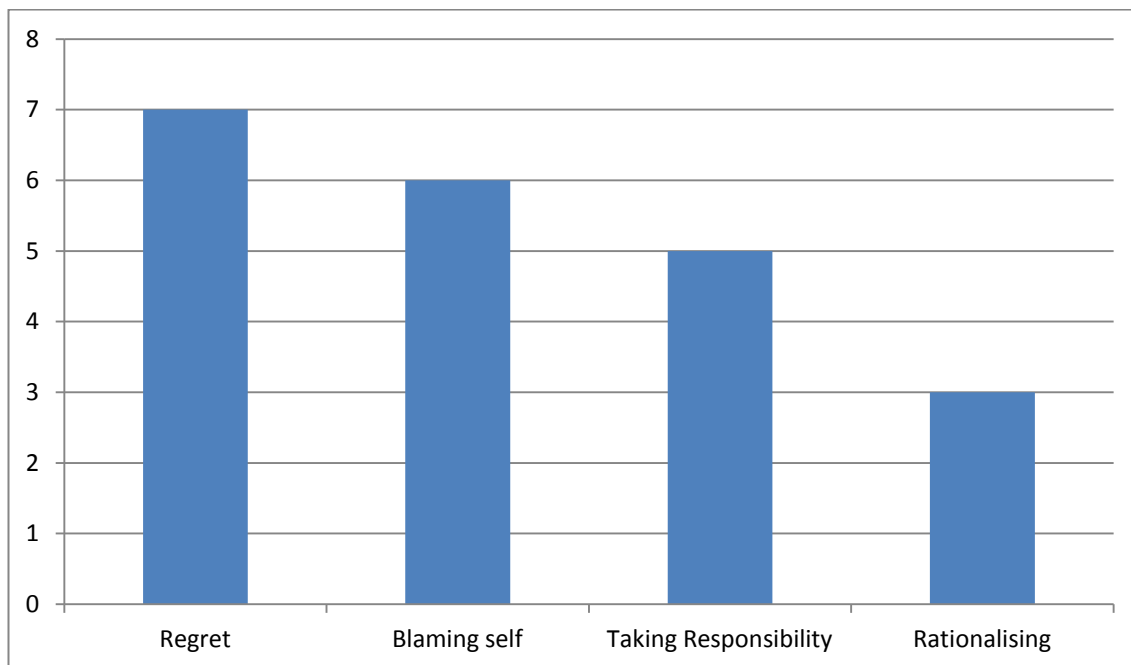
Table 10.8 shows the coding frame for the second writing session.

**Table 10.8 Coding frame for writing 2**

| Code | Description  | Frequency                  |
|------|--|----------------------------|
| As   | Actions taken by self  | 15, 26                     |
| Bl   | Blaming self   | 07, 11, 14, 26, 28, 30     |
| Cn   | Losing control of the situation                              | 30                         |
| Cs   | Comparing self to others                                     | 07, 08                     |
| Cw   | Coped well with pain   | 03,                        |
| Dy   | Disappointed in self   | 07                         |
| Do   | Disappointing outcome  | 06                         |
| Dp   | Feeling deprived of the experience she wanted                | 18                         |
| E    | Expectations about the birth                                 | 23                         |
| Ew   | Ending up doing the very thing she didn't want               | 23                         |
| Fh   | Feeling a failure  | 29, 31                     |
| G    | Giving in to pressure from health professionals              | 22                         |
| Hr   | High risk  | 17                         |
| Hs   | Hatred of self   | 29                         |
| Ic   | Importance of communication                                  | 21                         |
| Is   | Strong ideas about ideal birth                               | 17, 23                     |
| Lf   | Looking to the future and how the experience impacts upon it | 17                         |
| Ls   | Linking to other people's stories                            | 08                         |
| Lt   | Lack of personal strength                                    | 12                         |
| M    | Making excuses   | 09                         |
| Md   | Making decisions   | 13                         |
| Mh   | Hard to remember parts of the event                          | 24                         |
| No   | Notes  | 16                         |
| P    | Positive spin  | 31                         |
| Pa   | Partner  | 04                         |
| Pi   | Importance of partner  | 21                         |
| Pl   | Planning   | 16                         |
| Pn   | Pain   | 03, 14                     |
| Pu   | Feeling unsupported by partner                               | 04                         |
| Ra   | Rationalising feelings about the event                       | 08, 13, 19                 |
| Rh   | Reflecting on what was hard                                  | 02,                        |
| Rn   | Taking responsibility for negative outcomes                  | 07, 11, 12, 15, 19         |
| Rt   | Regret   | 11, 12, 12, 16, 20, 22, 27 |
| Sm   | Feeling she missed out                                       | 24, 25                     |
| Th   | Thinking about the situation - revisiting it                 | 01                         |
| Ti   | Tired  | 24                         |
| Tp   | Talking to partner   | 20                         |
| V    | Verbalising wants needs and wishes                           | 15, 19                     |
| Wc   | Wishing she had communicated with health professionals       | 15, 19                     |
| Wh   | Worried that she could have done more                        | 09                         |



Figure 10.1 indicates that the rationalising theme was less in evidence than a strong theme of self-blame and regret about her own actions.



**Figure 10.1 Frequency of main codes in second writing session**

Table 10.9 shows the coding frame for the third writing session.

**Table 10.9 Coding frame for writing 3**

| <b>Code</b> | <b>Description</b>   | <b>Frequency</b>     |
|-------------|--|----------------------|
| Ab          | Admitting things to self                                     | 06                   |
| Ad          | Feeling abandoned  | 49                   |
| Al          | Feeling alone  | 52, 57, 57, 62       |
| Bl          | Blaming self   | 06,08,               |
| Bt          | Being told what to do  | 40                   |
| Cc          | Lack of confidence in self                                   | 27                   |
| Ci          | Conflicting information                                      | 16                   |
| Cl          | Lack of communication  | 27, 41, 48, 64       |
| Cr          | Crying   | 35                   |
| Db          | Disappointed in the behaviour of others                      | 05                   |
| Dy          | Disappointed in self   | 08,13                |
| Eu          | Unable to eat  | 44                   |
| Fi          | Importance of friends  | 50                   |
| Fj          | Feeling judged by health professionals                       | 29                   |
| Fo          | Feeling let down by friends                                  | 50                   |
| Fv          | Everything feeling unreal                                    | 55                   |
| G           | Giving in to pressure from health professionals              | 62                   |
| Ht          | Stopping being hard on self                                  | 10                   |
| Ic          | Importance of communication                                  | 16,26, 41, 62        |
| Ie          | Feeling isolated   | 52                   |
| If          | Feelings of insignificance                                   | 23,31                |
| Ig          | Feeling ignored  | 31,67                |
| Io          | Importance of support from others                            | 21, 37, 50, 68       |
| Ir          | Inconsistency of care  | 16                   |
| L           | Not feeling listened to                                      | 19, 25,31, 47        |
| Le          | Lack of encouragement  | 65                   |
| Lf          | Looking to the future and how the experience impacts upon it | 69                   |
| M           | Making excuses for others                                    | 3                    |
| Nn          | Needs not met (by partner)                                   | 36, 60               |
| No          | Notes  | 18,33                |
| Ns          | Not enough support from family                               | 51                   |
| Pi          | Importance of partner  | 37                   |
| Pu          | Feeling unsupported by partner                               | 35, 36, 38, 53, 59   |
| Ra          | Rationalising  | 06,09, 26,30, 65, 69 |
| Rm          | Poor relationship with the staff                             | 19, 21,              |
| Rn          | Taking responsibility for negative outcomes                  | 01                   |
| Sd          | Difficulty sharing problems with others                      | 27, 66               |
| Tf          | Feels strongly about how staff treated her                   | 12                   |
| Th          | Thinking about the situation and revisiting it               | 03,14                |
| U           | Unable to do anything  | 25                   |
| Us          | Not feeling understood                                       | 29, 33, 42, 67       |
| Uu          | Unsupported by staff   | 42, 67, 63, 68       |
| V           | Verbalizing wants needs and wishes                           | 23, 26, 29, 67       |
| Wo          | Worried about letting feelings out                           | 25, 66               |

In the third session (Table 10.9) there was much more rationalisation of feelings but also more focus on the immediate postnatal period, she mentioned the labour twice; once in relation to the lack of support from her husband and secondly in relation to the recurring theme of feeling she had no relationship with her midwives. However, a lot more of the story was focussed on her partner and her disappointment in his lack of support and understanding and how the midwives on the postnatal ward made her feel.

In the comparison table below (Table 10.10) the second session appears to be much more reflective in nature, she endeavoured to make sense of what happened rather than just repeat the details of her experience (she had been allocated to group one which did not specifically ask her to make sense of what occurred).

### Coding Comparisons

**Table 10.10 Combined codes for first, second and third writing sessions**

#### Key

Appears in session 1 (A) only

Appears in session 2 (B) only

Appears in session 3 (C) only

Appears in session 1 and 2

Appears in session 1 and 3

Appears in session 2 and 3

Appears in all three sessions

| Code | Description                     | Frequency   |
|------|---------------------------------|---|
| Ab   | Admitting things to herself     | C06   |
| Ad   | Feeling abandoned               | A153, 169, C49  |
| Ag   | Amusing                         | A20   |
| Ah   | Avoiding health professionals   | A48   |
| Al   | Alone                           | A44, 145, 171, C52,57,57,62                             |
| Am   | Assumptions made by midwives    | A115  |
| An   | Annoyed                         | A65   |
| Ao   | Action taken by others          | A59, 150, 156   |
| Ar   | Afraid of doing the wrong thing | A160  |
| As   | Action taken by self            | A18, 30, 33, B15,26                                     |
| Aw   | Worried about advice given      | A123, 132   |
| B    | Birth plan                      | A70,  |
| Bd   | Demands of the baby             | A134  |
| Bl   | Blaming self                    | B7,11,14,26,28,30, C06,08                               |
| Bt   | Being told what to do           | A49, 50, 74, 78, 131, 143, 156, 164, 186, 187, 188, C40 |

|           |  |                                       |
|-----------|--|---------------------------------------|
| Bw        | Wanting to do the best for the baby            | A133                                  |
| Cc        | Lack of confidence in self                     | A144, 155, 187, 189, C 27             |
| Cd        | Condemned                                      | A159                                  |
| Ch        | Lack of choice                                 | A08,22                                |
| Cl        | Conflicting information                        | A39, C16                              |
| Cl        | Lack of communication                          | A05, 54, 57, 138, C27, 41, 48, 64     |
| Cm        | Calm   | A15                                   |
| Cn        | Losing control of the situation                | A76, 81, 155, 182, 183, 184, 187, B30 |
| Co        | Complicating condition                         | A03,                                  |
| Cr        | Crying   | A27, 137, 154, 154, C35               |
| Cs        | Comparing self to others                       | B7,8                                  |
| Ct        | Hard to concentrate                            | A86                                   |
| Cw        | Coped well with the pain                       | B3                                    |
| Db        | Disappointed in the behaviour of others        | C05                                   |
| Df        | Feeling defeated                               | A155                                  |
| Do        | Disappointed/outcomes                          | A07,22, 101, 122, 124, 128, B6        |
| Dp        | Feeling deprived of the birth wanted           | B18                                   |
| Dr        | Doing the right thing for the individual       | A83, 130                              |
| Dy        | Disappointed in self                           | B7, C08,13                            |
| E         | Expectations about the birth                   | A01, 26, 63, 68, 129, 161, 175, B23   |
| Ec        | Excited  | 16                                    |
| Ed        | Feeling encouraged                             | 84                                    |
| El        | Feeling emotional                              | 58, 150                               |
| Em        | Feeling empowered                              | 11, 185                               |
| Eu        | Unable to eat                                  | C44                                   |
| Ew        | Ending up doing the very thing she didn't want | B23                                   |
| Fg        | Feeling guilty about actions                   | A136, 151, 177                        |
| Fh        | Feeling a failure                              | A136, 143, 151, B29,31                |
| Fi        | Importance of family/friends                   | A171, C50                             |
| Fj        | Feeling judged by health professionals         | A49, 52, 139, 157, C29                |
| Fp        | Feels like a bad parent                        | A144                                  |
| Fl        | Feeling in control                             | A186                                  |
| Fm        | Feeling disempowered                           | A50, 52, 55                           |
| Fo/family | Feeling let down by friends                    | A173, 174, 50                         |
| Fr        | Frustration                                    | A19, 117, 127, 163                    |
| Fv        | Everything feeling unreal                      | C55                                   |
| Fx        | Feeling defective                              | A179                                  |
| G         | Giving in to pressure from professionals       | A61, 65, 74, B22, C62                 |
| Hc        | Hard to cope                                   | A125, 170                             |
| He        | Helplessness                                   | A92                                   |
| Ho        | Hoping it would all be over soon               | A93                                   |
| Hr        | High risk                                      | A03, 181, B17                         |
| Hs        | Hatred of self                                 | B29                                   |
| Ht        | Stopping being hard on self                    | C10                                   |
| Ic        | Importance of communication                    | A109, 121, 163, B21, C16,26,41,62     |

|    |  |   |
|----|--|---|
| le | Feeling isolated   | A169, 176, C52                            |
| lf | Feeling insignificant  | C23,31                                    |
| lg | Feeling ignored  | C31,67                                    |
| lo | Importance of support from others                                | A168, 174, 176, C21,37,50,68              |
| lr | Importance of continuous/consistent care                         | A163,179, C16                             |
| ls | Strong ideas about ideal birth                                   | A02, 22, 26, 56, 70, 129, 190,B17,23      |
| lv | Insensitive  | A114                                      |
| lw | Worried about the impact this birth will have on subsequent ones | A182                                      |
| k  | Not knowing what was happening                                   | A73, 90, 121                              |
| Kd | Didn't know what to do   | A28,                                      |
| L  | Not feeling listened to  | A49, 52, 58, 90, 113, 123, C19, 25, 31,47 |
| Lc | Lack of confidence in health professionals                       | A91, 163                                  |
| Ld | Feeling let down by health professionals                         |   |
| Le | Lack of encouragement  | A54, C65                                  |
| Lf | Looking to the future and how the experience impacts upon it     | A176, 182,B17, C69                        |
| Li | Lack of information  | A05, 08                                   |
| Ls | Linking to other people's stories                                | B8  |
| Lt | Lack of personal strength  | B12                                       |
| M  | Making excuses   | B9, C03                                   |
| Mc | Good midwifery communication /care                               | A33, 83                                   |
| Md | Making decisions   | A48,B13                                   |
| Mh | Hard to remember parts of event                                  | A82,85, 98,B24                            |
| Mv | Midwifery advice   | A143, 164                                 |
| Nj | Feeling the need to justify decisions                            | A49, 164                                  |
| Nn | Needs not met by partner   | C36, 60                                   |
| No | Notes  | A56,B16, C18,33                           |
| Np | Not wanting to repeat the past                                   | A176                                      |
| Ns | Not enough support from family                                   | A168, C 51                                |
| Oe | Overtaken by events  | A87                                       |
| P  | Positive spin  | A191,B31                                  |
| Pa | Partner  | A19, 68, 118,B4                           |
| Pc | Concerned about partner  | 10, 46, 124                               |
| Pf | Fighting with partner  | 43, 147                                   |
| Pi | Importance of partner  | B21, C37                                  |
| Pl | Planning   | B16                                       |
| Pn | Pain   | A43, 73,90, 91, 94, B3,14                 |
| Pp | Physical problems  | A65, 76, 87, 88,104 ,140, 179, 182        |
| Ps | Feeling powerless  | A90                                       |
| Pu | Feeling unsupported by partner                                   | A120, 146, B4, C35, 36, 38, 53, 59        |
| Ra | Rationalising feelings about the event                           | B8,13,19, C 06,09, 26, 30, 65, 69         |
| Re | Respect for certain health professionals                         | A83                                       |
| Rh | Reflecting on what was hard                                      | B2  |
| Ri | Repeated interventions   | A109                                      |

|    |   |   |
|----|---|---|
| Rk | Reflecting upon key information given by midwives   | A107, 186   |
| Rl | Reliving the experience                             | A188  |
| Rm | Poor relationship with midwife                      | A03, 51, 54, C19, 21                              |
| Rn | Taking responsibility for negative outcomes         | B7,11,12,15, 19, C01                              |
| Rp | Feeling reassured                                   | A37, 110  |
| Rt | Regrets   | A190, B11, 12, 12, 16, 20, 22, 27                 |
| S  | Stressful   | A181  |
| Sa | Sense of achievement                                | A185  |
| Sd | Difficulty sharing problems with others             | C27, 66   |
| Si | Importance of social media                          | A170  |
| Sm | Feeling she missed out                              | B24,25  |
| Sp | Supportive partner                                  | A28,  |
| Ta | Tense atmosphere                                    | A153  |
| Tc | Taking control of the situation                     | A160  |
| Tf | Feels strongly about how staff treated her          | C12   |
| Th | Thinking about the situation re-visiting it         | B1, C03, 14                                       |
| Ti | Tired   | A77, 86, 104, 150, 155, B24                       |
| Tn | Not thinking clearly                                | A74,  |
| Tp | Talking to partner                                  | A67, B20  |
| U  | Unable to do anything                               | A138, C25   |
| Uc | uncertain   | A15,23  |
| Ue | Unsure about what was happening                     | A15, 44, 133, 189                                 |
| Ui | Unable to take anything in                          | A98   |
| Un | Unhelpful information                               | A25   |
| Up | Unprepared  | A69   |
| Us | Not feeling understood                              | A52, 64, 92, 116, 123, 124, 159, C29, 33, 42, 67  |
| Uu | Unsupported by staff                                | A178, C42,67,                                     |
| V  | Verbalising wants and needs                         | A59, 67, 72, 92, 160, 187, B15, 19, C23,26,29, 67 |
| Wb | Worries about baby                                  | A94,105, 128, 138, 151                            |
| Wc | Wished she'd communicated with health professionals | A67, 72, 160, 188,B15,19                          |
| Wf | worried about information given                     | A40   |
| Wh | Worried that she could have done more               | B9  |
| Wo | Worried about letting feelings out                  | C25, 66   |

### Codes lost between first and second sessions

Tables 10.11, 10.12 and 10.3 depict the codes which were lost over the writing sessions. The writing in the first and second sessions differed significantly in length; the first comprised 191 lines whereas the second was merely 32. This could be because Becky felt that she had already told her story, but it also seems to show a

much more reflective and analytical approach rather than purely description. For example, the following all describe thoughts feelings or events at the time; not knowing what was happening, not feeling listened to, feeling let down by health professionals, unable to take anything in, not feeling understood and feeling unsupported. These statements were replaced by reflection, rationalising, wondering if she could have done more and taking responsibility for negative outcomes. This transition could indicate that she had been able to incorporate the separate event of the story into a bigger one. It is interesting to relate Becky's story to Foucault (1980) in two respects firstly she told a story dominated by a medicalised (paternalistic) hospital setting, she felt that she was pressurised to accept drugs she didn't intend to have and her voice was suppressed. A parallel could be drawn to Foucault's technology of power where the hospital structures and processes act upon a woman at her most vulnerable. Secondly Foucault's technology of self could have influenced how she reflected upon the experience and her subsequent apportioning of self-blame (Tambouku, 2008). Additionally, Becky's sense of helplessness and lack of autonomy could also be described as the effect of disintegrative power that was operated by the health care professionals, which left her confidence undermined (Fahy and Parratt, 2006).

**Table 10.11 Codes common across first and second writing sessions**

| Code | Description  | Frequency                             |
|------|--|---------------------------------------|
| As   | Action taken by self   | A18, 30, 33, B15,26                   |
| Cn   | Losing control of the situation                              | A76, 81, 155, 182, 183, 184, 187, B30 |
| Do   | Disappointed/outcomes  | A07,22, 101, 122, 124, 128, B6        |
| E    | Expectations about the birth                                 | A01, 26, 63, 68, 129, 161, 175, B23   |
| Fh   | Feeling a failure  | A136, 143, 151, B29,31                |
| G    | Giving in to pressure from professionals                     | A61, 65, 74, B22                      |
| Hr   | High risk  | A03, 181, B17                         |
| Ic   | Importance of communication                                  | A109, 121, 163, B21                   |
| Is   | Strong ideas about ideal birth                               | A02, 22, 26, 56, 70, 129, 190,B17,23  |
| Lf   | Looking to the future and how the experience impacts upon it | A176, 182,B17                         |
| Md   | Making decisions   | A48,B13                               |
| Mh   | Hard to remember parts of event                              | A82,85, 98,B24                        |
| No   | Notes  | A56,B16                               |
| P    | Positive spin  | A191,B31                              |
| Pa   | Partner  | A19, 68, 118,B4                       |
| Pn   | Pain   | A43, 73,90, 91, 94, B3,14             |
| Pu   | Feeling unsupported by partner                               | A120, 146,B4                          |
| Rt   | Regrets  | A190, B11, 12, 12, 16, 20, 22, 27     |
| Ti   | Tired  | A77, 86, 104, 150, 155, B24           |
| V    | Verbalising wants and needs                                  | A59, 67, 72, 92, 160, 187, B15, 19    |
| Wc   | Wished she'd communicated with health professionals          | A67, 72, 160, 188,B15,19              |



**Table 10.12 Codes common across second and third writing sessions**

| Code | Description                                 | Frequency                         |
|------|---|-----------------------------------|
| Bl   | Blaming self                                | B7,11,14,26,28,30, C06,08         |
| Dy   | Disappointed in self                        | B7, C08,13                        |
| M    | Making excuses                              | B9, C03                           |
| Pi   | Importance of partner                       | B21, C37                          |
| Ra   | Rationalising feelings about the event      | B8,13,19, C 06,09, 26, 30, 65, 69 |
| Rn   | Taking responsibility for negative outcomes | B7,11,12,15, 19, C01              |
| Th   | Thinking about the situation re-visiting it | B1, C03, 14                       |

**Table 10.13 Code re-emergence between first and third writing sessions**

| Code      | Description                              | Frequency   |
|-----------|--|---|
| Ad        | Feeling abandoned                        | A153, 169, C49  |
| Al        | Alone                                    | A44, 145, 171, C52,57,57,62                             |
| Bt        | Being told what to do                    | A49, 50, 74, 78, 131, 143, 156, 164, 186, 187, 188, C40 |
| Cc        | Lack of confidence in self               | A144, 155, 187, 189, C 27                               |
| Ci        | Conflicting information                  | A39, C16  |
| Cl        | Lack of communication                    | A05, 54, 57, 138, C27, 41, 48, 64                       |
| Cr        | Crying                                   | A27, 137, 154, 154, C35                                 |
| Fi        | Importance of family/friends             | A171, C50   |
| Fj        | Feeling judged by health professionals   | A49, 52, 139, 157, C29                                  |
| Fo/family | Feeling let down by friends              | A173, 174, 50   |
| Ie        | Feeling isolated                         | A169, 176, C52  |
| Io        | Importance of support from others        | A168, 174, 176, C21,37,50,68                            |
| Ir        | Importance of continuous/consistent care | A163,179, C16   |
| L         | Not feeling listened to                  | A49, 52, 58, 90, 113, 123, C19, 25, 31,47               |
| Le        | Lack of encouragement                    | A54, C65  |
| Ns        | Not enough support from family           | A168, C 51  |
| Rm        | Poor relationship with midwife           | A03, 51, 54, C19, 21                                    |
| U         | Unable to do anything                    | A138, C25   |
| Us        | Not feeling understood                   | A52, 64, 92, 116, 123, 124, 159, C29, 33, 42, 67        |
| Uu        | Unsupported by staff                     | A178, C42,67,   |

The second writing session was shorter than the first and third. In the third, key parts of the story were re-told with evidence of rumination and thinking about the impact on her and the future. She had time to re-evaluate the experience alongside her current situation. A key emergence was the effect of the lack of support she felt from her partner. This emphasis seemed to be enhanced over time. This may have been because as time passed whilst she was at home, she remained dissatisfied with the subsequent support her partner provided. Then, when looking back at the birth experience the emotional impact of his current lack of support may have amplified her view about his role in the labour, when she re-told the story. In terms of the ever changing narrative which Becky wove and re-wove, Andrews, Squire and Tamboukou (2008) discuss the fact that narrators continually re-script their lives depending upon subsequent events and perhaps this is an example of a continuous reinterpretation of the story for Becky.

**Table 10.14 Codes common across all writing sessions**

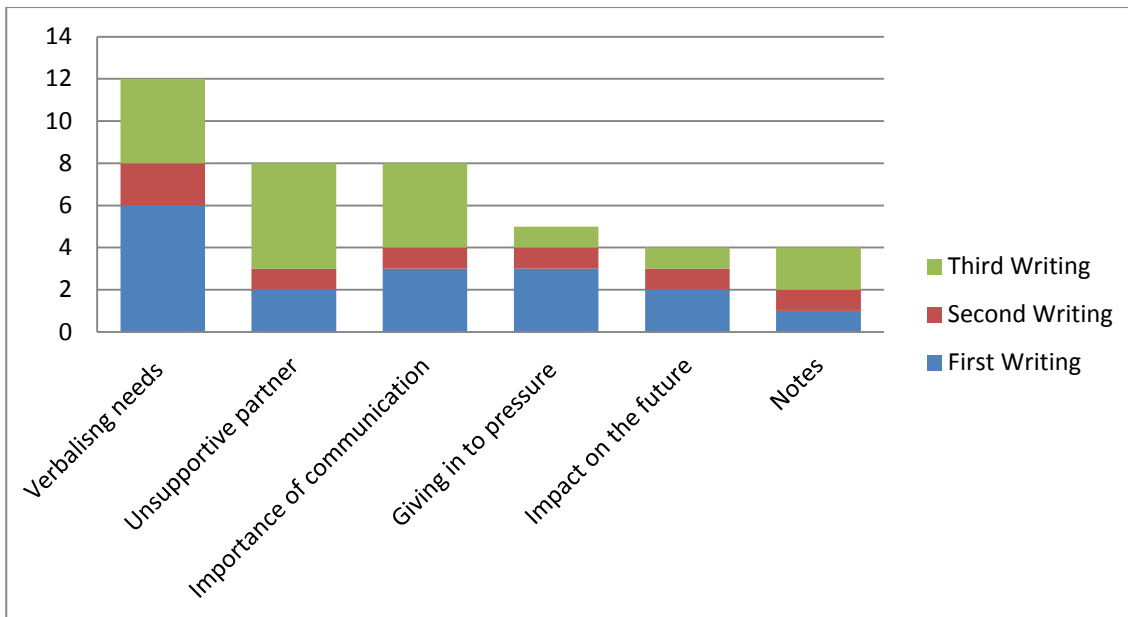
| Code | Description  | Frequency  |
|------|--|--|
| G    | Giving in to pressure from professionals                     | A61, 65, 74, B22, C62                              |
| lc   | Importance of communication                                  | A109, 121, 163, B21, C16,26,41,62                  |
| Lf   | Looking to the future and how the experience impacts upon it | A176, 182,B17, C69                                 |
| No   | Notes  | A56,B16, C18,33                                    |
| Pu   | Feeling unsupported by partner                               | A120, 146, B4, C35, 36, 38, 53, 59                 |
| V    | Verbalising wants and needs                                  | A59, 67, 72, 92, 160, 187, B15, 19, C 23,26,29, 67 |

There were surprisingly few codes repeated in each session (see Table 10.14), however I feel these could be seen as a distillation of her story. At this point I returned to Hall's (2011) model in order to explore the detailed textual content further. In each

of the six codes listed above it was possible to construe the related codes which lent detail to the story. The audience have become aware of her regrets about not voicing her own desires at each point perinatally and this was seen in the 'verbalising' and 'giving in to professionals' themes. However, she also felt that the staff could have communicated better and she was concerned that so many staff saw her and did not communicate effectively about her needs and wishes to each other. It is also pertinent that the notes emerged as a consistent code, this accords with Brown and Smith's Cochrane review (2011) of three trials involving 675 women, which found that hand held notes are important to women and increase their sense of control and satisfaction. However, here Becky felt that the notes were not read at the beginning of her labour, as her wishes for labour were ignored and she felt that they did not use them effectively postnatally to document her problems with breastfeeding.

In Table 10.14. a consistent feeling that she was unsupported by her partner can be seen. Czarnocka and Slade (2000) demonstrated that the perception of lack of support from a partner is a key predictor of PTSD in postnatal women. 'Having needs not met by partner' was one of the few codes to newly emerge in the third session. This could show that even as more time elapsed after the event, her dissatisfaction with her partner intensified. This may be part of the inevitable re-negotiation of roles within a relationship which becomes necessary when change occurs (Acitelli, 1992).

Other new codes that emerged on the third session only were the admission that others were to blame for the situation and not just herself, which could show she was becoming more rational and actively trying to be kinder to herself, despite residual self-blame. Comparison of the main codes can be seen in Figure 10.2.



**Figure 10.2 Comparison of main codes**

As can be seen from Figure 10.2 of the shared codes, 'wishing she had verbalised her wants and needs more' was the most frequent. As she ruminated more, the importance of her partner and his lack of support and the need for communication with all parties emerged. The second session was much shorter but the main theme distilled from it was that of regret about what happened and a strong implication that Becky was at fault for what happened.

### 10.3.6 Interview Findings

The main codes from interview are shown in Table 10.15 and the coding frame derived from these in Table 10.16 (a portion of the interview transcript can be found in Appendix xiii).

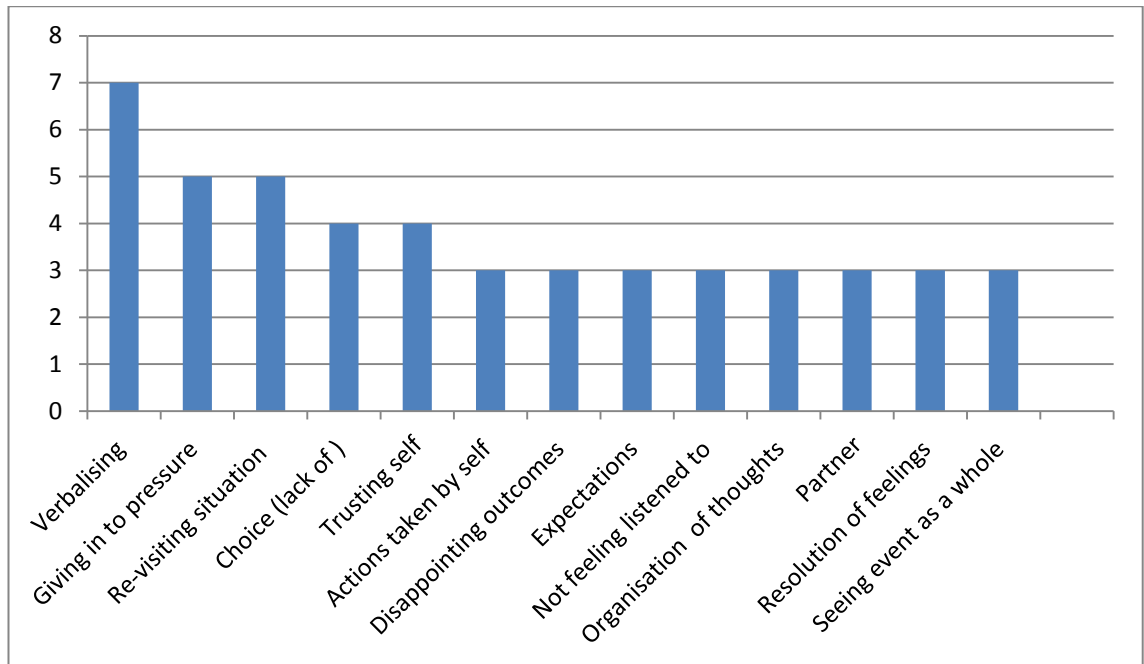
**Table 10.15 Main codes from interview**

|    |  |    |  |
|----|--|----|--|
| Ao | Actions taken by others  | Mc | Midwifery care/communication                           |
| As | Actions taken by self  | Me | Medical environment                                    |
| B  | Birth plan   | O  | Organisation of thoughts                               |
| C  | Continued writing a lot  | Oe | Feeling overtaken by events                            |
| Ch | Choice   | Pa | Partner  |
| Cn | Losing control of the situation                                | Pr | Feeling pressurised by health care professionals       |
| Cw | Writing again making feelings clearer                          |    |  |
| Di | Dealing with issues  | Pt | Problems with technology                               |
| Do | Disappointing outcome  | R  | Reminders of the event                                 |
| Ds | Didn't know what to say  | Re | Respect for certain health professionals               |
| E  | Expectations about the birth                                   | Rn | Taking responsibility for negative outcomes            |
| Es | Easy   | Rs | Resolution   |
| Ft | Looking to the future and how the experience impacts upon that | St | Self-talk  |
| G  | Giving in /compliance in to pressure by health professionals   | Tc | Taking control of the situation                        |
| Gu | Feeling guilty about actions                                   | Th | Thinking about the situation, revisiting it            |
| I  | Initial disappointing contact with health professional         | Tp | Talking to partner                                     |
| Id | Identity   | Ts | Trusting self  |
| Ih | Initially hard   | Us | Not feeling understood                                 |
| L  | Not being listened to  | V  | Verbalising wants needs and wishes                     |
| La | Large amount   | W  | Seeing the event as a whole                            |
| Lc | Lack of confidence in health professionals                     | Wc | Wishing she had communicated with health professionals |
| Lf | Looking to the future and how the experience impacts upon it   | Wr | Writing  |
| M  | Making excuses for things                                      | Ws | Worries about self                                     |

**Table 10.16 Coding frame for interview**

| <b>Code</b> |  |                                |
|-------------|--|--------------------------------|
| Ao          | Actions taken by others                                      | B56, 169,                      |
| As          | Actions taken by self  | B55, 153, 168                  |
| B           | Birth plan   | B64                            |
| C           | Continued writing a lot                                      | B15                            |
| Ch          | Choice   | B89, 93,104,203                |
| Cn          | Losing control of the situation                              | B145, 148                      |
|             |  |                                |
| Cw          | Writing again making feelings clearer                        | B190                           |
| Di          | Dealing with issues  | B159,                          |
| Do          | Disappointing outcomes                                       | B80,89, 126,                   |
| Ds          | Didn't know what to say                                      | B10                            |
| E           | Expectations about the birth                                 | B70, 89, 102,                  |
| Es          | Easy   | B4                             |
| Ft          | Feeling confident  | B201,                          |
| G           | Giving in to pressure from professionals                     | B86, 91, 142, 145, 150,        |
| Gu          | Feeling guilty about actions                                 | B153, 167,                     |
| I           | First disappointing contact with professionals               | B112, 122                      |
| Id          | Identity   | B165,                          |
| Ih          | Initially hard   | B3,                            |
| L           | Not feeling listened to                                      | B65, 106, 131,                 |
| La          | Large amount   | B5                             |
| Lc          | Lack of confidence in professionals                          | B116, 131                      |
| Lf          | Looking to the future and how the experience impacts upon it | B177,                          |
| M           | Making excuses for things                                    | B54,                           |
| Mc          | Midwifery care / communication                               | B128, 132,                     |
| Me          | Medical environment  | B119,                          |
| O           | Organisation of thoughts                                     | B52, 158, 200,                 |
| Oe          | Overtaken by events  | B100,                          |
| Pa          | Partner  | B61, 96, 102,                  |
| Pr          | Feeling pressurised by professionals                         | B81,                           |
| Pt          | Problems with technology                                     | B31,                           |
| R           | Reminders of the event                                       | B133                           |
| Rn          | Taking responsibility for negative outcomes                  | B167,                          |
| Rs          | Resolution of feelings                                       | B185, 192, 204,                |
| St          | Self-talk  | B18, 35,                       |
| Tc          | Taking control of the situation                              | B179,                          |
| Th          | Thinking about the situation - re-visiting                   | B12, 56, 160, 182, 184,        |
| Tp          | Talking to partner   | B96, 109                       |
| Ts          | Trusting self  | B134, 136, 138, 152            |
| Us          | Not feeling understood                                       | B135,                          |
| V           | Verbalising wants needs and wishes                           | B60, 62, 67, 72, 76, 104, 136, |
| W           | Seeing the event as a whole                                  | B160, 172, 176,                |
| Wc          | Wishing she had communicated with health professionals       | B73,                           |
| Wr          | Writing  | B3,                            |
| Ws          | Worries about self   | B134,                          |

Codes that occurred three or more times are shown in Figure 10.3.



**Figure 10.3 Frequency of main interview codes**

### Themes emerging from the codes

Becky told her story during a semi-structured interview about her engagement with the writing process six months after she had submitted the second writing therapy script.

Table 10.17 shows the codes which were common for all three writing sessions and interview. Figure 10.4 compares their relative occurrence.

### 10.3.7 Comparisons from Writing and Interview

**Table 10.17 Codes common for writing 1, 2 and interview**

**Key**

Appears in session 1 (A) only  
 Appears in session 2 (B) only  
 Appears in session 3 (C) only

Appears in session 1 and 2  
 Appears in session 1 and 3  
 Appears in session 2 and 3

Appears in all three sessions  
 Codes common for writing and interview (INT)

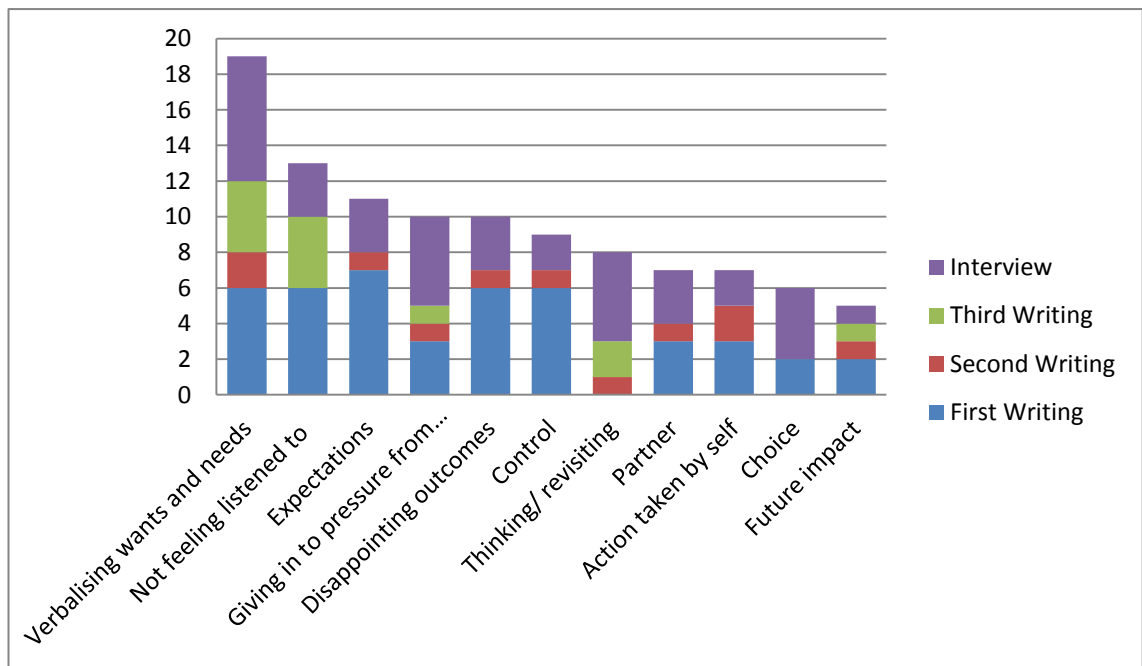
| Code | Description                                    | Frequency  |
|------|--|--|
| Ab   | Admitting things to herself                    | C06  |
| Ad   | Feeling abandoned                              | A153, 169, C49   |
| Ag   | Amusing  | A20  |
| Ah   | Avoiding health professionals                  | A48  |
| Al   | Alone  | A44, 145, 171, C52,57,57,62                                |
| Am   | Assumptions made by midwives                   | A115   |
| An   | Annoyed  | A65  |
| Ao   | Action taken by others                         | A59, 150, 156  |
| Ar   | Afraid of doing the wrong thing                | A160   |
| As   | Action taken by self                           | A18, 30, 33, B15,26,<br>INT56,169                          |
| Aw   | Worried about advice given                     | A123, 132  |
| B    | Birth plan                                     | A70,   |
| Bd   | Demands of the baby                            | A134   |
| Bl   | Blaming self                                   | B7,11,14,26,28,30, C06,08                                  |
| Bt   | Being told what to do                          | A49, 50, 74, 78, 131, 143, 156,<br>164, 186, 187, 188, C40 |
| Bw   | Wanting to do the best for the baby            | A133   |
| Cc   | Lack of confidence in self                     | A144, 155, 187, 189, C 27                                  |
| Cd   | Condemned                                      | A159   |
| Ch   | Lack of choice                                 | A08,22,INT 89, 93,104,203                                  |
| Ci   | Conflicting information                        | A39, C16   |
| Cl   | Lack of communication                          | A05, 54, 57, 138, C27, 41, 48,<br>64                       |
| Cm   | Calm   | A15  |
| Cn   | Losing control of the situation                | A76, 81, 155, 182, 183, 184,<br>187, B30,INT145,148        |
| Co   | Complicating condition                         | A03,   |
| Cr   | Crying   | A27, 137, 154, 154, C35                                    |
| Cs   | Comparing self to others                       | B7,8   |
| Ct   | Hard to concentrate                            | A86  |
| Cw   | Coped well with the pain                       | B3   |
| Db   | Disappointed in the behaviour of others        | C05  |
| Df   | Feeling defeated                               | A155   |
| Do   | Disappointed/outcomes                          | A07,22, 101, 122, 124, 128,<br>B6, INT80,89,126            |
| Dp   | Feeling deprived of the birth wanted           | B18  |
| Dr   | Doing the right thing for the individual       | A83, 130   |
| Dy   | Disappointed in self                           | B7, C08,13   |
| E    | Expectations about the birth                   | A01, 26, 63, 68, 129, 161, 175,<br>B23, INT70,89,102       |
| Ec   | Excited  | 16   |
| Ed   | Feeling encouraged                             | 84   |
| El   | Feeling emotional                              | 58, 150  |
| Em   | Feeling empowered                              | 11, 185  |
| Eu   | Unable to eat                                  | C44  |
| Ew   | Ending up doing the very thing she didn't want | B23  |
| Fg   | Feeling guilty about actions                   | A136, 151, 177   |
| Fh   | Feeling a failure                              | A136, 143, 151, B29,31                                     |



|           |  |   |
|-----------|--|---|
| Fi        | Importance of family/friends                                     | A171, C50   |
| Fj        | Feeling judged by health professionals                           | A49, 52, 139, 157, C29                                      |
| Fp        | Feels like a bad parent  | A144  |
| Fl        | Feeling in control   | A186  |
| Fm        | Feeling disempowered   | A50, 52, 55   |
| Fo/family | Feeling let down by friends                                      | A173, 174, 50   |
| Fr        | Frustration  | A19, 117, 127, 163  |
| Fv        | Everything feeling unreal  | C55   |
| Fx        | Feeling defective  | A179  |
| G         | Giving in to pressure from professionals                         | A61, 65, 74, B22, C62, INT86, 91, 142, 145, 150             |
| Hc        | Hard to cope   | A125, 170   |
| He        | Helplessness   | A92   |
| Ho        | Hoping it would all be over soon                                 | A93   |
| Hr        | High risk  | A03, 181, B17   |
| Hs        | Hatred of self   | B29   |
| Ht        | Stopping being hard on self                                      | C10   |
| Ic        | Importance of communication                                      | A109, 121, 163, B21, C16,26,41,62                           |
| Ie        | Feeling isolated   | A169, 176, C52  |
| If        | Feeling insignificant  | C23,31  |
| Ig        | Feeling ignored  | C31,67  |
| Io        | Importance of support from others                                | A168, 174, 176, C21,37,50,68                                |
| Ir        | Importance of continuous/consistent care                         | A163,179, C16   |
| Is        | Strong ideas about ideal birth                                   | A02, 22, 26, 56, 70, 129, 190,B17,23                        |
| Iv        | Insensitive  | A114  |
| Iw        | Worried about the impact this birth will have on subsequent ones | A182  |
| K         | Not knowing what was happening                                   | A73, 90, 121  |
| Kd        | Didn't know what to do   | A28,  |
| L         | Not feeling listened to  | A49, 52, 58, 90, 113, 123, C19, 25, 31,47, INT65, 106, 131, |
| Lc        | Lack of confidence in health professionals                       | A91, 163  |
| Ld        | Feeling let down by health professionals                         |   |
| Le        | Lack of encouragement  | A54, C65  |
| Lf        | Looking to the future and how the experience impacts upon it     | A176, 182,B17, C69, INT177                                  |
| Li        | Lack of information  | A05, 08   |
| Ls        | Linking to other people's stories                                | B8  |
| Lt        | Lack of personal strength  | B12   |
| M         | Making excuses   | B9, C03   |
| Mc        | Good midwifery communication /care                               | A33, 83   |
| Md        | Making decisions   | A48,B13   |
| Mh        | Hard to remember parts of event                                  | A82,85, 98,B24  |
| Mv        | Midwifery advice   | A143, 164   |
| Nj        | Feeling the need to justify decisions                            | A49, 164  |
| Nn        | Needs not met by partner   | C36, 60   |
| No        | Notes  | A56,B16, C18,33   |
| Np        | Not wanting to repeat the past                                   | A176  |

|    |   |  |
|----|---|--|
| Ns | Not enough support from family                    | A168, C 51                                       |
| Oe | Overtaken by events                               | A87  |
| P  | Positive spin                                     | A191,B31   |
| Pa | Partner   | A19, 68, 118,B4,INT61, 96, 102                   |
| Pc | Concerned about partner                           | 10, 46, 124                                      |
| Pf | Fighting with partner                             | 43, 147  |
| Pi | Importance of partner                             | B21, C37   |
| Pl | Planning  | B16  |
| Pn | Pain  | A43, 73,90, 91, 94, B3,14                        |
| Pp | Physical problems                                 | A65, 76, 87, 88,104 ,140, 179, 182               |
| Ps | Feeling powerless                                 | A90  |
| Pu | Feeling unsupported by partner                    | A120, 146, B4, C35, 36, 38, 53, 59               |
| Ra | Rationalising feelings about the event            | B8,13,19, C 06,09, 26, 30, 65, 69                |
| Re | Respect for certain health professionals          | A83  |
| Rh | Reflecting on what was hard                       | B2   |
| Ri | Repeated interventions                            | A109   |
| Rk | Reflecting upon key information given by midwives | A107, 186  |
| Rl | Reliving the experience                           | A188   |
| Rm | Poor relationship with midwife                    | A03, 51, 54, C19, 21                             |
| Rn | Taking responsibility for negative outcomes       | B7,11,12,15, 19, C01                             |
| Rp | Feeling reassured                                 | A37, 110   |
| Rt | Regrets   | A190, B11, 12, 12, 16, 20, 22, 27                |
| S  | Stressful   | A181   |
| Sa | Sense of achievement                              | A185   |
| Sc | Difficulty sharing problems with others           | C27, 66  |
| Si | Importance of social media                        | A170   |
| Sm | Feeling she missed out                            | B24,25   |
| Sp | Supportive partner                                | A28,   |
| Ta | Tense atmosphere                                  | A153   |
| Tc | Taking control of the situation                   | A160   |
| Tf | Feels strongly about how staff treated her        | C12  |
| Th | Thinking about the situation re-visiting it       | B1, C03, 14, INT 12, 56, 160, 182, 184,          |
| Ti | Tired   | A77, 86, 104, 150, 155, B24                      |
| Tn | Not thinking clearly                              | A74,   |
| Tp | Talking to partner                                | A67, B20   |
| U  | Unable to do anything                             | A138, C25  |
| Uc | Uncertain   | A15,23   |
| Ue | Unsure about what was happening                   | A15, 44, 133, 189                                |
| Ui | Unable to take anything in                        | A98  |
| Un | Unhelpful information                             | A25  |
| Up | Unprepared  | A69  |
| Us | Not feeling understood                            | A52, 64, 92, 116, 123, 124, 159, C29, 33, 42, 67 |

|    |   |   |
|----|---|---|
| Uu | Unsupported by staff                                | A178, C42,67,   |
| V  | Verbalising wants and needs                         | A59, 67, 72, 92, 160, 187, B15, 19, C23,26,29, 67, INT 60,62,67,72,76,104,136 |
| Wb | Worries about baby                                  | A94,105, 128, 138, 151  |
| Wc | Wished she'd communicated with health professionals | A67, 72, 160, 188,B15,19  |
| Wf | Worried about information given                     | A40   |
| Wh | Worried that she could have done more               | B9  |
| Wo | Worried about letting feelings out                  | C25, 66   |



**Figure 10.4 Codes common across writing sessions and interview**

Codes which were common across all writing sessions and the interview transcript were; verbalising wants needs and wishes, giving in to pressure from health professionals, thinking about the situation, and the impact that the experience was likely to have upon the future. In terms of the story Becky chose to tell, these were the main elements defining her experience and what she distilled from it. The story contained elements of her life before the birth, exemplified by the expectations (expressed in all except the third writing session). The negative associations around

the birth were heavily influenced by the feeling of being pressurised and the feeling of being unable to voice her own desires. There was also an acknowledgement that the experience would impact upon her future. In some ways it was inevitable that the key events in the story would be repeated at interview because she was asked about her birth experience. Interestingly each time the story was told Becky knew that the audience was the same and this may account for the inclusion of the part where she felt pressurised by health professionals to have diamorphine. Conversely, even though she had known me previously as a client she was also able to be honest about issues such as problems with her partner.

It is interesting to see which parts of the story were lost each time the story was told. Codes only present in the first writing session were feeling unsure, not understood, worried about the baby, judged and guilty. There was a lot of emphasis on physical problems experienced and the importance of support from partner and midwife which was not realised. Codes only present in the second writing session related to self-blame and rationalising about the experience. However, this session included themes which were revisited such as; the importance of consistent care, the relationships with midwives which were never established, lack of support and the feeling of being abandoned. Codes newly evident in the third session were; admitting the fact that some of the outcomes may have been affected by others rather than just her, feeling much more strongly about the role of the staff, her difficulties in sharing her problems and her needs not being met by her partner.

### 10.3.8 Findings from quantitative questionnaires

The next stage of analysis involved scoring the questionnaires and relating the findings to the qualitative data derived from writing sessions and interview. Table 10.18 shows the quantitative questionnaire results.

**Table 10.18 Quantitative results**

| Questionnaire   | Result QT1 (14.12.12)  | Result QT2 (21.02.13) 10 weeks after QT1 and 4 weeks after WT2   |
|---|--|--|
| Writing took place on 30.12.12 (WT1) and 14.01.13 (WT2) |  |  |
| Maternal Confidence                                     | 51/66 Mainly confident in daily baby care tasks<br>(Scores of 42-70 indicate moderate to high maternal confidence)   | 62/66 Confidence increased this would be in line with expectations as the mother becomes more practiced at parenting skills  |
| Perception of Labour and Delivery Scale                 | Staff support =52/70<br>Pain =28/40<br>Fear = 6/40<br>(Scores of 35 to 70 indicate low to moderate perception of staff support, for pain and fear subscales a score of 20-40 indicates moderate to high levels of fear and pain)                                   | Regarded as stable over time so not part of questionnaire 2  |
| Past Trauma   | 18/80<br>(A low to moderate score equates to 16-48 and a moderate to high score equates to 49-80.)   | Regarded as stable over time so not part of questionnaire 2  |
| PTSD  | Total score =37<br>Criterion B re-experiencing (2 x moderate)<br>Criterion C avoidance/numbing (1x moderate, 1x extremely, 1x quite a bit)<br>Criterion D arousal (2x moderate 1x extreme)<br>(initial selection to take part depends on a total score of over 29) | Total score =42<br>Criterion B re-experiencing (x1 mod, x1 quite a bit, 1 required)<br>Criterion C avoidance/numbing (x2 extreme , 3 required)<br>Criterion D arousal ( x2 extreme, 2 required)<br>Not full PTSD; arousal appears to have increased- so the writing intervention was not successful in reducing the PTSD score |
| PND   | Scored 5/30<br>(12 and above indicates depression)   | Regarded as stable over time so not part of questionnaire 2  |
| Self-Efficacy Scale                                     | 33/40 highly self-reliant and high internal locus of control.<br>(Moderate to high self efficacy equates to a score of 21-40, low self efficacy equates to a score of 10- 20.)   | 34/40 highly self-reliant and high internal locus of control (scored 1 more than previously)   |
| Relationship Scales                                     | Secure ave =2.8  | Secure ave =2.6  |

|  |   |   |
|--|---|---|
| Questionnaire                                      | <p>Fearful ave =2.5<br/> Preoccupied ave = 2<br/> Dismissing 3.4<br/> (An average was calculated for each subscale, the maximum score for each subscale was between 20-25, so scores indicate a moderately secure and relatively independent individual)<br/> Self Model = 1.7<br/> Other Model = -1.1</p>  | <p>Fearful ave =2.75<br/> Preoccupied ave =3.25<br/> Dismissing ave =4<br/> Self Model = 0.6<br/> Other Model = -0.9</p>  |
| Multidimensional Scale of Perceived Social Support | <p>Special other = 23/28<br/> Friends =22 /28<br/> Family=25/28<br/> (Scores of 7-14 indicate low to moderate perceived level of social support, scores of 15-28 indicate moderate to high perceived social support.)<br/> Feels well supported especially by family</p>  | <p>Special other = 24/28<br/> Friends =17/28<br/> Family =24/28<br/> Still feels strongly supported by family and partner but less so by friends, not consistent with qualitative results</p> |
| Positive and Negative Affects Scale                | <p>Positive affect= 37/50<br/> Negative affect=20/50<br/> (Low to moderate scores for both subscales are 5-12 and a moderate to high score is 13 and 25.)<br/> Has a much higher positive affect than negative so feels energised and enthusiastic rather than depressed and lethargic</p>  | <p>Positive affect=34/50<br/> Negative affect=22/50<br/> So positive affect is slightly decreased and negative slightly increased by T2</p>   |
| Hendricks Relationship Assessment Scale            | <p>20/25- satisfaction<br/> Problems 5/10<br/> (Scores of 21-35 indicate moderate to high relationship satisfaction and scores below 21 indicate moderate to low relationship satisfaction.)<br/> Mostly satisfied with the relationship but is aware of some problems</p>  | <p>18/25- satisfaction<br/> 5/10- problems<br/> So over time she has become less satisfied with the relationship</p>  |
| TAS Alexithymia questionnaire                      | <p>F1=9/45 so finds it easy to identify feelings and emotions<br/> F2=13/35 so can describe feelings to others<br/> F3=5/25 so is able to make sense of her thoughts<br/> Total score= 27<br/> (Bagby, Taylor and Parker (1994) recommend that scores of 61 and over should be characterised as alexithymia and scores of 51 and below would indicate non-alexithymic individuals.)</p> | <p>Regarded as stable over time so not part of questionnaire 2</p>  |
| GHQ-28   | <p>Somatic health 4/7= not as physically</p>  | <p>Regarded as stable over time so not</p>  |

|  |   |                                |
|--|---|--------------------------------|
|  | <p>well as usual<br/> Anxiety 5/7= more anxious than usual<br/> Social interaction 0/7 = same as usual<br/> Depression 0/7= not depressed.<br/> (The scoring method for each question was 0,0,1,1, as suggested by Goldberg and Hillier (1979). The recommended cut off point for a positive result was considered to be seven or more and a combined score of thirteen or more was used to indicate a positive psychiatric condition.)</p> | <p>part of questionnaire 2</p> |
|--|---|--------------------------------|

### Summary of quantitative findings

Over a ten week period the PTSD score increased, although it did not meet all three B, C, D DSM IV criteria (APA, 1994) when administered at the second time point although it had initially. This was despite the use of an expressive writing intervention. There seemed to be no correlation between Becky's PTSD criterion B score for avoidance which was high initially and whether she felt able to write. She had significant scores for avoidance and yet she still felt able to write. Interestingly a slight decrease in the avoidance score was evident after the writing had been completed. However, this finding needs to be balanced against her low scores for alexithymia which indicate she was readily able to identify describe and communicate her emotions to others.

Maternal confidence increased moderately and this would be in line with the expectation that a mother becomes more skilled in baby care tasks over time. The high self-efficacy score was very similar for each time point but seemed contradictory to a decrease in the self model and increase in the other model for the Relationship Scales Questionnaire. Becky still felt supported by her partner although she was less satisfied with the relationship than she had been previously. She felt supported by family but less supported by friends as the baby became older. Positive affect

decreased over time and negative affect increased, this could be related to the increased PTSD score. However this is also consistent with previous findings, Baikie and Wilhelm (2005) reported that initially negative affect is increased after expressive writing but, does not have long term implications. This was also evidenced in the present study as the participant, at interview, evaluated the experience of writing positively. Since neither the PND nor General Health Questionnaires were administered a second time I was unable to report whether PND score had increased in line with this.

The story in both the interviews and writing sessions shows that there was an element of looking to the future and evaluating how the birth would impact upon any future births. Becky also identified poor communication as a reason why the birth didn't go according to her original plans. However, in the second writing session she appeared to internalise any blame and condemn her own communication skills rather than implicate any professionals. This moderated slightly in the third writing session where she acknowledged the role that midwives played in the situation. Interestingly, she scored relatively highly (33/40) on the Self Efficacy Scale, which triangulated well with the loss of control she experienced during the labour and its potential impact upon her. Thus, if she was used to being in control in her daily life and that control was absent during labour, this could have potentially had a more severe impact upon her. Furuta et al. (2014a) concur that women who report loss of control during labour are more likely to exhibit PTSD symptoms subsequently.

There appeared to be no other significant factors contributing to PTSD that were evident from her responses to the questionnaires and her writing. The results from questionnaires indicated that she felt secure (2.8 initially and 2.6 after writing),



supported by friends and family (22-25/28 initially and 17-24/28 after writing) and had a moderate score for general health. This indicated that she was not depressed but was anxious. Also she scored more highly for positive than negative affect (initial positive affect 37/50 and after writing 34/50, initial negative affect 20/50 and 22/50 after writing).

### **10.3.9 Analysis of writing 1 for emotion and cognitive words**

Since the writing had originally been used as an intervention for PTSD treatment, it was of interest to determine whether Becky had changed her use of words between the three writing sessions (Pennebaker and Seagal, 1999). This could indicate a likelihood of reduced PTSD scores after writing.

Table 10.19 is a short excerpt showing coding for types of emotion and cognition words for the first writing session and Table 10.20, 10.21 and 10.22 show the proportions found for each session. The full coding for all sessions can be found in appendix xvi.

**Table 10.19 Excerpt of coding for word categories in the first writing session**

| Line   | Writing 1  | Emotion (e) or cognitive (c) word  |
|--|--|--|
| 01<br>02<br>03<br>04<br>05<br>06<br>07<br>08<br>09<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41 | <p>Before the birth I had very few expectations, I wanted to try to use as little pain relief as possible and use the pool if it was available. I wanted to go to Bracken, but I was recommended to go to labour ward as my BMI was right on the edge of the cut off point for being higher risk. When they recommended this they didn't tell me that if I wanted to go to Bracken I needed to be booked in in advance and so when I was ready to go to hospital and called into Bracken that's when I found out that I had no choice, but to go to labour ward. When my labour started I was at home by myself as my husband was working overnight, it was about 8pm on the 11th of November. I decided not to call him to come home as I was coping fine and the contractions were only about 30 seconds long and coming about every 5 minutes. This continued for about 5 hours then stopped. After about 14 hours my contractions started again and for a while they seemed to be about the same as the day before. I felt very unsure as to if I was actually in real labour or not, but was calm and a bit excited. After 12 more hours my contractions seemed to be more frequent and lasting for longer so I decided to phone the hospital and wake my husband up. He is a very sound sleeper and it took me about 5 minutes of calling his name and shaking him to get him to wake up. I remember laughing and thinking the situation was very funny. While he went out to clean the car I phoned the hospital and found out that I couldn't go into Bracken. I was very disappointed by this and was feeling very uncertain of what I needed to do. Labour ward told me not to come in until my waters had broken or I was having trouble coping with the pain and needed something for it. I found this very unhelpful as I wanted to try to go without pain relief and just using my TENS machine and then the pool. I started crying as soon as I got off the phone with them and felt like I didn't know what to do. My husband was very supportive and told me he was happy to do whatever I needed. After about 2 more hours I decided I wanted to go in to see how far along I was. I phoned back in and said I wanted to come in they told me again about waiting til my waters broke or the pain was unbearable. Even though I wouldn't have classed the pain as unbearable I told them I was coming in. The midwife who saw me when I got in was very nice and she said she thought that I probably wasn't very far along, but she would check me and I could stay if I wanted to even if I wasn't in established labour. She was surprised to find that I was already 2 cm and I felt reassured that I was interpreting the signs correctly and labour had actually started</p> | <p>Found out (c)</p> <p>Decided (c)</p> <p>Unsure (e)<br/>Calm (e)<br/>Excited (e)<br/>Decided (c)</p> <p>Funny(e)<br/>Thinking (c)<br/>Found out (c)<br/>Disappointed (e)<br/>Uncertain (e)<br/>Found (C)</p> <p>Crying (e)<br/>Uncertain (e)</p> <p>Decided (c)<br/>Wanted</p> <p>Reassured(e)<br/>Interpreting (c)<br/>Concerned(e)</p> |

**Table 10.20 Emotion and cognition words writing session 1**

| Word                  | Line number              | Emotion/cognition words |
|-----------------------|--------------------------|-------------------------|
| Found out (c)         | 7, 21, 25                | c                       |
| Decided (c)           | 10, 17, 30, 48           | c                       |
| Unsure / uncertain(e) | 14, 24, 28, 45, 133, 188 | e                       |
| Calm (e)              | 15                       | e                       |
| Excited (e)           | 16                       | e                       |
| Funny(e)              | 19                       | e                       |
| Thinking (c)          | 20, 142, 165             | c                       |
| Disappointed (e)      | 22                       | e                       |
| Crying (e)            | 27                       | e                       |
| Wanted (c)            | 31, 46                   | c                       |
| Reassured(e)          | 37                       | e                       |
| Interpreting (c)      | 38                       | c                       |
| Concerned(e)          | 40                       | e                       |
| Lonely (e)            | 44, 145, 168, 177        | e                       |
| Insecure(e)           | 49                       | e                       |
| Discouraged(e)        | 54                       | e                       |
| Emotional (e)         | 57                       | e                       |
| Annoyed (e)           | 65                       | e                       |
| Exasperated (e)       | 66                       | e                       |
| Retrospect (c)        | 68                       | c                       |
| Out of control(e)     | 81, 183                  | e                       |
| Ended up (c)          | 87                       | c                       |
| Disappointed (e)      | 102                      | e                       |
| Ended up (c)          | 108                      | c                       |
| Frustrated (e)        | 117, 163                 | e                       |
| Knew (c)              | 129, 162                 | c                       |
| Guilty (e)            | 136, 178                 | e                       |
| Failure(e)            | 144                      | e                       |
| Bad(e)                | 151                      | e                       |
| Emotional (e)         | 152                      | e                       |
| Tense (e)             | 153                      | e                       |
| Crying (e)            | 154                      | e                       |
| Defeated (e)          | 155                      | e                       |
| Judged(e)             | 160                      | e                       |
| Afraid(e)             | 161                      | e                       |
| Abandoned (e)         | 169                      | e                       |
| Plan (c)              | 176                      | c                       |
| Defective (e)         | 179                      | e                       |
| Stressed(e)           | 181                      | e                       |
| Wonder (c)            | 186                      | c                       |
| Regretful(e)          | 189                      | e                       |
| Focussing (c)         | 190                      | c                       |

**Table 10.21 Emotion and cognition words writing session 2**

| Word             | Line number            | Emotion /cognition |
|------------------|------------------------|--------------------|
| Thinking (c)     | 1, 10                  | c                  |
| Pinpointing (c)  | 2                      | c                  |
| Disappointed (e) | 5, 6                   | e                  |
| Know (c)         | 11, 15                 | c                  |
| Regret (e)       | 12, 14, 16, 20, 22, 28 | e                  |
| Hate(e)          | 13, 30                 | e                  |
| Wanted (c)       | 27, 29                 | c                  |
| Failure(e)       | 31                     | e                  |

**Table 10.22 Emotion and cognition words writing session 3**

| Word          | Line number  | Emotion /Cognition |
|---------------|--|--------------------|
| Realised      | 01,42,   | c                  |
| Responsible   | 02   | c                  |
| Disappointed  | 04, 08,  | e                  |
| Admitting     | 06   | c                  |
| Feeling       | 07, 12, 13, 14, 24, 28, 31, 33,<br>48, 51, 52, 54, 56, 60, 62, 63,<br>66 | e                  |
| Know          | 09, 26, 55, 64   | c                  |
| Rationalising | 10   | c                  |
| Critical      | 11   | c                  |
| Thinking      | 15, 21, 38, 50, 66   | c                  |
| Resolve       | 22   | c                  |
| Wish          | 25,  | c                  |
| Doubt         | 27   | e                  |
| Retrospect    | 29   | c                  |
| Reality       | 34   | c                  |
| Needed        | 35   | c                  |
| Wanted        | 59   | c                  |
| Learned       | 67   | c                  |

**10.3.10 Comparisons of emotion and cognition words between the three writing sessions**

The total number of emotion words in the first session were 30 (used 41 times) there were three distinct peaks within the text where more emotion words were used. The key emotion words throughout the first writing session were unsure or uncertain (six), alone or lonely (four), guilty (two) and out of control (two). The total number of cognition words used was 12 (used 21 times) the most common were decided (four),

thought (three), found out (three) ended up (two) and knew (two). Interestingly, 'decided' was only used at the beginning of the story and an element of musing or making sense occurred right at the end with the use of 'wonder'. It appeared that there was a thematic progression around loss of control and uncertainty about what was happening (Squire, 2008). The total number of cognition words used was 21; half the number of emotion words. Whereas in the second session the key emotion words used were regret (five), disappointed (two) and hate (two). The key cognitive words were thinking (two), knowing (two) and wanting (two). In the second session the emotion words transformed the theme from description towards a high degree of self-blame. Becky began to think about the future and to suggest ways that she could resolve future problems using the knowledge gained from the experience. This could be described as an attempt to resolve the key issues and to move on in her life (Squire, 2008).

Although the second session was much shorter in length, emotion words were used eleven times whereas the total for cognition was seven, so relatively there was an increase in cognitive words compared with the first session (41% as opposed to 29%). Unexpectedly, in the third session Becky referred to 'feeling' 17 times but used only two other emotion related words (disappointed and doubt). As 'felt' was referred to so frequently the percentage usage of emotion words for the third session was 48%, all other words were cognitive (52%). Pennebaker and Seagal (1999) suggested that those who benefit maximally from expressive writing tend to use a high proportion of emotion words in the first writing session and increase their use of cognitive words over the course of three sessions. In this case, it seems that the number and range of cognition words increased over time; however the distinction is not clear cut as the

number of emotion words also increased between the second and third sessions. Despite the cognitive word increase the second PTSD score was not reduced, but the slightly increased PTSD score may be explained by the lack of perceived support postnatally (Ford, Ayers and Bradley, 2010). However, in the interview Becky was asked if she found the writing helpful and although PTSD scores were slightly increased her perception was positive and in the following extract she identified the fact that she was more emotional when writing the first time compared with the second:

*"...if you've just written it and then you kind of forget about it that would have been helpful but I think it's more helpful to then ... (baby cries ) go back and think about it again . The first time you write about it it's quite (baby cries) emotional; and then once you write about it again you can ummmm almost feel a little more clear headed because you ...you've gotten some of that out so that you can think about it a little bit more critically and..."* (Lines 187-193)

## **10.4 Discussion**

### **10.4.1 The researcher's relationship with the data**

As previously acknowledged, in presenting a case I have not sought to generalise findings to other women but to link theory to my findings and thus gain understanding of an individual. However, before discussing the findings in more detail it is necessary to highlight my personal influences over the participant, choice of methods of analysis and interview process. Indeed my personal interaction in this particular case began with the relationship I already had with the woman who was an antenatal client. This may have influenced her to take part in the writing part of the study. In terms of choice of analysis I feel I could have been influenced by my original research hypothesis in that I was interested in the interplay of emotion and cognition because this related to Pennebaker and Beall's (1986) work on the efficacy of writing therapy for PTSD. I was also aware that when re-reading the transcripts from the

bracketing interviews I engaged in before and after data collection, I have a strong inclination to advocate for women and 'against ' the maternity system. This has been influenced by working as an antenatal teacher and contributing as a lay member in maternity fora.

Additionally, I am aware that during the interview process my desire to provide solutions rather than allow the narrative to emerge, could have compromised the quality of the data. In the case of Becky, I felt that in particular the interview was 'constructed', since I had already conducted it once and it had failed to record, so the second recorded result was more rushed and perhaps less 'natural'. It is also likely that the participant's perception of me as interviewer was different due to the error. Also because I had made an error I am aware that I was not wholly focussed on the participant and was instead concerned about my own 'performance' and appearance (Bishop and Shepherd, 2011).

#### **10.4.2 Interweaving themes**

After engaging with Becky's story and contemplating the various codes relating to communication it became clear that a number of interconnecting categories could be derived from this one theme. Examples of this were; the link between communication and her previous expectations, self-efficacy, control, relationships and the voice of self. These categories relating to communication appeared to overlap, however Josselson (2011) reassures that this is acceptable in narrative research and in fact just reflects the reality of lived experience.

## Communication

As can be seen from the analysis of Becky's story the lack of communication emerged as a dominant theme. Paradoxically although Becky had a high educational level and management responsibilities she was none the less unable to communicate her wishes during labour. It is interesting that her perception was not that she should have been told more, but that she was to blame for some of the communication difficulties. Previous research (Beck, 2006) attests that it is important that midwives work hard to ensure rapport with women, but throughout the narrative whilst she was in labour and in the postnatal ward little rapport or empathy was apparently developed. To the contrary, she had actually felt, judged, pressurised and disempowered by the midwives. Czarnocka and Slade (2000) found that women partially symptomatic for PTSD allotted blame to themselves and midwives, whereas fully symptomatic women only attributed blame to staff. Such narrative can and should be important for midwifery practice as a woman's narrative can enable professionals to access the experience of labouring women and how the women interprets her experience and through that access deepen understanding (Holloway and Wheeler, 2002). Interestingly the 'giving in to pressure' and 'being told what to do' codes are very similar and the latter emerged particularly strongly in the third writing session, which could suggest that there was an underlying voice of self that felt dominated by others and that on many occasions was successfully suppressed by others.



### **Communication self-efficacy and support in labour**

A New Zealand Study by Berentson-Shaw, Scott and Jose (2009) found that high self-efficacy (SE) scores in labouring women predicted decreased perception of labour pain and decreased distress in labour as well as increased birth satisfaction. The authors suggest that if the SE score is high, individuals are likely to utilize more cognitive and behavioural strategies to cope with pain. This research appears to contradict the findings for Becky as she had high self-efficacy and was not satisfied with her birth experience. However, it is worth reviewing this in the light of the work of Green and Baston (2003), who suggest that if women are assisted to deal with pain it can influence their internal control, while if women feel cared about during labour this will affect their external control. Both elements are necessary to contribute to overall levels of satisfaction. In this case, because of lack of support from midwives, Becky's low perceived level of control subsequently led to low levels of satisfaction.

### **Issues of control, ownership of body and voices of self**

Snowden et al. (2011) suggest that the medical model of childbirth is pervasive in Western society. It is embedded in the culture surrounding childbirth and heavily linked to the concept of risk; where women subordinate their needs in favour of the baby's health. In her story, Becky relinquishes control and ownership of her body to the professionals resulting in a loss of autonomy and power in the situation. This links strongly with the guilt which Becky expressed later in the story in relation to her baby, which could have been influenced by her previous expectations of what an ideal mother should be like and her feeling that she was somehow defective because

breastfeeding was difficult. Also, initial feelings of guilt were evident when she required medical attention after the birth and could not see her baby; this is supported by the findings of Furuta, Sandall and Bick (2014b)

Given that Becky initially had high expectations of her birth experience it is pertinent that Gibbins and Thompson (2001) found that women may feel empowered whilst attending antenatal classes, however if during labour midwives fail to explore and discover the wishes and feelings of the women in their care they may not feel empowered during the labour. On the whole, the midwives who came into contact with Becky seemed to remove control from her and so she felt disempowered.

In addition, Furuta et al. (2014a) suggest that since questionnaires are completed postnatally (and in the case of Becky when she was experiencing PTSD), this may bias the woman's recollection of how much control she felt she had during labour. Although Stevens, Hamilton and Wallston (2011) suggest that depressive symptoms in pregnancy are less likely when a woman has a higher 'health care professional orientated locus of control', what appears to be more important than the internal locus of control is the level of perceived control during the labour experience (Knapp, 1996). Possibly it is this that is more strongly associated with the subsequent development of PTSD and this is supported by the findings in this case study.

### **What caused her to experience PTSD?**

Ehlers and Clark (2000) posit that if an individual processes the traumatic event in a way that produces a sense of current threat, they will experience PTSD, but it is unclear what constitutes that sense of threat in the case of Becky. Ehlers and Clark (2000) suggest it could be due to individual vulnerability including prior beliefs,

experiences, coping style, the characteristics of the trauma and the disturbance of autobiographical memory. However, what is more likely to be important here is excessive negative appraisals of the trauma, especially since it is probable that the postnatal events as well as the birth may have contributed to the perception of the experience as traumatic. Ford, Ayers and Bradley (2010) used Ehlers and Clark's (2000) model with postnatal women to ascertain whether social support ameliorates the effects of PTSD; they found this to be the case. This was perhaps also true for Becky because, although her questionnaire results showed she felt supported, her story did not corroborate this and the lack of support could have contributed to the continuance of the PTSD symptoms. What also became apparent by the third writing session was Becky's dissatisfaction with the level of support received from her partner and this has also been shown to be a potential predictor for PTSD (Czarnocka and Slade, 2000).

### **Type of PTSD**

Adshead (2000) reviewed treatments for PTSD and described complex PTSD, where the sufferer's idea of 'self' is changed. This PTSD is based on symptoms of shame and guilt rather than fear and can be associated with an aetiology resulting from abuse or long term torture. In this case research has shown that the individual will experience alterations in their internal systems of meaning (Herman 1992 in Adshead, 2000). Adshead (2000) also suggests that PTSD resulting from a single incident is likely to be based on fear reactions relating to the event. Such PTSD is likely to respond well to therapy such as exposure therapy, stress inoculation and cognitive processing. These therapies are effective in reducing symptoms of avoidance and intrusion which predominates in fear based PTSD. They will also be successful in

patients where the precipitating event was relatively discrete and there had been no previous history of mental illness. However, she suggests that treatments are less effective for guilt and shame based PTSD. It may be possible then that Becky's PTSD, although arising from a single incident and its sequelae, also involved a strong shame component and a smaller fear component, which may be why the symptoms were not reduced after the intervention.

### **Expectations**

Becky's story showed that she approached labour with strong expectations and beliefs. In a recent Cochrane review, Gagnon and Sandall (2011) found that attendance at antenatal classes often encouraged a woman to be assertive and to express her birth wishes and concerns. In the case of Becky she felt empowered to voice expectations around water birth and not using opiates in labour. However the review suggests that the encouragement to express desires about labour may result in disappointments when the birth does not go according to plan. Hauck et al. (2007) concur that if expectations are predominantly met, women appraise the birth as satisfying. However it is interesting that their results also showed that it is uncommon for women who plan specific 'natural' birth experiences to achieve a positive birth experience. This raises the question as to whether antenatal educators set women up to fail.

### **Social support and marital relationship**

Another factor of possible significance from the questionnaire was Becky's awareness of relationship difficulties with her partner. As discussed previously, Ford, Ayers and Bradley (2010) sought to investigate a predictive model for PTSD based on

psychological factors originally proposed by Ehlers and Clark (2000). The model suggests that social factors contribute towards the maintenance of PTSD over the longer term. In this case there were significant social factors inherent, such as relationship difficulties, lack of support from friends and family living abroad, so these may have contributed to maintaining PTSD symptoms over time. What is interesting about the findings for social support is the inconsistency between the storied accounts, which showed a desire for more support, and the social support questionnaire, where responses seemed to indicate that she felt supported. However since Becky completed the questionnaires a few weeks after the birth of her baby and she wrote and was interviewed several months later this may indicate an increasing desire for more social support over time.

The case study findings indicate that by the third writing session Becky's dissatisfaction with her husband had increased. Even when PTSD has not been experienced authors suggest that women can feel that relationship quality has declined in the first six months after having their baby (Belsky, Lang and Rovine, 1985). Meijer and van den Wittenboer (2007) attribute this in part to insomnia in both parents caused by the infant crying so the finding in this case confirms that of earlier studies. Belsky, Lang and Rovine (1985) have suggested that in the first few months after a first child is born there is some renegotiation of roles in the relationship and lack of perception of marital quality, particularly for women. Acitelli (1992) found that women show greater marital satisfaction in this situation if their partner is able to assume more of the 'relationship' work or childcare. However Pennebaker (2002) suggested that an additional effect of writing therapy was that it facilitates a transformation in the way people see themselves in relation to others. This could

account not only for Becky's gradual dissatisfaction with her partner but also for the acknowledgment, over the course of the writing sessions, of an increased awareness of the role the staff played and a decrease in self-blame.

#### **10.4.3 Mapping of main themes from case study**

Figure 10.5 shows the key emergent themes related to Becky's perceptions about herself, her beliefs and her personality (selfhood) and how she related to key people around her during the birth. Triangulation was demonstrated between expressive writing, interview and questionnaire findings showing a consistent relationship between high self-efficacy, expectation and self-blame.

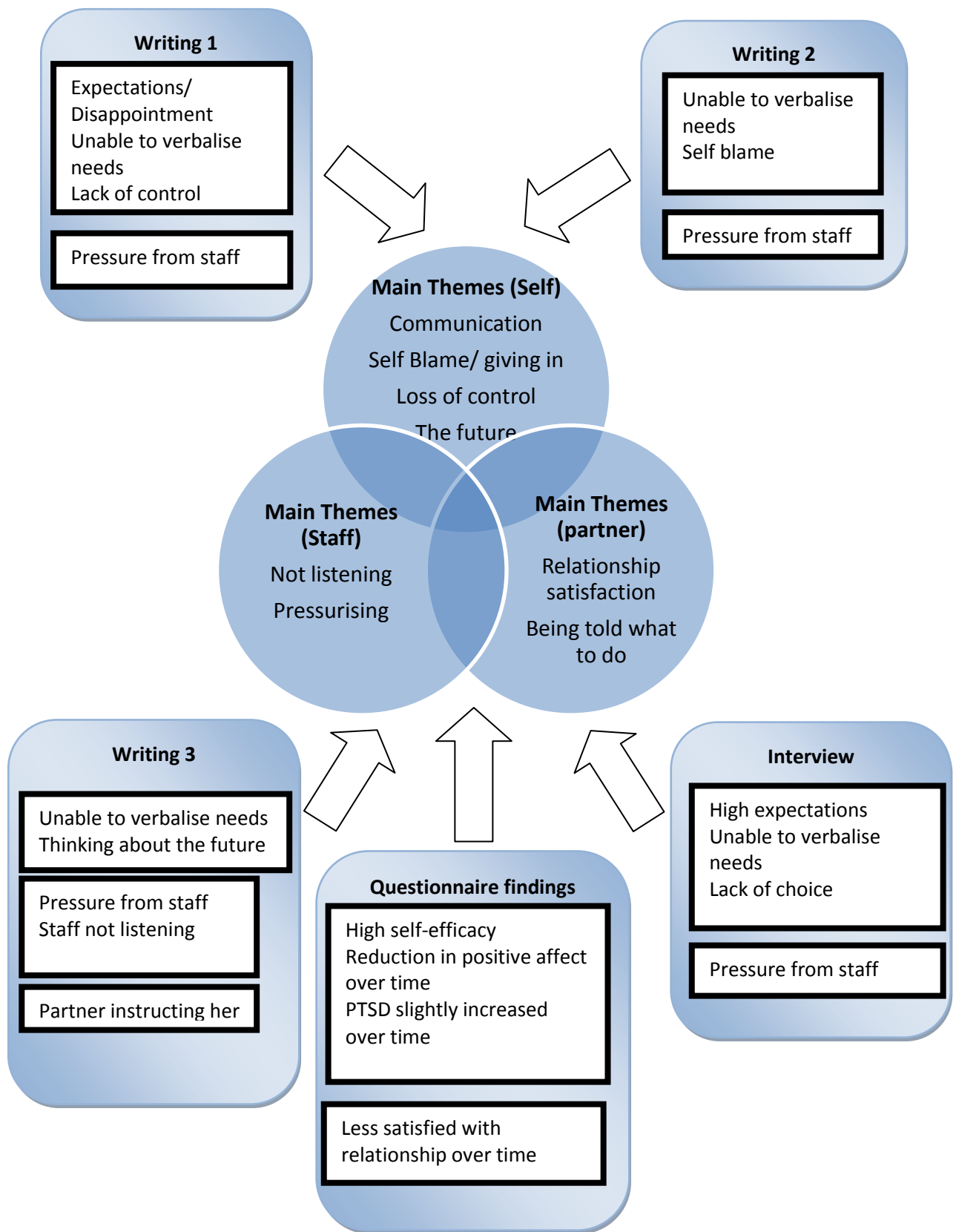


Figure 10.5 Mapping of main findings and interactions from case study

## 10.5 Conclusions

In this case study data have been analysed from three sources; quantitative questionnaires, a semi structured interview transcript and three expressive writing transcripts. This has revealed a complex picture of the interaction between Becky's personality and past experiences, her relationship with her partner and staff and the impact of PTSD after a traumatic birth. As can be seen from the model derived from the case study findings (figure 10.5) three main overlapping themes emerged; self, partner and staff. Becky was an individual with high expectations of her labour, as evidenced from the first writing session, interview and questionnaire. During labour she felt unable to verbalise her needs as she was pressurised by staff and instructed by her partner, as evidenced from the questionnaire, second and third writing sessions and the interview. This resulted in her blaming herself for giving in to pressure, experiencing PTSD and becoming less satisfied with her dyadic relationship, as evidenced by the second writing session and the questionnaires. Additionally she became worried about how the birth experience and its sequelae would impact upon the future, as evidenced from the third writing session. The evidence from this one case highlights key issues for women in labour; women come to the experience with a variety of expectations, however if these are not met and they feel unsupported or feel they have lost control this can impact upon their psychological health. The in depth analysis and comparisons conducted in the case study have been used to triangulate with findings from the qualitative and quantitative phases of the study in chapter eight and nine.



## **11 Discussion**

### **11.1 Introduction**

In this chapter I initially summarise the findings in relation to the main aims of the study. Subsequently I discuss findings and themes which have emerged during the research process, the strengths and limitations of the research, the main contribution to the body of scientific knowledge and recommendations for further research.

The original primary research aims of the study were to ascertain the level of PTSD in a cohort of postnatal women, and to determine whether a correlation existed between PTSD and PND in that cohort. The study has added to the literature currently published regarding the innate or environmental characteristics that can affect the occurrence of PTSD in postnatal women. The main aim of the quantitative study was to determine the impact of four groups of independent variables or potential predictors on PTSD and general psychological health as measured by the GHQ-28 (Goldberg and Hillier 1979). The variables were conceptually delineated as potentially confounding factors (demographic factors, early parenting experience, maternal confidence, past PTSD, PND and partner support) the birth experience, personality variables (affects, and alexithymia ) and coping variables (self-efficacy, attachment and perceived social support). Previous authors have suggested that some of the above variables may act as predictors for PTSD but few studies have explored this large range of variables on a population of postnatal women. I conducted two literature reviews; the first entailed investigation of secondary research on postnatal therapies for PTSD. In the second I explored previous literature about writing therapy as a means of

reducing PTSD resulting from alternative aetiologies. In response to these I have added to the academic field by reporting on a pilot study exploring the feasibility of writing therapy as a possible intervention for PTSD in postnatal women. In the qualitative component of the study I used a single case and a narrative approach with seven postnatal women to explore their experience of PTSD and its sequelae, their ability to utilise writing therapy and the impact of potential predictors at a personal level. In the discussion I also examine why writing was not used by postnatal women and evaluate this in the context of methodological and population issues.

I felt it was important to focus this discussion around the main predictors set out in chapter five in order to provide a coherent approach and simplify the organisation of the discussion for the reader. During the process of data analysis models have emerged which describe a complex interaction between potential predictors and newly emergent factors which will be discussed. The current chapter also includes an exploration of the reasons why writing therapy may not be suitable as an intervention for postnatal women. Because the underpinning epistemology of the work is pragmatic, I felt it was also important to relate these findings to the wider context of Western society, our cultural beliefs regarding birth and the implications for midwifery practice. Finally I discuss the strengths and limitations of this study and recommendations for further research.

## **11.2 PTSD Prevalence in the Population Studied**

In the current study 15.6% of women were identified with full PTSD and a further 48.3% showed symptoms of partial PTSD. In chapter eight I discussed reasons why these findings may seem high. However it is also important to consider these

findings in terms of the type of population studied. Previously Alcorn et al. (2010) found a rate of 3.6% at four to six weeks post-birth; however they excluded those who had been previously exposed to a traumatic event and in the current study those with a past trauma were included. Furuta et al. (2014) report on a large inner city UK study and suggest a PTSD rate of 6.4% for intrusion and 8.4% for avoidance in women with severe maternal morbidity resulting from the birth. The current study population were from a largely rural demographic. Interestingly Ford, Ayers and Bradley (2010) found that 0.8% of women in their somewhat smaller study met the full criteria for PTSD. However a far larger percentage was partially symptomatic (45.2%). It is important to consider that the population in the current study was extremely likely to comprise those with associated maternal morbidity (and therefore increase the risk of PTSD) (Grekin and O'Hara 2014). This is because those who had experienced assisted birth or Caesarean Section were more likely to be in hospital long enough to be approached to take part in the study, whereas those with fewer physical complications resulting from the birth would not necessarily stay overnight and so would not be available to potentially participate (see pages 223 and 224).

It could be argued that the symptoms of partial PTSD could actually be regarded as normal responses after childbirth (increased vigilance, disturbed sleep, remembering the experience) (Ford, Ayers and Bradley, 2010). However, in agreement with Tedstone and Tarrrier (2003) I would suggest that just because women only display some symptoms of PTSD their condition should not be ignored by health professionals. Given that experiencing PTSD has a direct impact on physical health (Pacella, Hruska and Delahanty, 2013) this alone should alert health professionals to the importance of PTSD in the postnatal population. In the current study a correlation was found

between past trauma and current PTSD, which concurs with previous work (Boorman et al., 2014). However, this could be explained in two ways; women may either have been vulnerable to post birth PTSD because of their exposure to past events or they could have had chronic PTSD which was augmented by the birth experience. In the current study I asked women to report on previous trauma which was then included in regression analysis and showed a significant correlation with PTSD. However the interview findings support the view that all women found the birth experience had impacted upon their postnatal life.

The quantitative phase of the study highlighted several demographic variables which correlated with PTSD and GHQ-28. These were perception of difficulties with infant feeding and sleeping and an unplanned pregnancy. Previous research has found that an unplanned pregnancy is a risk factor for antenatal depression (Redshaw and Henderson, 2013) and it seems that this may also be the case for PTSD. In terms of perceived problems with infant feeding and sleeping a woman's perception of problems could be exacerbated by poor psychological health (Hurley et al., 2008) or potential problems may be worsened by over anxious maternal responses (Coulter and Harris, 2003). Giallo et al. (2013) suggest that early maternal mental health impacts upon infant emotional and behavioural development. Thus the relationship between fundamental infant needs and maternal health underlines the requirement for effective family support for vulnerable groups in order to prevent an intergenerational impact. This will be discussed later in terms of the most effective public health response.

One of my study aims was to ascertain any co-morbidity between PTSD and PND in this particular cohort of women. Postnatal depression was found to be highly

correlated with PTSD, adding to the postnatal psychological morbidity experienced. The current findings are close to those of Czarnocka and Slade (2000) who showed that 10.6% of the population studied had PND; the number in the current study was 14.5%. I found comorbidity between partial /full PTSD and PND of 9.1%, which confirms the findings of Parfitt and Ayers (2014), who report that 8.3% of women experiencing postpartum mental health problems also had PTSD, depression, and anxiety. The current findings show that recommendations for improvements in perinatal care are warranted, in agreement with Czarnocka and Slade (2000.), who called for studies to objectively assess levels of care in labour in order to identify those who require more support. This is especially important since currently postnatal depression is screened for six weeks after birth but although approximately 10% of women with symptoms of PTSD will also have PND a potentially large number will experience PTSD only and they will not be routinely identified using the current system. A recommendation for the future would be the introduction of a PTSD screening instrument alongside the current PND screening.

### **11.3 Personality and Aspects of Selfhood (Affect and Alexithymia)**

#### **11.3.1 Affect**

The quantitative study results show that general psychological health (and not PTSD) can be mediated by affects via the birth experience, particularly if the women perceived the experience as painful. In the interviews with selected women pain did not emerge as one of the more pervasive codes, although women referred to it many times when describing their birth stories. Despite this finding, the quantitative results showed that perception of pain during birth mediated the effect of affects and

alexithymia on general and psychological health. It is hard to equate particular codes derived from the semi structured interview transcripts with 'affect' data. However it is possible that those reporting disappointment about the birth would have been appraising it negatively; this relates to the finding of O'Bryan et al. (2014) that negative reactions to negative experiences enhance a person's sense of uncontrollability and unpredictability. This not only explains how affect is related to lower psychological health in the quantitative part of the study but also to the important theme derived from the interviews relating to lack of control and powerlessness and helplessness. This will be discussed further below in relation to findings regarding self-efficacy. In the general PTSD literature there is evidence to suggest that PTSD interacts with and increases the perception of chronic pain (Amir et al., 1997). The current study highlights the important relationship between the memory of pain and psychological morbidity. It is not clear whether increased levels of negative affects in an individual induce them to exaggerate the significance of the pain they experienced during birth or whether remembering and dwelling upon the pain contributes towards persistent low mood. Future work is recommended with a population of postnatal women in order to determine the direction of the relationship.

### **11.3.2 Alexithymia**

Analyses of quantitative data show a novel finding in this postnatal population in that a meditational relationship between affects, alexithymia and general and psychological health via the birth experience was found to exist. Interestingly in the current study a similar relationship was not found for PTSD.

In terms of alexithymia, the case study indicates that Becky could easily identify her feelings and emotions, could describe her feelings to others and could easily make sense of her thoughts. This negative finding for alexithymia is unsurprising given that she participated in writing therapy and was happy to be interviewed. As previously discussed, alexithymia is strongly linked to the numbing component of PTSD and it is probable that some of the women whose interviews are discussed in the qualitative chapter had alexithymic tendencies.

In agreement with Evren et al. (2010), whose study participants were male alcohol dependent patients with lifetime PTSD, the quantitative findings in the current study showed a correlation and regression relationship between PTSD and alexithymia in postnatal women. Additionally alexithymia was found to mediate poorer psychological health if higher levels of pain during birth were experienced. Thus one could conclude that women who are unable to express or label emotion relating to pain will have reduced psychological outcomes. There is evidence from this study that poorer psychological health is predicted by alexithymia. In chapters six and eight I discussed the idea that some authors have proposed that the alexithymic trait is actually indistinguishable from the numbing component of PTSD (Badura, 2003). Thus is it possible that women with a 'non clinical' or partial level of 'lifetime' PTSD will not only score high for alexithymia due to numbing but will be less able to process their emotions about a painful birth experience making them vulnerable to further psychological morbidity. A resultant recommendation from this finding would be using a screening tool for alexithymia antenatally in order to direct appropriate levels of midwife support or pain relief during labour. However as discussed in chapters five and eight a self-report measure for those with alexithymia may not be the most

effective means of assessment. Thus a greater emphasis on the role of the community midwife to assess levels of alexithymia during antenatal visits is warranted.

#### **11.4 Self-Efficacy, Birth Perception, Control and Expectation**

There are many examples in the midwifery literature of the importance of perception of control over the birth experience and its influence on psychological morbidity (Furuta, et al., 2014; Soet, Brack and Dilorio, 2003; Czarnocka and Slade,2000). In the current study my quantitative findings supported those of these authors as I found a significant correlation between self-efficacy and PTSD. Additionally, the case study and interview findings would seem to suggest that the sense of control over the birth experience is important to women. In the model which emerged as a result of the case study three main themes were apparent; aspects of self, staff and partner. Becky related her lack of control to her inability to communicate her desires effectively and to the idea that she gave in to pressure from midwives. She also revealed a high expectation about the birth and experienced self-blame and guilt when it did not meet her expectation.

Previously Talbot (2012) reported on a number of studies that suggested that women with high self-efficacy are able to recover better from a birth that did not meet their expectations, however Soet, Brack and Dilorio (2003) suggested that when childbirth experience does not match antenatal expectations it may be perceived as more traumatic. In relating this to the case study findings in the current study there appears to be an interesting contradiction; Becky had both high self-efficacy and strong views about her ideal labour. She subsequently experienced postnatal PTSD so in this case it appears that her birth expectations were not met thus rendering her



vulnerable to PTSD; however her high self-efficacy did not protect her. Theoretically this could relate to Foa and Rauthbaum's (1998) emotional processing theory for PTSD which suggests that those with more ridged pre-trauma beliefs make them more vulnerable to PTSD.

A plethora of literature supports the idea that expectation about either the birth or motherhood may contribute to postnatal depression. According to Tamaki, Murata and Okano (1997), there is a wide variety of risk factors for postnatal depression including worries about childbirth. In a qualitative study, Nicholson (1999) interviewed mothers who suggested that it was possible that naive expectation about motherhood had contributed to their depression, while more recently Eastwood et al. (2012) showed that there was a strong association between unmet maternal expectation and postnatal depression. Qualitative interviews with postnatal women (Coates, Ayers and deVisser, 2014) revealed similar themes to the current study such as blame, detachment and also unmet expectations around the birth experience in women who had experienced birth trauma. However, there seems to be little other qualitative research around expectations and their specific impact on PTSD. It is not surprising that the current qualitative findings support the proposal that unmet expectation is associated with PTSD in postnatal women but this appears to be a relatively new finding that merits further research.

If birth expectation is not met it is possible that women would equate this with a feeling of powerlessness. In the case study the participant felt that the staff did not listen to her and with regard to her partner she felt instructed and thus less in control. Becky's self-efficacy score was high, which may indicate that she therefore perceived the lack of control over her birth more acutely but this contradicts Berentson-Shaw,

Scott and Jose (2009) who found that high self-efficacy predicted decreased perception of pain and increased birth satisfaction. However the type of birth experienced by women in the Berentson-Shaw, Scott and Jose (2009) study did not appear to affect the role that self-efficacy had on women's perceptions. Of course case study results should not be used to generalise and how individual women interpret their birth experiences will vary (Abma and Stake 2014). However another aspect relating to augmented births in particular may be relevant here. Becky's labour involved augmentation with synthetic oxytocin. Scheele et al. (2014) found that artificially administered oxytocin caused women to exhibit more trusting and altruistic behaviour, which may be necessary for their nurturing role. However Plested (2015) suggests that when oxytocin is administered in labour it could cause women to be more susceptible to suggestions from staff and suppress their own desires. I would suggest that possibly the physiological response to oxytocin could potentially suppress self-efficacy beliefs during labour and in some women, such as Becky, cause them to appraise their interactions during labour negatively when they recount the birth postnatally. Thus I would recommend that more research be conducted on the interaction of drugs in labour and their impact upon women's beliefs about control and support.

Women who chose not to write about their birth also described feelings of powerlessness. In the model I have derived from the qualitative findings I have linked this aspect to the women's sense of self (including emotions of guilt and shame, resilience and ability to communicate). Additionally Green and Baston (2003) suggest that women feel higher levels of control if their pain has been reduced. Several

women who were interviewed reported high levels of pain and so this may explain their lower sense of perceived control.

Control cannot be discussed in isolation from power. Several of the women interviewed could be described as competent articulate professionals and one could surmise that they were used to exerting control in their lives normally. Thus the power balance seems important in the context of cultural assumptions, as was discussed in detail in chapter nine.

However, the idea of self and the changes surrounding the 'birth of a mother' merit consideration here. Darvill, Skirton and Farrand (2010) in research with first time mothers found that perception of self changed during the transition to parenthood and beyond. Forssen (2012) suggests that the perspective of a woman who has experienced trauma during birth influences her recovery. Thus a transition that culturally may be assumed to be joyful is actually the opposite for some women and this could have an impact on their perception of themselves as new mothers. Weaver and Ussher (1997) explored women's complaints that societal myths lead to disillusionment when the reality of motherhood differs from their expectations. Women in their study were well aware of societal discourses surrounding motherhood but still felt overwhelmed and disillusioned by the reality. Given that the transition to motherhood and the changes in self which accompany this are regarded as challenging without additional complications, it is important to consider the additional burden posed by PTSD at this time. Furthermore Lumley (2004) found that those with high levels of alexithymia were unable to change their sense of self, so it is possible that alexithymic individuals, who are not only more vulnerable to PTSD, are also trapped by a negative view of themselves as mothers.

## **11.5 Attachment, Alexithymia, Emotion Regulation, Communication and Support**

### **11.5.1 Attachment and resilience**

There was univariate correlation with PTSD and general health for attachment pattern in the current study. This finding however did not show a direct relationship. Thus there is some agreement with the findings of Ayres et al. (2014), who suggest that attachment pattern is likely to predict PTSD. However their regression analysis found that avoidant attachment style moderated the relationship between operative birth and PTSD and this was not replicated in the present study.

In the current study I used a self-report measure to assess participants' feelings about close relationships (Relationship Scales Questionnaire (RSQ) Hazan and Shaver, 1987). However, a more reliable result may have been achieved by using the Adult Attachment Interview (AAI) (George, Kaplan and Main, 1985). As discussed in chapter eight the AAI was thought to be inappropriate for use in the current study not least because it can only be administered by trained clinicians but it also because it contains questions which relate more to childhood experience than subsequent adult interactions. It could be argued however, that since during the life course original attachment patterns are influenced by subsequent relationships, the proxy measures actually produce a more accurate representation of current attachment. An additional issue with reliability was also introduced owing to the self-report nature of the measure, since it has been argued that participants may not feel they are easily able to adequately characterise their relationship according to the questions asked (Daniel, 2006).

Results from the case study showed that the individual investigated had a secure pattern of attachment and this would perhaps explain why she expected to gain support from the midwives during labour (Ayers et al., 2014). In her case though the midwives did not provide the level of support she expected. It is interesting to explore the impact of attachment on emotional resilience after a labour, such as her's, that she perceived as traumatic and her vulnerability to PTSD. Rutten et al. (2013) explain resilience as a way of adapting successfully when exposed to adverse events. Karreman and Vingerhoets (2012) suggest that those with secure or dismissing attachment patterns reappraise traumatic or stressful events more and this emotion regulation contributes to a higher level of resilience. However, dismissing individuals may be suppressing negative emotions in order to minimise any impact on themselves therefore leading to an appearance of stoicism. This could explain the apparent stoical nature of some of the interviewed women who had PTSD. Perhaps they appeared stoical because they had a dismissing or avoidant attachment pattern and had avoided processing emotion relating to the trauma (Becky, Gwen and Hanna). Karreman and Vingerhoets (2012) suggest that reappraisal is a necessary feature of recovery. The implications for midwifery practice are that opportunities for sensitive review of labour notes should be offered in every maternity unit and recommended for those who may have regarded their birth experience as traumatic.

### **11.5.2 Communication**

Undoubtedly there is likely to be a relationship between alexithymic tendencies and general communication abilities; indeed Lane et al. (1996) suggested that those with alexithymia would be more likely to also have difficulties in emotional information

processing. Some authors have suggested that alexithymia can impact on the couple relationship; however this is more likely in men than women (Perusse, Boucher and Fernet, 2012). Since the quantitative phase of the current study found a significant relationship between alexithymia and PTSD in this cohort, it could be suggested that those who found it hard to express their emotions about the birth also had difficulties expressing emotions generally and they may have therefore experienced difficulties in their couple relationship, resulting in them feeling less supported by their partner. In terms of the models proposed in the two qualitative chapters, features of communication were dominant from the synthesis of birth stories. In the case study, barriers to communication occurred because Becky could not verbalise her wishes, additionally lack of effective staff communication resulted in Becky feeling she was not listened to and her level of satisfaction with her partner was reduced because she felt her partner was instructing her about what to do. Although in Becky's case there is no suggestion that the communication difficulties were resulting from alexithymia, as her questionnaire results indicated that she was not alexithymic. In the model proposed after analysis of interviews with women, I have chosen to present inter-relationships between communication (from women to midwife/midwife to woman/ partner or key supporters to woman and vice versa), aspects of personality and also of control as key emergent themes. The analysis shed light on how these important aspects of the women's experiences were also linked to their perception of the birth experience. Thus if midwives did not communicate adequately, women felt powerless and this affected their perception of the birth. Alternatively, if women were unable to communicate their wishes and feelings they did not feel in control and this also affected their perception of the birth. As previously mentioned, those who had a high

internal locus of control may have been less satisfied about their experience (Knapp 1996) and perhaps also more vulnerable to PTSD subsequently. Also as discussed in chapter nine it is possible that some of the women interviewed may have had alexithymia or insecure attachment patterns as a result of past experiences and this could have affected their ability to communicate their emotions or gain effective support after the birth (Mallinckrodt and Wei, 2005).

Together the qualitative findings reveal a complex picture regarding communication. Past research has emphasised the importance of midwifery communication (Czarnocka and Slade, 2000; Morgan et al., 1998). However the current study highlights the fact that women experience difficulties communicating both during labour and postnatally. Those with alexithymia may additionally have difficulties expressing emotion which may then affect the support they can access. It is therefore vital that midwives appreciate their influence over the labour experience and understand that labour may impede standard forms of communication for women. In labour, suppression of desire to communicate could be caused by the arduous nature of the labour (Whitburn et al., 2014), the actions of the hormones of labour on cognition (Burcher, 2013; Odent, 1984) or negative experience of interaction with health professionals (Wijma, Soderquist and Wijma, 1997). This could then relate to the guilt expressed by some women who were interviewed about their perceived ability to communicate, because they may have thought that if they had communicated more effectively they could have altered the outcome. The interviewed women reported that efforts made by them to communicate postnatally about their needs had met with mixed responses from health professionals. As discussed earlier, maternity services in England currently do not offer either antenatal

screening for vulnerability factors or postnatal screening for PTSD; the health service relies upon women to report their own symptoms. Women experiencing PTSD may thus struggle with a symptom profile which would not necessarily facilitate disclosure and also believe that they do not have unusual post birth symptoms and so they are not worth reporting. Thus the onus is on health professionals to either identify those at risk ante-natally or screen post-natally to ensure timely treatment is offered.

It is interesting to explore women's ideas about communication regarding birth. They may have expected to be able to communicate their needs and desires in the same way as usual in day to day life and may not have considered the impact that the hormones of labour and pain can have upon cognitive function (Burcher, 2013). Burcher eloquently expresses the perspective of obstetricians who are caught up in the dilemma of choosing an appropriate course of action when a woman's wishes in labour conflict with her birth plan or when she cannot communicate coherently. However, the idea that women in labour lose cognitive clarity may in fact be necessary for the action of the main hormones of labour (Odent, 1984). An additional argument pertinent to the labour situation is that Western cultural assumptions revolve around the desire to remove pain as it is perceived to be unwanted and has associations with ill health (Lowe, 2002). However some women may not perceive a certain level of pain as unacceptable, despite the objective assessment by caregivers that they are in need of rescuing from it. Thus women's voices are often subsumed by the dominant biomedical model of childbirth and their embodied way of knowing, as suggested by Parratt and Fahy (2011), is disregarded.



## **11.6 The Role of Perceived Pain**

In the above section I discussed pain as a dominant theme, first as a mediating role for the impact of affects and alexithymia on general and psychological health and second in terms of its interaction with perceived control in labour. These findings, I feel are directly related to Western accepted ideology surrounding pain and its role in labour. The idea that labour pain is unique and necessary for the normal progress of labour is not new (Lowe 2002). Lowe (2002) also suggests that anthropologically it could have arisen as an indicator for women to reach a place of safety before the birth of their infant. However in recent research Whitburn et al. (2014) suggest that state of mind during labour could directly affect perception of pain in that women who remained focused open and accepting reported the birth experience more positively, while catastrophising thoughts during the labour led to negative evaluations of the birth subsequently. Thus expectation about both the degree of pain and an understanding of its role seem to be important factors that midwives and childbirth educators need to consider when supporting women antenatally. In individuals identified with alexithymia antenatally there is an additional need to carefully consider counselling about pain relief and full discussion of the options available. Despite this, we have to acknowledge that our Western society is strongly influenced by the biomedical model of pain previously discussed in chapter nine.

## **11.7 Complicating Factors**

In their meta-analysis, Brewin, Andrews and Valentine (2000) report that additional life stresses operating during or after the trauma could outweigh pre trauma factors in predicting PTSD. However the analysis was undertaken on 85 primary sets of

data, only two of which had included subsequent stressful events as potential predictors. Epstein, Fullerton and Orsano (1998) suggest that one of the risk factors for development of PTSD in a study population of disaster workers was other stressful life events in the six months after the trauma. More recent research (Chung, Allen and Dennis, 2013) with those experiencing PTSD as a result of epileptic seizure found that stress resulting from other trauma was an important predictor. However, there seems to be a dearth of post childbirth PTSD literature on this topic. The only postnatal study investigating the relationship between concomitant stressful events and PTSD (Furuta et al., 2014) that I identified showed no effect modification on PTSD by stressful events in the six to eight week period following birth. There appears to be no published qualitative research in this area either, thus further research was warranted. In the current study the importance of complicating factors or other stressful events emerged in many of the women's stories. Thus, as far as postnatal PTSD is concerned, this is a relatively novel finding. Most of the women interviewed who had PTSD were also experiencing another stress inducing element in their lives. Various authors have explored examples of populations with lifetime PTSD (Lemieux and Coe, 1995; Brady et al., 2004), which becomes re-activated by successive traumatic incidents, particularly in abuse related PTSD. However the picture with this postnatal cohort appears to be different. There are several possibilities here, first individuals already had chronic PTSD symptoms before the birth, which may have been due to preceding complicating events or because they were specifically vulnerable individuals. A second possibility is that the birth added to other events that were experienced within a short space of time to become key influences on the PTSD experienced. Examples from the women in the current study included Hanna, whose baby was subsequently found to have had

a stroke before birth and Emma, whose business collapsed just after the birth. It is therefore possible that the PTSD symptoms experienced by these women were not solely childbirth related and perhaps PTSD would not have occurred in the absence of the additional complicating factors. It could be posited then that in some women an amalgamation of events contributed to the experience of postnatal morbidity. This unexpected finding would not have emerged without in depth interviews of a small number of women. As discussed earlier, it is possible that past PTSD related to chronic ill health may have been implicated for two of the women interviewed (O'Donovan et al., 2014) but the rest of the women experienced concomitant stressful issues postnatally. In future authors of quantitative work should control for past trauma; additionally further qualitative research is required to fully explore the impact of multiple stressful events on this population.

### **11.8 Support**

Hierarchical regression analysis performed in the current study did not show a significant association between social support and PTSD or partner support and PTSD, although both measures did show univariate correlation with PTSD. This conflicts with findings by Ford, Ayers and Bradley (2010), who suggest that symptoms were more likely to be maintained at three months postpartum if the women experienced low levels of social support. In contrast Vossbeck-Elsebusch, Freisfeld and Ehring (2014) used hierarchical regression analysis similar to that used in the current study and attributed cognitive variables as having stronger predictive value than social support. The findings from the case study show that Becky was disappointed as she felt unsupported by her partner and was relatively isolated from peer or family support. A

study by Iles, Slade and Spilby (2011) found that when one partner experienced PTSD or depression, the possibility that the other partner would also experience psychological morbidity was also increased. It is possible that Becky's partner had also been affected by the experience and was therefore less able to offer support. In this particular case it is possible that the effect on Becky was more intense because her family lived abroad. Alternatively perhaps, those who perceived low levels of support already had an insecure attachment pattern that exacerbated their perception of reduced levels of support (Toldsdorf, 1976). In the current study it was not possible to ascertain whether the underlying attachment pattern was implicated or whether women experiencing PTSD were more likely to perceive reduced social support despite the objectively assessed levels (Clapp and Beck, 2009), which could be due to excessive negative appraisal (O'Bryan et al., 2014).

In the qualitative study women's stories reflected the value placed upon female friends and mothers by all of the postnatal women interviewed. In addition, a supportive, close and empathetic relationship with midwives perinatally was also thought to be important. This finding concurs with that of Coates, Ayers and de Visser (2014) who reported that postnatal women often felt uncared for in the healthcare system. Although individual instances where midwives didn't listen or communicate well were key features of each story, unexpected support from other professionals was also valued. Women had often made attempts to access their notes, midwifery managers or GPs in order to make sense of their experience but had met with limited success. There is some pilot study evidence however that health visitor led postnatal screening for psychological ill health is effective in providing an individualised care pathway for postnatal women and their families (Milford and Oates, 2009).

In terms of effective post-natal support for those with PTSD symptoms availability differs geographically (National Childbirth Trust, 2014). There is conflicting literature regarding the importance of women's postnatal mental health and the wellbeing of their offspring. Parfitt, Pike and Ayers (2013) report that there is no association between PND and mother child interaction, however there is a correlation between parental anxiety and poorer infant interaction. Additional work (Parfitt and Ayers, 2014) showed that those parents with mental health problems had a slower onset of positive feelings for their baby and stronger feelings of anger towards the infant. As mentioned previously, concerns for the emotional and behaviour impact on offspring have led to calls for improved levels of postnatal mental health support (Milford and Oates, 2009; Giallo et al., 2013).

Wider implications should also be considered in terms of gender. Olff et al. (2007) highlight the increased susceptibility of women to PTSD after a traumatic event, which may partially explain the large percentage of women in the current study with partial PTSD (48%). It is surprising therefore, that postnatal PTSD research has been slow to emerge; first reports of childbirth as a potential stressor were only made from the mid-1990s (Ballard, Stanley and Brockington, 1995). In comparison with for example military veteran PTSD literature, which has abounded since the 1980s (APA, 1980; Figley, 1978). In a triad of reports Lasiuk and Hegadoren (2006a, 2006b) and Hegadoran, Lasiuk and Coupland (2006) contest that historically research has focussed on precipitating traumatic events such as war or accidents and male responses to them. One could argue that in the past there has been a gender biased approach to PTSD literature. However, as previously discussed, women are at more risk of interpersonal trauma and also twice as likely as men to have PTSD after a traumatic

event (Olff et al., 2007; Kessler et al., 1995). They may also be more at risk for complex PTSD which has never been specifically recognised by the APA in their DSM PTSD criteria (Lasiuk and Hegadoran, 2006b). Hegadoran, Lasiuk, and Coupland (2006) called for more gender based research because the DSM IV-TR (2000) criteria available at the time ignored the complexity and diversity of women's responses to traumatic events. Carmassi et al. (2014) concur for research using the new DSM V (APA, 2013) criteria as they found that the new criteria were crucial for diagnosis in half the men but only a quarter of the women studied. Friedman (2013) argues that although complex PTSD is not specifically incorporated in the new criteria diagnostic elements have been integrated. Thus calls for more gender specific studies are merited.

I have previously discussed the potential effects on PTSD of increasing medicalisation of childbirth but I feel it is also important to highlight the issues as one of immediate public health concern because of the implications for the family unit, the effect on dyadic relationship (Ayers, Eagle and Waring, 2006) and bonding and attachment between mother and baby (Giallo et al., 2013; Atkinson et al., 2000). The issue is also of wider concern for midwifery practice. The qualitative results of this study show how much women valued communication and support during labour and that lack of effective midwifery support made them feel disempowered and helpless. Ford, Ayers and Bradley (2010) suggest that early postnatal support may facilitate recovery from initial post-traumatic stress symptoms, although it is also important to consider other aspects including the impact of negative social input as opposed to absence of social support and the effect this may have on symptoms. It is also relevant that in the current study I measured perception of social support rather than actual levels. Ford Ayers and Bradley (2010) also used a perception measure however their

tool included self-report on perception of practical, informational and emotional support whereas the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988) used in the current study focussed entirely on the emotional dimension of support provided by family, friends or partner. It is possible that differences in findings have occurred because practical and informational support and not just emotional support is beneficial for postnatal women. However, the study by Ford, Ayers and Bradley (2010) was limited by a much smaller sample size, which would have affected statistical strength and results could have been biased by the use of a measure for PTSD three weeks after the birth rather than four, thus potentially leading to an over-report of acute stress symptoms (Bryant, 2010) because the DSM IV (APA, 1994) criteria suggest that PTSD is only characterised as such if symptoms have persisted for a month or more.

Realistically, arguments for improvements to increase midwifery or health visitor support will potentially be met with financial barriers. However given that the recent government publication; 'No Health Without Public Health' (2011) suggests that intervening early not only improves mental health outcomes for young children but also produces a saving of £8,000 per child over a 25 year period. One could assume then, that there may be a policy appetite for prevention and early intervention if family approaches can improve mental health outcomes for children. Over a decade ago MacArthur et al. (2003) piloted a midwife led protocol where individual needs were assessed using a cohort of 2,000 postnatal women in the East Midlands and targeted care was designed based on results from symptom checklists. The authors argued for the redesign of postnatal care as a result of the findings. Recent reports though, have shown that the provision of support for women with chronic low-level

mental health problems is still patchy, with confusion over responsibility between primary care, mental health and maternity services (NHS 2012).

Several women in the current study suggested that they valued peer support that had been sourced via social media. Recent research has shown that social support may have a role in prevention of postnatal depression after childbirth (Negron et al., 2013). Since access to the internet is increasing (84% of households in the UK possessed internet access in 2104; Office for National Statistics (ONS), 2014) professionals could be signposting online therapies and social media support if they are unable to provide traditional postnatal support. Interesting new research adds to the evidence that use of 'Twitter™' or other social media can not only support those with postnatal mental ill health (O'Connor et al., 2014; Horgan, McCarthy and Sweeny, 2013) but even predict the likelihood of mental health problems (De Choudhury, Counts and Horvitz, 2013). Using social media in this way raises concerns regarding the ethical implications and in particular those surrounding confidentiality. However, in the same way as online shoppers are, for example, recommended books based on their previous purchases, perhaps in the future social media feeds could be used to signpost help for those at risk of postnatal mental health problems. Secure and anonymous portals are accessible already from organisations such as Pre and Postnatal Advice and Support (PANDAS) and mainstream online support organisations such as Netmums™, which have links to 'meet a mum' where individuals can access local peer support. Additionally support can be gained from closed Facebook™ pages and specific Twitter™ chats such as # PNDHour @ PNDand Me. Indeed, the pervasiveness of the internet in people's lives may mean it could be seen as a resource of first resort for women of childbearing age, especially since evidence shows that self-help, web



based and online communication e-therapy was as effective as traditional therapy especially for PTSD and panic disorders (Barak et al., 2008). Further research regarding the effective signposting and up-take of such support is recommended.

### **11.9 Writing Therapy**

One of the initial aims of the study was to conduct a feasibility study to determine the impact of writing therapy on PTSD in postnatal women and assess its efficacy as a possible intervention for women with PTSD. A review of secondary research showed that there was conflicting evidence that writing is a successful form of therapy for psychological morbidity, but few primary studies had investigated the effect of writing therapy on PTSD. Frattaroli (2006) showed that significant effect sizes were obtained if certain conditions were observed when conducting the writing. Other reviews were more circumspect; reporting that despite the ineffectiveness of the intervention recorded by outcome measure the intervention was often positively appraised by the participants (Mogk, 2006; Meads, Lyons and Carroll, 2003). Previously little research regarding the effect of writing therapy on postnatal PTSD has been conducted. Indeed only one small study was retrieved (DiBlasio and Ionio, 2002). The writing intervention was conducted two days after birth and was reported to reduce symptoms of PTSD. However caution should be observed when interpreting this as it is likely that only acute stress reactions were being measured so early after the birth not PTSD (Bryant, 2010).

In the current study no meaningful quantitative analysis of the impact writing therapy was possible as only seven of the 65 initially identified participants with PTSD responded to the invitation to write. The case study results show that it was valued by

one individual who chose to write and the increased use of cognition words over the three sessions concurs with the findings of Pennebaker (1993), who suggests this is a necessary part of the recovery process. These data were also triangulated with Becky's interview where she discussed her view that writing had helped her to organise her thoughts better. None-the-less the writing did not appear to affect the level of PTSD measured at follow-up. This could be explained by timing as the follow up questionnaire may have been administered too soon for benefits to be seen. Of course this finding is not generalisable anyway due to the small sample size.

Timing may also be pertinent in another respect. When it became apparent that most women were not writing, purposive samples of those who had been identified with PTSD but had not written were interviewed in order to determine what affected their decision not to write. The women reported that meeting the demands of their babies postnatally meant that when the invitation to write was made they were unable to access it owing to time constraints. This finding accords with that of Bakermans -Kranenberg, Van Ijzendoorn and Juffer (2005), who suggested that for this reason interventions were unlikely to be taken up before the baby was six months old. However when formulating the therapy this drawback had been considered by making the therapy available via the internet. I have explored possible explanations for this in the qualitative chapter. Since we are increasingly dependent upon the internet for support in many aspects of our lives it originally seemed that using the internet to access therapy would be attractive to a population whose ability to access the wider world may have been compromised by the birth of their baby. But it is important to consider the debilitating effect of PTSD symptoms on their ability to take up an intervention as well as the increased time demands of a new baby.

It is possible that the effect of the avoidance symptoms of PTSD could have disinclined the women to write about their trauma; if the women were highly avoidant then they may not have felt happy recounting their experience. Quantitative results on the whole do not support this idea though, as the predominant symptom clusters were found to be intrusion and arousal. It was interesting to explore why writing did not appeal to this group of women through the semi-structured interviews but also important to recognise the limitations of the qualitative analysis in drawing transferable conclusions.

As previously discussed, the vast majority of the women in the study chose not to write and some of those interviewed accounted for this by their busyness. However it is important to consider societal ideas around childbirth which may also have impacted upon their behaviour. Childbirth appears to be a unique initiating event for PTSD in that it is largely considered positively in society. Despite anecdotal 'horror' stories it is not regarded as a disaster in the same way as war, natural disasters, transport accidents or abuse, in large part due to the positive associations with a new baby. Therefore it is not usually associated with the idea of universal or personal sympathy unless accompanied by severe physical morbidity or mortality. Indeed in the West we have come to believe that any physical risks during the birth process can be ameliorated by increased medicalisation (Liamputtong, 2007). Birth is positioned culturally as a positive event in a woman's life. The dilemma facing those with PTSD as a result of birth is explored in more detail in the qualitative chapter; the central contention being that it is difficult for women to write about a traumatic birth because this conflicts so starkly with the idealised nature of birth in Western society. It is possible that the women subsequently felt guilt or self-blame when comparing their

experiences and this then fuelled their reluctance to write about their birth. Malacrida and Boulton (2014) argue that this is essentially a feminist issue because women still feel responsible for the outcome of their birth, despite being in a highly medicalised environment which effectively renders them powerless.

Another consideration is that writing might be useful if participants felt it was part of a therapeutic relationship whereby a response would follow. This could be equated to the idea that blogs are responded to by an accepting community when posted. However the current study was designed such that writing was not responded to by the researcher. Although this aspect was not specifically mentioned by participants, Frattoroli (2006) conducted a meta-analysis of written disclosure and found that larger effect sizes were obtained when participants thought their writing would not be viewed by anyone and this had influenced the current design. This does not address the disinclination of women to write at all. However, the women who were interviewed talked about the usefulness of blogs, Facebook™ and Netmums™. It is possible that the expectation of support from those who also had experienced trauma was perceived to be more beneficial than just performing the writing. Thus there may be a role for less formalised peer to peer support for such women. Future research should focus on this important area as already discussed in the support section above.

### **11.10 Evaluation of Methods**

I have used a sequential approach and by incorporating quantitative, interview and case study approaches on the same topic I was able to gain both a broad and detailed insight into postnatal PTSD. Thus the 'holy grail' of triangulation of findings

was satisfactorily achieved. Because the quantitative study involved analysis of a large amount of questionnaire data from over 200 participants I was able to obtain figures for the prevalence of PTSD and its co-morbidity with PND. Alongside this, by performing hierarchical regression and conceptualising the possible predictors in four groups it was possible to propose that personality factors such as alexithymia and affects were the strongest predictors of PTSD. Additionally, a mediational model for the effect of affects and alexithymia on general psychological health via perception of labour was proposed. The case study and qualitative study were able to provide more detail about the lived experience of PTSD post birth. In particular the importance of pre-existing vulnerabilities, the feelings of guilt and shame and the complicating factors was explored.

By using general and psychological health (as measured by GHQ-28 Goldberg and Hillier, 1979) as a dependent variable in the quantitative part of the study a wider range of postnatal morbidity was found. The instrument consisted of some questions around the hyper-arousal subscale for PTSD which means it may be capable of identifying a wider range of postnatal psychological illness than just post natal depression. It could be argued that the questionnaire is longer but it can be self-administered and would be a way of identifying other psychological illness in this population. Triangulation can be posited between quantitative and qualitative findings in the current study in terms of the complicating factors reported in the interviews with women, if one allows that complicating factors could have been reported as additional health issues in response to the GHQ-28 questionnaire. Thus GHQ-28 results would have potentially identified the 'complicating factors' reported at interview if they were health related. Additionally recovery from birth could be

exacerbated by concomitant health issues and in many women the overall picture may be complex. Also it is worth considering that childbirth may render some women both mentally and physically low but that this could be normal. The interrelationship of physical and mental health in this population needs further exploration although past research has shown that those with PTSD are likely to also have physical health problems (Mowery, 2011).

## **11.11 Strengths and limitations of the study**

### **11.11.1 Reflexivity**

The reflexive approach was discussed in depth in chapter seven. Regarding my interaction with the data as a researcher, an important strength was the use of bracketing interviews to fully explore my own perspective and motivation before and after interview data collection. The way in which this impacted my approach is documented in chapter seven. Doyle (2013, p. 251) suggests that reflexivity requires a 'thinking state of mind' which has I hope underpinned my epistemology. I feel that by participating in bracketing I was able to respond appropriately to participants and data. In practice this impacted at the recruitment stage where a sensitive and flexible approach was necessary. During interview this required an awareness of interpersonal perceptions of power and an on-going re-evaluation of my impact. Finally during analysis, reflection on my own biases regarding reporting has continued to influence my writing. Additionally a flexible approach was required in order to re-focus the study in the light of the feasibility study findings.

### **11.11.2 Recruitment process**

A strength of this study was that over a period of 24 months, all eligible women giving birth in a busy maternity unit were approached personally for inclusion in the study. This resulted in a high participant rate and data from over 200 women. It is acknowledged that there was selection bias as the study excluded non- English speakers, however the study took place in a large town in the South West of England where non-English speaking residents comprise only around 4% of the population (Office for National Statistics, 2014). Illiterate women were also excluded, as were those without internet access. However, it is important to consider that young people (of childbearing age) may be more likely to regard access to the internet as important regardless of their socioeconomic status. The ONS reported that in 2014 84% of households in the UK had internet access and the number continues to rise (Office for National Statistics, 2014). Exclusion of illiterate women and non- English speakers was necessary, as expressive writing requires participants to be able to write effectively. In a bigger study with more funding it is likely that both these problems could have been addressed. Firstly a scribe could have been utilised and secondly either an interpreter or translation software would have been useful. However one would also need to consider the initial approach to a participant and an interpreter would have been necessary even for the initial completion of consent forms and answering questions. It was possible whilst recruiting to identify those without the internet (about 7%), however it was less easy to identify those with low or non-existent literacy as they would be likely to decline to participate without necessarily giving a reason. Assuming that non- literacy would equate with no qualifications the ONS census (2012) showed that only 7.5% of the population in the South West had no qualifications (the lowest

level in the country) so it is likely that only a relatively small percentage of possible participants were excluded from the study for this reason. Dugdale and Clarke quoted in the National Literacy Trust review (2011) showed that there is a high correlation between poor literacy levels and lower socio-economic status, thus it is possible that I was unintentionally biasing the study against the inclusion of lower social classes (National Literacy Trust 2011). There is also some evidence, that young, poor, unmarried and minority culture individuals may be more likely to experience trauma (Smith, 2007) and that socioeconomic status contributes to PTSD severity (Rauch et al., 2013) so if they also had an external locus of control this could contribute to the development of post-traumatic stress disorder. This could mean that those excluded from the study by low literacy were also those more likely to be affected by PTSD; a less than ideal conclusion. Additionally as Soet, Brack and Dilorio (2003) have shown that past PTSD (in particular as a result of sexual trauma) is also a predictor of post natal PTSD. I would therefore, also have been potentially excluding a cohort with a higher likelihood of experiencing post natal PTSD because those who were in a lower social demographic were more likely to have experienced abuse which could result in a past experience of PTSD. However, although potential biases were created by exclusion of those with low literacy levels from the study, as the proportion of potential participants affected was so low, (my results show that only 19% declined to take part when initially approached and lack of literacy would not have been the only reason potential participants chose to decline) it can be argued that this would not have a significant impact on the validity of the study.



### **11.11.3 Timing of interventions**

In terms of baseline and follow up, one month was chosen for the baseline PTSD measurement, other authors such as Di Blasio and Ionio (2002) may have been measuring acute stress symptoms. However there is some debate in the literature over follow up times and this is an area which would benefit from further research. Given that Bakermans- Kranenburg, Van Ijzendoorn, and Juffer (2005) found that interventions are rarely taken up by new mothers before their infant reaches six months of age, alternative support may be necessary.

### **11.11.4 Writing therapy**

I was able to show that writing therapy was not an effective therapeutic option in this population. This however was not due to ineffectiveness of the therapy once accessed, but to poor uptake. Thus effectiveness cannot be commented upon due to small sample size. However the study confirms the work of Bakermans -Kranenberg, Van Ijzendoorn and Juffer (2005) who found that interventions are hard to implement with postnatal women before their child reaches six months of age because of the high demands of caring for a baby.

## **11.12 Summary of Contribution to Body of Knowledge**

### **11.12.1 Theory**

In the current study I showed that 15.6% of women had full PTSD and 48.3% showed symptoms of partial PTSD which has not previously been reported for this group of women. Those with PTSD did not access an internet based writing therapy. Quantitative results showed that the main symptom clusters for PTSD in this population were re-experiencing and hyper-arousal. Avoidance was not one of the

main symptom clusters in this population, had it been it may have explained why women did not write about the birth. Qualitative analysis has shown that interventions are hard to access even when based in the home partly due to care giving demands. Societal expectations surrounding the birth experience may also contribute to feelings such as guilt and shame which impact upon the ability to write about the birth experience.

In the current study the following independent variables were found to correlate with PTSD and general and psychological health; past trauma, maternal confidence, self-efficacy, baby not sleeping, post natal depression, poor birth experience, support and attachment. Hierarchical regression for four blocks of predictors (demographic and child care variables, past trauma, personality variables and social support and attachment) showed that personality variables were the strongest predictor for reduced psychological health and PTSD. The role of negative affect and alexithymia in this population has been discussed.

Quantitative results showed a meditational relationship between affects, alexithymia and reduced physical and psychological health via the pain component of the birth experience. The way in which pain is conceptualised by postnatal women may be important especially for those with alexithymia. This finding in a population of postnatal women has not been previously reported.

### **11.12.2 Mapping of findings from all phases of the study**

Mapping of the main interactions was presented in chapters eight, nine and ten. Figure 11.1 was derived from the findings in each phase of the study and is presented below. Figure 11.1 has firstly drawn on the in depth case study findings

where the key emergent themes related to the individual's perceptions about herself, her beliefs and her personality (selfhood) and how she related to key people around her during the birth. Triangulation was demonstrated between expressive writing, interview and questionnaire findings showing a consistent relationship between high self-efficacy, expectation and self-blame. The findings from the qualitative phase are also integrated as they confirmed the complex interaction between personality and past experience, which affected an individual's sense of control over their birth experience and its psychological sequelae. However interviews also revealed the impact of additional complicating factors on the individual's experience of PTSD and confirmed the important role of supportive relationships both during labour and postnatally. The quantitative findings highlighted the meditational effect of the pain component of the birth experience for affects and alexithymia on psychological health. In this phase the complicating external factors identified that impacted upon PTSD included demographic variables such as coping with the baby's demands or planning the pregnancy. I have chosen to conceptualise this in terms of how certain factors impact upon selfhood resulting in outcomes such as PTSD, reduced psychological health or the inability to write about their experiences postnatally. Blue represents findings from qualitative phases. Red indicates findings from the quantitative phase. Black indicates findings from all phases.

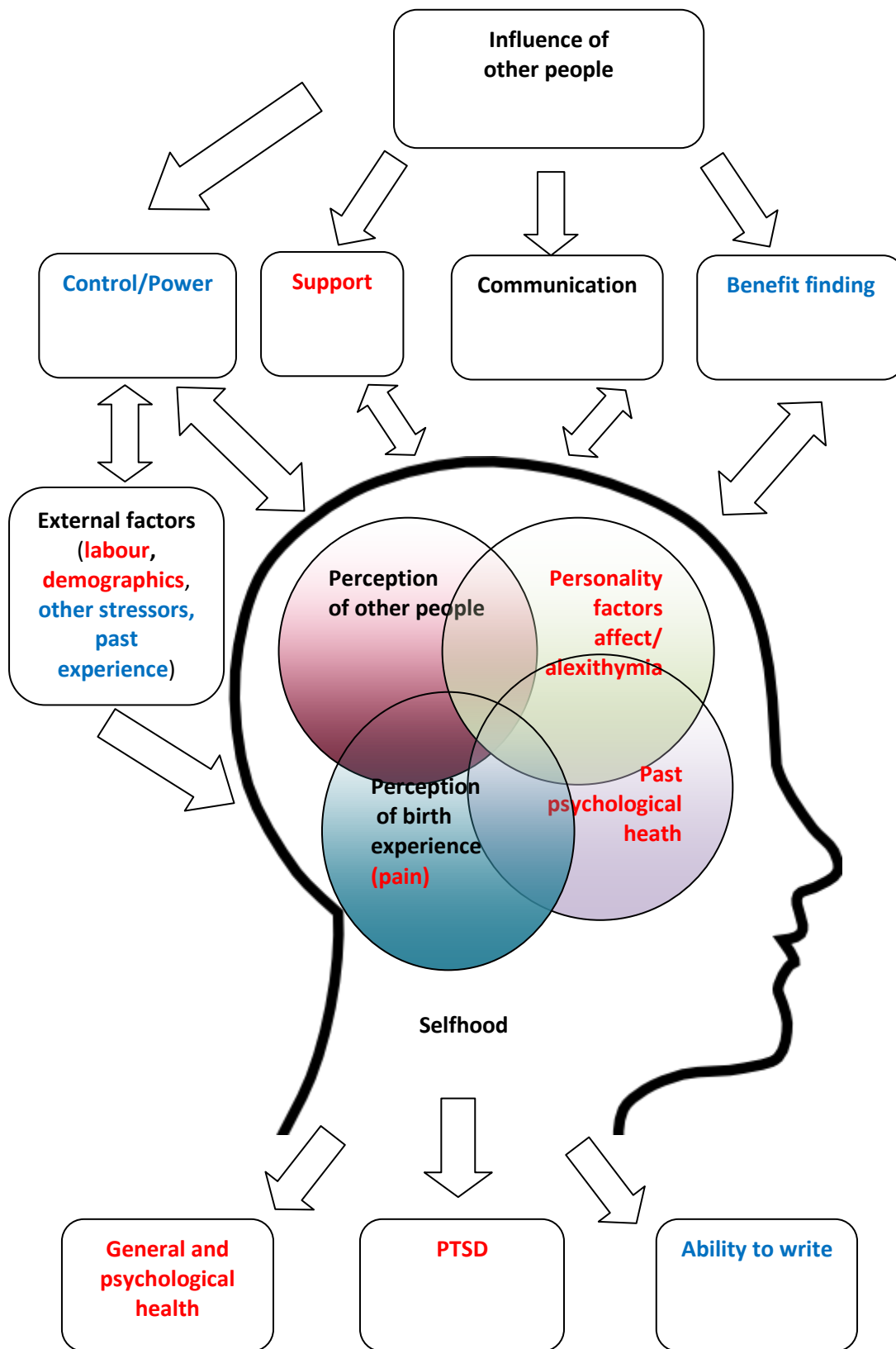


Figure 11.1 Mapping of main themes from all phases of the study

### **11.12.3 Methods**

An epistemological approach which incorporates flexibility is vital in research. Such an approach is facilitated by reflection and reflexivity. The current study also thoroughly explored the bracketing technique in a way that has not previously been reported. The importance of this technique for researchers' interaction with both their research participants and data has been emphasised. By taking a conscientious rather than a cursory approach to bracketing and by embedding the ethos of reflexivity within the research process unique insights into the relationship between women with PTSD, their needs and the role of health professionals have been identified. I would recommend the incorporation of bracketing, in particular for studies involving interviews where participants share sensitive material, because the technique not only improves 'objectivity' but also increases an individual researcher's reflexive abilities.

The participants recruited to the study were 'real' postnatal women and not students. The research was underpinned by a pragmatic desire to improve mental health outcomes for postnatal women.

The range of measures used in the current study has not been previously used with a population of postnatal women.

### **11.12.4 Practice**

As a result of conducting this study a relatively high level of PTSD has been identified in this postnatal population. Therefore I would recommend the addition of a PTSD screening measure alongside PND at the six week postnatal check. It is possible that the use of a measure such as GHQ-28 would detect a wider range of psychological ill health.

The current study highlights the importance of personality vulnerabilities such as alexithymia in the development of postnatal PTSD. It is possible that by screening for alexithymia during the antenatal period those vulnerable individuals can be identified and provided with targeted support during labour to reduce their experience of pain. Along with previous researchers, I would suggest that the current research adds to that emphasising the crucial importance of midwifery communication and empathy with women perinatally but particularly during labour.

Midwives and antenatal educators should explore preconceptions about labour pain with women in order to promote a non-pathologising culture for childbirth.

The findings in the current study contribute to previous research suggesting that access to labour notes should be facilitated postnatally.

For some women childbirth is just one of many stressors in their lives. Additional complicating factors could contribute to PTSD. Health visitor and postnatal support should be targeted at those with additionally complex lives.

The women interviewed appraised support highly. The importance of postnatal support has been stressed and the implication for public health in its absence has been discussed. It is suggested that those involved in maternity services should actively promote certain social media as avenues of peer support for vulnerable postnatal women.

In summary, I would recommend the following practical steps to improve care.

- Postnatal screening six weeks after the birth to incorporate a wider range of psychological morbidity (possibly using the GHQ-28)
- Antenatal screening for alexithymia

- Increased levels of empathetic midwifery support perinatally to include discussion about birth expectations and adequate signposting to birth afterthoughts services and useful sources of social media support.
- Targeted antenatal and postnatal support for those with complex lives to include referral, for those with postnatal PTSD, to therapies where patients can explore their emotions.

#### **11.12.5 Research recommendations**

As a result of conducting this study I would recommend the following future studies:

1. A study designed to obtain more data from postnatal women to enable a more detailed exploration of the complex inter-relationship identified between the pain component of the birth experience, affects, alexithymia and the impact of birth expectation in postnatal women with PTSD.
2. Further comparative studies assessing any differences in the PTSD experienced by postnatal women and PTSD with an alternative aetiology in both men and women, especially regarding emotional responses.
3. A longitudinal study investigating the importance of concomitant stressful events as predictors of postnatal PTSD on a peri-natal population of women.
4. A pilot study should examine the use of a broader screening measure than the Edinburgh Postnatal Depression Scale (EPDS) used at the six week postnatal check in order to detect symptoms of PTSD in addition to PND symptoms.

5. A further pilot study using writing therapy with postnatal women experiencing PTSD where the intervention is offered when their baby is over 6 months of age. The study should also explore the most suitable follow up time.
6. A qualitative study should investigate the interaction of the use of artificial oxytocin in labour with women's beliefs about their levels of control and support in labour
7. A study designed to investigate the number of women with postnatal PTSD using social media as a means of support, the efficacy of midwifery signposting and an exploration of women's and midwives' views of the usefulness of social media as a suitable form of support.
8. Development of an appropriate alexithymia screening tool for use with antenatal women.
9. A study designed to assess the economic benefit of the provision of screening, early detection and interventions for women with postnatal PTSD.

### **11.13 Conclusion**

In this study I have used a range of methods to determine the relationship between a variety of predictors and PTSD and psychological health and to explore women's experience of postnatal PTSD. I have demonstrated that the pain component of the birth experience mediates the relationship between affects, alexithymia and psychological health. Indicating that how women think about the pain of the birth experience postnatally may affect their vulnerability to PTSD. Also it is possible that



PTSD in postnatal women may emerge as a consequence of other complicating factors present at or after the birth in addition to the birth experience. Women valued the support of their mothers and stressed the importance of a good relationship with midwives especially during labour. Interview findings indicate that social media could be emerging as an additional means of support for many women. The main recommendations include screening for alexithymic traits in pregnancy in order to provide targeted support and postnatal screening at the six week postnatal check to include a wider range of psychological morbidity than just PND. At this important period in a woman's life and the life of her child, every effort should be made to ensure that PTSD is prevented detected and treated.

My research journey has not only produced information about key predictors of PTSD in postnatal women and insight into women's views about their postnatal needs, it has also impacted upon me as a researcher and an individual. In chapter seven I sought to justify the importance of a reflexive underpinning in the research process and this has helped me reflect on how the process has changed me. However in conclusion it is salient to briefly summarise some of the key things which have shaped me as a researcher during this five year journey.

I was initially driven to investigate the topic by a passionate desire to improve women's postnatal experience together with an academic interest in postnatal mental health. To some extent my original desire to produce an easily accessible treatment for postnatal women with PTSD now seems naive, but the research journey has produced far more than the knowledge that postnatal women do not access writing therapy.

I have gained personally by embracing the idea of a participatory approach where women are viewed as people with complex individual lives rather than merely subjects of research. By meeting participants personally at the recruitment and interview stage and working hard to develop rapport this was invaluable to me later, when absorbed in analysis, as a reminder of why I had originally started the journey.

By exploring the predictors of postnatal PTSD quantitatively I have developed organisational skills and learned how apply statistics in order to understand patterns in the data; I have also learned to overcome my initial reservations about working with quantitative results. By exploring women's experiences of PTSD I have learned persistence and patience to organise interviews, honed observational skills and learned how to apply narrative analysis. I have also continued to develop my time management, academic writing and presentation of my work to a variety of audiences.

I feel I have been very aware that the process has shaped me as a person because by being open to findings which were unpredictable at the start my pre-conceptions have been challenged and I have sought to embrace the challenges. By attempting to be reflective and reflexive at all stages of the research process I was able to move the research forward in response to the initial findings. However in attempting to learn from the challenges I have developed as a researcher and also as a person.

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## Appendices

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## Appendix i. Comparison of Writing Therapies

| Study                    | Design  | Sample      | Assessment  | Results  |
|--------------------------|---|-------------|---|--|
| Ames (Ames et al., 2005) | Brief office intervention or EW and brief office intervention   | 60 smokers  | 4, 12 and 24 weeks post test  | The expressive writing adjunct was not effective in stopping smoking   |
| Ames (SC et al., 2007)   | Random assignment to a brief office intervention, or expressive writing and office intervention. Participants wrote for 2 consecutive days before and 3 after the quit date | 196 smokers | At week 8 biochemically confirmed 7 day point abstinence was apparent for the expressive writing group. | Expressive writing may be useful for smoking cessation treatment   |
| (Baikie, 2008)           | Randomised to 20mins per week for 4 weeks. Expressive or neutral writing  | 88 students | 1 month follow up   | Expressive writing was beneficial for those who scored higher on alexithymia or splitting but not on repressive coping |
| Barclay (2009)           | Wrote on 4 consecutive days about either emotions, thoughts, emotions and thoughts on an emotional topic or a neutral topic   | 100 workers | Post intervention   | Participants in the emotions and thoughts condition reported higher psychological well being                           |

|  |  |  |   |   |
|--|--|--|---|---|
| Bernard (Bernard, Jackson & Jones, 2006) | Either wrote about the most stressful aspects of their illness or neutral topics. They wrote for 15mins on 3 occasions | 22 patients with psychosis                     | Completed baseline measures of traumatic symptoms, recovery style, insight, anxiety, and depression. The same measures were completed at 5 week follow up | Those who wrote about their psychotic experiences showed less overall severity and avoidance of traumatic symptoms. |
| Brewin (Brewin & H, 1999)                | Writing longhand compared to typing with a stressful and neutral topic   | 80 undergrads                                  |   | Writing longhand led to more self-rated disclosure  |
| Broderick (Broderick et al., 2004)       | 2 active treatment writing groups 1 inactive writing group 1 attention control group. Video format at home             | Rheumatoid arthritis patients                  |   | No effect using standard writing instructions equivocal results using modified instructions                         |
| Brown (Brown & Heimberg, 2001)           | One group wrote about factual info only and the other wrote about factual and emotional                                | 85 undergrad women                             | Pre-treatment and 1 month follow up   | Greater detail in writing showed decreased dysphoria  |
| Bruera (Bruera et al., 2008)             | Randomly assigned to expressive writing or neutral writing over 2 weeks  | 24 patients with cancer having palliative care | Anxiety level compared at start, and after each session   | Not significant, methodology needs changing   |

|                                   |   |   |  |  |
|-----------------------------------|---|---|--|--|
| Bugg (Bugg et al., 2009)          | Participants received an information booklet 1 month post injury. 5-6 weeks post injury participants wrote about their trauma for 20mins over 3 sessions                                  | 67 patients attending AE with traumatic injury at risk of developing PTSD | Psychological assessments were at 1, 3 and 6 months post injury. | There were improvements of anxiety and depression and PTSD over time they were not related to the intervention. Although participants reported it to be useful |
| Chen (Chen, 2005)                 | Random assignment to either a conventional trauma writing or a religious trauma writing condition   | 177 college students  |  | Conventional writing was more effective in reducing PTSD symptoms  |
| Chung (Chung & Pennebaker, 2008)  | Random assignment 15mins separated by a 10 min break or 15min separated by a 35 min break or 15 mins each over 3 days. Participants wrote about their feelings or a non-emotional subject | 106 college students  | 9 month follow up.   | All experimental conditions produced fewer symptom reports at follow up. A 1 hour intervention produced the same results as a 3 day one.                       |
| Danoff (Danoff-Burg et al., 2006) | 4 sessions 3 groups one wrote on benefit finding, one expressive writing, one neutral topic   | 75 patients with lupus or rheumatoid arthritis                            | 1 and 3 month follow up  | Fatigue was lowered in the BF and EW groups  |
| De Moor (de Moor et al., 2002)    | Random assignment to expressive writing or neutral writing group  | 42 patients with metastatic renal cell carcinoma                          |  | Reported benefits for the expressive writing group were better quality sleep   |

|   |   |  |  |  |
|---|---|--|--|--|
| De Moor (de Moor et al., 2008)                | 20 mins four times over 7 days  | 49 breast cancer patients                                  | Assessment 3 days before and 2 days after surgery  | No changes in distress, sleep disturbance or pain  |
| Deters (Deters & Range, 2003)                 | 15 mins on 4 days over 2 weeks, wrote either about a trauma or neutral topic                            | 57 undergrads  | Pre, Initial and 6 week follow up, assessed on PTSD impact scale, suicide ideas, dissociation and depression | Initially PTSD sufferers scored worse but better by follow up  |
| Fernandez (Fernández & Páez, 2008)            | Random assignment to expressive writing or control writing for only one day                             | 607 survivors of the Madrid terrorist attack               | 2 month follow up  | No effects were found on positive affect, but narratives at follow up predicted low emotional activation |
| Frattaroli (Frattaroli, 2006)                 |   |  |  | Meta-analysis of experimental disclosure showing it to be effective                                      |
| Gortner (Gortner, Rude & Pennebaker, 2006)    | 3 consecutive days using expressive writing or a control  | Depression vulnerable students                             | 6 month follow up  | Lower depressive symptoms  |
| Graf (Graf, Gaudiano & Geller, 2008)          | Wrote on 3 consecutive days. Randomly assigned to emotional disclosure writing or neutral writing       | Outpatient psychotherapy clients                           |  | Clients in written emotional disclosure group showed reductions in anxiety and depressive symptoms       |
| Graybeal (Anna, D & W, 2002)                  | 20mins on 3 days on emotional and unemotional topic   | 52 undergrads  |  | Story making did not correlate with health outcome   |
| Hamilton – West (Hamilton-West & Quine, 2007) | Random assignment to either writing about stressful or neutral topics for 20mins on 3 consecutive days. | 45 male and 23 female patients with ankylosing spondylitis | Three month follow up  | Expressive writing participants showed better functional status  |



|                                |  |   |   |  |
|--------------------------------|--|---|---|--|
| Hannay (David & Gillie, 1999)  | Therapeutic writing with a simple explanatory leaflet over 2 months  | 20 depressed or anxious patients from a GP caseload | GHQ scores obtained before and after the intervention   | Scores improved by 3 on average  |
| Harris (Harris, 2006)          | Meta- analysis of 30 trials  | 2,294 participants                                  |   | Writing about stressful experiences reduces health care use in healthy samples   |
| Kenardy (Justin & A, 2006)     | Subjects either received an explanations about the treatment or none prior to taking part in therapeutic writing                                       | 161 psychology students having experienced trauma   | 2 month follow up   | Explanation group had a greater reduction on Impact of Events Scale  |
| Kloss (Kloss & Lisman, 2002)   | Random assignment to a trauma disclosure writing group, a positive emotion group, a neutral writing group. They wrote for 20mins on 3 consecutive days | 129 male and female students                        | Baseline and 9 week follow up questionnaires assessing psychological and physical functioning           | Results not in line with Pennebaker and Beall 1986, no differences between groups  |
| Koopman (Koopman et al., 2005) | Randomly assigned to 4 sessions expressive writing of traumatic event or neutral topic.  | 47 women  | Baseline and 4 month follow up  | Not significant unless women already depressed   |
| Kovac (Kovac & Range, 2000)    | Participants wrote about the death of their loved one or trivial topics x4 over 2 weeks  | 40 students experiencing grief                      | Completed pre and post-test measures of grief and self-reported health visits and a t 6 weeks follow up | Those in the expressive emotional group reported less grief associated with suicide than those in the trivial condition. |

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| Laccetti (Laccetti, 2007)                    | Expressive writing on 4 consecutive days  | 68 women with metastatic breast cancer | Quality of life measurement at baseline and 3 month follow up   | A positive relationship between affective language in disclosure and QOL was found |
| Lange (Lange et al., 2000)                   | 45 mins x10 over 5 weeks over the internet  | 20 undergrads with PTSD and grief      | Pre- treatment, post treatment and 6 week follow up   | Improvement in PTSD symptoms and pathological grief and psychological function     |
| Lange (Lange et al., 2001)                   | Random assignment to internet driven treatment or waiting list control  | 101 patients with PTSD and grief       |   | Depression and avoidance symptoms were decreased in the intervention group         |
| Lepore (Lepore, 1997)                        | Participant either wrote about their deepest thoughts and feelings about an upcoming exam or wrote about a trivial topic. | students                               | The expressive writing group showed a decline in depressive symptoms from 1 month to 3 days before the exam | Expressive writing moderated the impact of intrusive thoughts                      |
| Mackenzie (Mackenzie et al., 2007)           | 20mins four times over 2 weeks, random assignment to expressive writing or time management or history writing groups      | 40 family carers of older adults       | Self-report measures of caregiver burden prior to treatment, immediately afterwards and 1 month follow up   | Only the time management group had mental and physical health improvements.        |
| McGuire (McGuire, Greenberg & Gevirtz, 2005) | EW and control  | 38 participants                        | Baseline 1 and 4 month follow up  | EW protectively buffers heart rate variability (blood pressures were measured)     |

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|---|--|--|---|---|
| Morgan (Morgan et al., 2008)                  | 20 min expressive writing whilst waiting for an appointment in a cancer clinic                                       | 71 adult leukaemia and lymphoma patients | Baseline assessment, post-writing assessment and 3 week follow up | Reports of changes in thoughts about illness at post-writing were associated with better physical quality of life at follow up  |
| Paez (Páez, Velasco & González, 1999)         | Random assignment. 20 min on 3 days or 3 min on 1 day about either disclosed, undisclosed traumas or a neutral topic | Psychology students                      |   | Writing about Previously undisclosed events showed improved affect scores. Brief writing of undisclosed events showed more negative appraisal. Intensive writing about trauma had positive effects on affect. |
| Pantchenko (Pantchenko, Lawson & Joyce, 2003) | Participants wrote, drew, or wrote and drew about a recalled negative experience or neutral topics                   | 100 students                             |   | Writing and drawing and writing group reported increased psychological but not psychophysical well being  |
| Patterson (Patterson & Singer, 2007)          | Participants self-disclosed a traumatic or trivial topic for 15min on 3 consecutive days                             | 40 female college students               | 1 month follow up   | Those given a prior expectation that they would benefit had decreased interpersonal sensitivity and interpersonal alienation.   |
| Pennebaker (W & D, 1999)                      | 15mins over 3 days   |  |   | Those using high numbers of positive emotion words do better and increase their use of cognitive words  |

|                                    |   |                               |  |   |
|------------------------------------|---|-------------------------------|--|---|
| Richards (Richards et al., 2000)   | Random assignment to a trauma writing condition, a trivial writing group or a no writing group. They wrote for 20 min a day for 3 consecutive days                | 98 psychiatric prison inmates |  | Those in the trauma condition reported more physical symptoms after the intervention                  |
| Rivkin (Rivkin et al., 2006)       | Either wrote about thoughts and feelings or a neutral topic   | 79 HIV positive women         | 2 month and 6 month follow up  | Those who included insight causation and social words had better immune function afterwards           |
| Scholtz (Scholtz, 2003)            | Random assignment to either self-disclosure writing, self-regulation writing, trivia writing or no writing. They wrote for one session on four consecutive weeks. | 161 students                  | Completed a demographic questionnaire and Pagana's clinical stress questionnaire | The self-regulation writing group had a significant increase in benefit scores on the threat subscale |
| Schoutrop (Schoutrop et al., 2002) | 45 mins x5 over 2 weeks wrote about negative events, waiting list control   | 26                            | Pre-treatment, post treatment and 6 week follow up                               | Less intrusions and avoidance behaviour in test group   |

|                                     |  |  |  |  |
|-------------------------------------|--|--|--|--|
| Sheffield (Sheffield et al., 2002)  | Home based study, emotional expression group were asked to write about an undisclosed personal event, controls were asked to write about a superficial topic, all wrote for 3 consecutive days | 47 men and 99 women                                | Questionnaires were completed at 3, 7 and 30 weeks post intervention | The emotional expression group experienced and increase in physical symptoms and number of days off due to illness at 3 weeks but less anxiety and insomnia at 30 weeks. |
| Sloan (Sloan et al., 2007)          | Random assignment to 3 writing conditions: emotional expression, insight and cognitive assimilation or a control   | 82 traumatised college students with PTSD symptoms | 1 month follow up  | Those in the emotional expression group reported improvement in psychological and physical health  |
| Sloan (Sloan et al., 2008)          | Random assignment to expressive writing or a control.  | 69 college students                                | Depression scores were assessed at 2, 4 and 6 month follow up.       | Those in the expressive writing group with greater brooding scores reported fewer depressive symptoms  |
| Sloan (Sloan, Marx & Epstein, 2005) | 3 sessions Same traumatic experience 3x or different experiences each time or non- traumatic experiences   | College students                                   |  | Symptoms reduced if wrote about same traumatic experience  |

|   |   |  |   |   |
|---|---|--|---|---|
| Smyth (Smyth, Hockemeyer & Tulloch, 2008)             | Random assignment to expressive writing group about their traumatic experience or a group writing about time management (control) | 25 volunteers with PTSD                                  | Baseline and 3 month follow up measurement of PTSD severity   | No changes in PTSD diagnosis or symptoms were found but the expressive writing group improved in mood and post traumatic growth ratings.                                |
| Smyth (Smyth et al., 1999)                            | Random assignment to either write about the most stressful event of their lives or a neutral topic                                | 61 patients with asthma and 51 with rheumatoid arthritis | Assessments were made at baseline 2 weeks 2 and 4 months. Asthma patients were tested by spirometry and RA patients by a rheumatologist | At 4 months there was improvement in lung function in the asthma group, and improvements in overall disease activity in the RA group the control group showed no change |
| Smyth (Smyth et al., 2002)                            | Random assignment to emotional writing group or neutral writing, or no writing control  | 83 survivors of natural disaster                         | 3 month follow up   | In the experimental group disaster related intrusions were unrelated to both negative affect and physical symptoms  |
| Soliday (Soliday, Garofalo & Rogers, 2004)            | Random assignment to write about an emotional or neutral topic for 3 consecutive days   | 106 students   | Somatic symptoms, medical visits, distress and psychological functioning were measured at baseline, post-intervention 2 and 6 weeks.    | In the emotional writing group optimism, negative affect and positive affect words scores all increased   |
| Van Emmerik (Van Emmerik, Kamphuis & Emmelkamp, 2008) | 90 mins for 10 sessions   | 125 patients with PTSD                                   | Post-test and follow up   | Lower levels of intrusive symptoms compared well to CBT therapy   |

|                        |  |                                    |                  |  |
|------------------------|--|------------------------------------|------------------|--|
| Wong (Joel & B, 2009,) | 20 mins for 3 days test wrote about emotional topics control wrote about neutral topic | 158 male students random selection | 4 week follow up | Test group had less psychological distress |
|------------------------|--|------------------------------------|------------------|--|

## **Appendix ii. Power Calculations**

Power calculations were carried out in order to firstly ascertain the number of participants required in order to calculate the relationship between all the variables in the measures used and the therapeutic outcome with a power of 90%. The variables would include personality type, presence of PND, relationship style, self-efficacy, positive and negative affects, maternal confidence, general health, perception of birth, social support and dyadic adjustment.

Using the G Power computer programme a chi squared goodness of fit programme was used to calculate the initial sample size required in order for a power of 90% to hold true. The effect size used was 0.23 as Smyth (1998) reports an effect size of 0.23 for exposure therapy on PTSD patients. The alpha value was assumed to be 0.05. [ $F$  (degree of freedom) = 5,  $\Lambda$  = 16.5048] and the sample size required was found to be 312.


Soet et al. (2003) report that 34% of their sample of postnatal women experienced trauma symptoms. Thus in order to recruit enough participants who have full or partial PTSD I will have to recruit approximately 1,000 women initially to the study. The local hospital where I will be recruiting participants has 2900 births per year. Although 1,000 seems a large sample I intend to recruit over a two year period and potentially 5,800 women will have given birth during that time. This equates to a recruitment level of 10 women per week. I would assume at least a 50% drop out rate so will actually need to obtain consent from 20 women per week. Assuming that I visit the postnatal ward several times a week this would be a realistic expectation.



Secondly in order to calculate the number of participants required in order to determine whether writing therapy is effective in treating postnatal women with PTSD and whether one type of writing is better than another an ANOVA calculation was performed. It was carried out with repeated measures and within and between interactions. The same effect size and alpha values were used as in the previous calculation and a power of 90% was assumed. Three groups were included (writing therapy, writing therapy with meaning and a control group) and three points of assessment (pre- test, post-test and follow up). The sample size required was found to be 45 per group.

Considering that 312 women will already have been recruited in order to obtain data for the first research question there will be more than enough women to obtain robust data for the second research question.

## Appendix iii. Initial Ethics Approval Letter

  
**National Research Ethics Service**  
South West 1 REC  
South West REC Centre  
Level 3  
Block B  
Whitefriars  
Lewins Mead  
Bristol  
BS1 2NT

Telephone: 0117 342 1330  
Facsimile: 0117 342 0445  
Email: [Uhh-tr.SouthWest1@nhs.net](mailto:Uhh-tr.SouthWest1@nhs.net)

21 February 2011

Mrs Susanne Peeler  
Lecturer  
Somerset College  
SPS  
Somerset College, Wellington Road  
Taunton, Somerset  
TA1 5AX

Dear Mrs Peeler

**Study Title:** Investigation into the effectiveness of writing  
intervention on Post Traumatic Stress Disorder  
following childbirth.

**REC reference number:** 10/H0203/47

Thank you for your letter of 14 February 2011, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

**Confirmation of ethical opinion**

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised subject to the conditions specified below.

**Ethical review of research sites**

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see 'Conditions of the favourable opinion' below).

**Conditions of the favourable opinion**

The favourable opinion is subject to the following conditions being met prior to the start of the study:

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

This Research Ethics Committee is an advisory committee to the South West Strategic Health Authority  
The National Research Ethics Service (NRES) represents the NRES Directorate within  
the National Patient Safety Agency and Research Ethics Committees in England

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where the only involvement of the NHS organisation is as a Participant Identification Centre (PIC), management permission for research is not required but the R&D office should be notified of the study and agree to the organisation's involvement. Guidance on procedures for PICs is available in IRAS. Further advice should be sought from the R&D office where necessary.

Sponsors are not required to notify the Committee of approvals from host organisations.

**It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).**

#### Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

| Document   | Version | Date             |
|--|---------|------------------|
| Questionnaire: Demographic details                     | 1       | 01 July 2010     |
| Questionnaire: Scale of social support                 | 1       | 01 July 2010     |
| Questionnaire: General Self efficacy                   | 1       | 01 July 2010     |
| Advertisement  | 1       | 01 July 2010     |
| Response to Request for Further Information            | 1       | 14 February 2011 |
| Covering Letter  |         | 01 July 2010     |
| Covering Letter  |         | 16 December 2010 |
| GP/Consultant Information Sheets                       | 2       | 16 December 2010 |
| REC application  | 3.0     | 01 July 2008     |
| Questionnaire: Medical complaints                      | 1       | 01 July 2010     |
| Questionnaire: Perception of labour and delivery scale | 1       | 01 July 2010     |
| Questionnaire: Dyadic adjustment scale                 | 1       | 01 July 2010     |
| Questionnaire: posttraumatic stress diagnostic scale   | 1       | 01 July 2010     |
| Questionnaire: Birth data and Baby progress            | 1       | 01 July 2010     |
| Questionnaire: How are you feeling                     | 1       | 01 July 2010     |
| Questionnaire: Positive and negative affects scale     | 1       | 01 July 2010     |
| Questionnaire: Relationship scales                     | 1       | 01 July 2010     |
| Questionnaire: Five factor personality                 | 1       | 01 July 2010     |
| Questionnaire: how often do the following occur        | 1       | 01 July 2010     |
| Questionnaire: Statements re relationship              | 1       | 01 July 2010     |
| Questionnaire: Interview questions                     | 1       | 01 July 2010     |
| CV - Professor Man Cheung Chung                        |         | 01 July 2010     |
| Writing Therapy Instructions                           | 2       | 16 December 2010 |
| Participant Information Sheet                          | 2       | 16 December 2010 |
| Investigator CV  |         | 01 July 2010     |
| Participant Consent Form                               | 2       | 16 December 2010 |
| Protocol   | 1       | 01 July 2010     |
| Evidence of insurance or indemnity                     |         | 05 August 2009   |

|   |      |                  |
|---|------|------------------|
| Letter from Sponsor                       |      | 12 July 2010     |
| University of Plymouth Computing Policy   | 5.1  | 16 December 2010 |
| University of Plymouth Email Access Rules | 3.6a | 16 December 2010 |
| University of Plymouth ILS Privacy Policy | 7.3  | 16 December 2010 |

**Statement of compliance**

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

**After ethical review**

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email [referencegroup@nres.npsa.nhs.uk](mailto:referencegroup@nres.npsa.nhs.uk).

|             |  |
|-------------|--|
| 10/H0203/47 | Please quote this number on all correspondence |
|-------------|--|

With the Committee's best wishes for the success of this project

Yours sincerely




**Canon Ian Ainsworth-Smith**  
Chair

Enclosures: "After ethical review – guidance for researchers"

Copy to: Professor Man Chung

**Appendix iv. Subsequent Ethics Approval Letter**



**National Research Ethics Service**  
**NRES Committee South West - Cornwall & Plymouth**

South West REC Centre  
 Level 3  
 Block B  
 Whitefriars  
 Lewins Mead  
 Bristol  
 BS1 2NT

Tel: 0117 342 1330  
 Fax: 0117 342 0445  
 Email: [ubh-tr.SouthWest1@nhs.net](mailto:ubh-tr.SouthWest1@nhs.net)

22 June 2011

Mrs Susanne Peeler  
 SPS  
 Somerset College  
 Wellington Road  
 Taunton, Somerset  
 TA1 5AX

Dear Mrs Peeler

**Study title:** Investigation into the effectiveness of writing intervention on Post Traumatic Stress Disorder following childbirth.

**REC reference:** 10/H0203/47

**Amendment number:** 2

**Amendment date:** 10 June 2011

Thank you for submitting the above amendment, which was received on 17 June 2011. I can confirm that this is a valid notice of a substantial amendment and will be reviewed by the Sub-Committee of the REC at its next meeting.

**Documents received**

The documents to be reviewed are as follows:

| Document  | Version | Date             |
|---|---------|------------------|
| Interview Questions   | 2       | 13 June 2011     |
| Writing Instructions  | 4       | 14 March 2011    |
| Poster  | 2       | 24 May 2011      |
| Questionnaire: Maternal Confidence Questionnaire            | 1       | 24 May 2011      |
| Questionnaire: Post Traumatic Stress Disorder Questionnaire | 2       | 13 June 2011     |
| Protocol  | 2       | 13 June 2011     |
| Notice of Substantial Amendment (non-CTIMPs)                | 2       | 10 June 2011     |
| Covering Letter   |         | 16 June 2011     |
| Supervisors CV  |         | 01 November 2010 |

**Notification of the Committee's decision**

The Committee will issue an ethical opinion on the amendment within a maximum of 35 days from the date of receipt.

This Research Ethics Committee is an advisory committee to South West Strategic Health Authority  
 The National Research Ethics Service (NRES) represents the NRES Directorate within  
 the National Patient Safety Agency and Research Ethics Committees in England



## National Research Ethics Service

### R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval for the research.

10/H0203/47:

Please quote this number on all correspondence

Yours sincerely

**Charlotte Allen**  
Committee Co-ordinator

Copy to:

*Heather Skirton, University of Plymouth*  
*Dr Jeffrey Allen, Taunton and Somerset R&D Consortium*

This Research Ethics Committee is an advisory committee to South West Strategic Health Authority  
The National Research Ethics Service (NRES) represents the NRES Directorate within  
the National Patient Safety Agency and Research Ethics Committees in England



## Appendix v. Patient Information Sheet



### Participant Information Sheet

#### Part 1 Psychological Distress in Postnatal Women and Writing Therapy

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. One of our team will go through the information sheet with you and answer any questions you have. The team is comprised of some doctors from Musgrove Park, a professor at Plymouth University and an antenatal teacher. The research is privately funded at present.

Going through the information sheet should take about 10 minutes of your time. Feel free to talk to others about the study if you wish. Ask us if there is anything that is not clear.

#### What the Study is About

Sometimes events around birth don't always go according to plan. Some women may experience distressing symptoms such as reliving the event over and over, intrusive thoughts and dreams etc. Sometimes this can affect your quality of life after you have had a baby.

The study aims to look at whether writing about the events of a traumatic birth will help people experience fewer stressful symptoms after they have done so. You have been invited to take part because you have recently had a baby. You do not need to have experienced any particular symptoms in order to take part. We will be inviting about 1,000 women who have given birth at Musgrove Park to take part.

#### Condition Being Looked at

Following a traumatic birth women sometimes experience trauma symptoms which can affect the quality of their life (studies have shown the percentage of women affected can range between 6-20%). Writing therapy has been successful in reducing trauma symptoms in other cases where the trauma was from a different cause.

#### Can I Choose Whether to Take Part?

It is entirely up to you whether you would like to be part of the study, it will involve some of your time answering questionnaires and contacting my website and spending some time writing emails to me, but you will not need to travel anywhere, you can do everything from home. We will describe the study and go through this information sheet. If you agree to take part, we will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason. This would not affect the standard of care you receive.

Protocol reference 10/H0203/47

Version 6: 09.11.12

**What will happen during and after the study?**

If you do decide to be part of the study I will contact you in about a month's time and send you some questionnaires to fill out. There are about 12 in all and will probably take about 45 minutes to 1 hour to complete them, however you can take your time over them and you don't need to do them all at the same time. Some of the questions are of a personal nature and ask about your relationships. The reason these are included is that past research with other groups has indicated a link between the relationships you have and the severity of symptoms experienced. Some of the questions ask about specific traumatic experiences which people may find distressing. The reason these are included is that previously researchers have found that distressing events in the past can affect someone's response to current traumatic events.

Selected participants will then be given instructions about writing about specific things for 15 minutes three times in one week and emailing me what you have written. You will not need to write any longer than this. After one month I will contact you again and ask you to fill out some other questionnaires and this will be the end of the study. You will be randomly allocated to one of 3 groups where you are asked to write about slightly different things. You will be able to find out the results of the study if you want to. Also a few people will be randomly chosen to participate in some longer interviews at the end of the study. The people chosen will include those who wrote and those who didn't write. It is up to you whether you agree to do this.

Everyone who has taken part will be able to access a summary of the study which will be posted on my website [feelwrite.org.uk](http://feelwrite.org.uk)

**Participants' responsibilities**

It is important that you follow all the instructions about the writing and that you complete all three 15 minute sessions otherwise I will not be able to use the results.

**Potential risks**

Some people may find that taking part in the study will bring up painful thoughts which they find hard to cope with. If you experience any such difficulties it is important that you contact your GP or health visitor as soon as possible and explain how you are feeling. They will be able to refer you to counsellors, therapists and specialised help should you need it.

Protocol reference 10/H0203/47

Version 6.09.11.12



#### **How to access other help**

A full list of support options will be available on my website. A copy of this page will be given to all participants when they agree to be recruited. Here are a few of the options available, the rest can be found at [feelwrite.org.uk](http://feelwrite.org.uk)

- If you live near Plymouth information about useful services can be accessed from <http://www.plymouthpct.nhs.uk/services/plymouthoptions/Pages/default.aspx>.
- If you live near Taunton information about useful services can be accessed from <http://www.somerset.nhs.uk/welcome/healthy-living/mental-health/useful-links/>.
- Mindline Somerset offers an out of hours service for those in distress to have someone to listen to them, and support them when there are few other services available. The hours are Wednesday, Friday, Saturday, Sunday 8pm - Midnight they can be contacted on 01823 276 892.
- Alternatively Eleanor Copp is a local midwife and trauma counsellor who specializes in helping women with postnatal trauma. Eleanor charges for this service. She can be contacted on 01823 350945 or 07929 857608 [www.relaxedparenting.co.uk](http://www.relaxedparenting.co.uk)
- Please go to my website which lists many other sources of help under the links tab [feelwrite.org.uk](http://feelwrite.org.uk)

#### **Inconvenience/ benefits**

The good thing about this study is that you can stay at home to take part, you only need to find 15minutes three times in one week to write, and you may be helping other women if writing is found to help PTSD symptoms. Previous studies have found this kind of writing to have a variety of positive health benefits however this therapy is not used currently for postnatal women. Depending on the results of the study it could be introduced for many women.

This paper suggests that participation in a study such as this may have benefits.

Sheese B.E. Brown E.L. Graziano W.G. (2004) Emotional Expression in Cyberspace: Searching for Moderators of the Pennebaker Disclosure Effect *via* E-Mail. *Health Psychology* 23, 5, 457-464.

Protocol reference 10/H0203/47

Version 6, 09.11.12

**Part 2**

**Information about Confidentiality**

All information which I gather about you will be kept strictly confidential. Your name and personal details will not be given to any third parties or published.

All records which identify you will be kept confidential and, to the extent permitted by the applicable laws and/or regulations, will not be made publicly available. If the results of the trial are published, your identity will remain confidential.

**Data Protection**

Only those directly involved in the study will have access to information which you supply in the questionnaires or in the writing task, the website will be hosted by the University of Plymouth and will be secure.

**Communication with GP**

You are welcome to talk to your GP about taking part in this study. Upon your consent we will notify your GP that you are taking part in the study. We will not be requesting any extra information from them about you.

**Who to Contact**

If you have particular needs which make it difficult for you to read this document, please contact me using the details below.

If you have any questions, complaints or would like to talk further about anything to do with this study please don't hesitate to contact me; Susie Peeler by email on [utspeeler@plymouth.ac.uk](mailto:utspeeler@plymouth.ac.uk) or mobile 07570512394

**Questions to help you decide whether to take part**

- What is the point of the trial?  
To see whether writing about the events of a traumatic birth will help people experience fewer stressful symptoms after they have done so
- How will it help people?

Protocol reference 10/H0203/47

Version 6.09.11.12

This kind of therapy has been successful in reducing trauma symptoms in other cases, where the trauma was from a different cause.

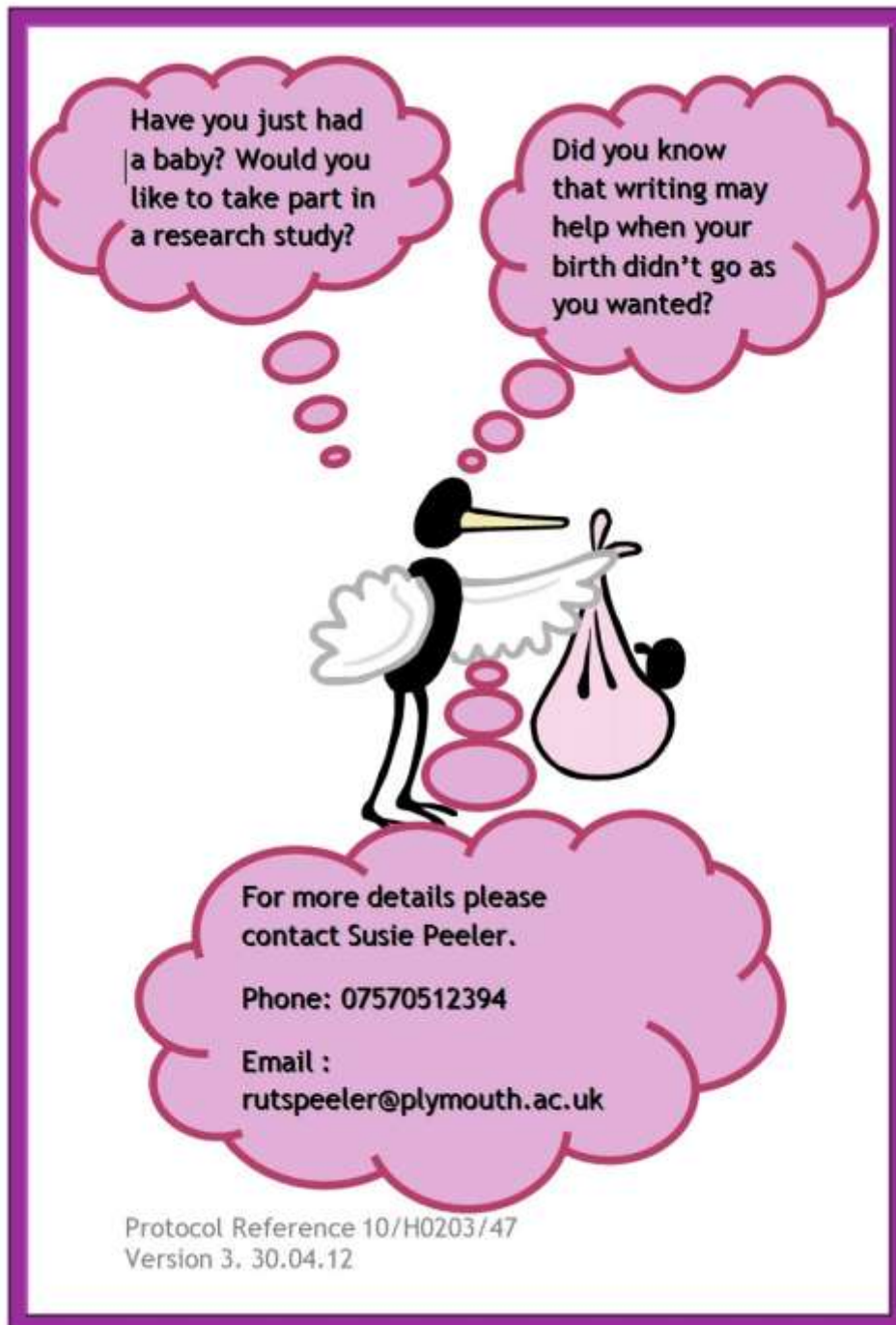
- **Who is taking part in it?**  
Women who have recently had a baby and have found that experience distressing or traumatic.
- **How will the trial affect my daily life?**  
At the start you will need to spend about 45 minutes completing some questionnaires. You will then need to set aside 15 minutes three times over one week to write at the computer. One month later you will need to spend another 45 minutes completing the questionnaires. This may bring up unpleasant thoughts about your birth experience.
- **Will I need to visit the clinic?**  
You will not need to leave your house.
- **What other medication can I take when I am taking part in this trial?**  
Please continue with all your usual medications.
- **How long will the trial last?**  
When your baby is one month old you will be asked to fill in some questionnaires. If you are selected for the 'writing' group, you will then be asked to write three times in one week. One month later you will be asked to fill in some questionnaires. For most people this will be the end of the study, but some women may be asked to participate in interviews during the next couple of weeks. So in all the trial lasts a maximum of about two months.
- **Will I be told about the results of the trial when it ends?**  
You will be able to access updates and summaries on my website [feelwrite.org.uk](http://feelwrite.org.uk)
- **Who is funding the trial?**  
This has not been funded by any companies or organisations. I am covering the costs myself.
- **Is there anything I am not allowed to do while I am taking part in the trial?**  
It is fine to carry on your life as normal
- **Who can I talk to if I have any more questions?**  
Susie Peeler by email on [rutspeeler@plymouth.ac.uk](mailto:rutspeeler@plymouth.ac.uk) or mobile 07570512394

Protocol reference 10/H0203/47

Version 6.09.11.12



Appendix vii. Poster Advertising Study



Appendix viii. Antenatal clinic advertisement

**“It was the greatest achievement of my life!”**



I'm looking forward to having my baby...

I'm not really sure what it will be like.....

What if things don't turn out quite how I expected?

I'm researching the feelings of 'first time' mums after birth. Look out for my poster on the maternity unit if you'd like to help. For more information you can visit my website : [feelwrite.org.uk](http://feelwrite.org.uk) or email: [rutspeeler@plymouth.ac.uk](mailto:rutspeeler@plymouth.ac.uk)  
Thank-you !! Susie Peeler



## Appendix ix. Letter to GP

**EMPOWER  
WITH  
PLYMOUTH  
UNIVERSITY**

Social & Professional Studies  
Somerset College  
Wellington Rd  
Taunton  
Somerset  
TA1 5AX

Email: [rutspeeler@plymouth.ac.uk](mailto:rutspeeler@plymouth.ac.uk)  
Phone: 07570512394

**Dear Sir/Madam**

I am writing to inform you that your patient.....  
has recently consented to take part in the following study.

**Title of Study-** Post Traumatic Stress Disorder (PTSD) in Postnatal Women and Writing Therapy.

The study will take place between January 2012 and January 2014.

The women in this study will have been contacted whilst on the postnatal ward and asked to consent to the following:

- Take part in writing therapy when their baby is 1 month old. The therapy will involve them writing about certain topics for 3 x 15 minute sessions during the course of one week. The women will be able to undertake the writing using the internet from their own home at times that suit them.
- Completion of a number of questionnaires before they begin writing, at the end of the writing week and again one month later. This should take about 45 minutes to 1 hour, but the questionnaires do not have to be completed all at the same time.
- Women have been informed that a small number may be asked to answer some further questions and that they can withdraw from this study at any point.

I attach the participant information sheet. Please do not hesitate to contact me if you require any further information

Yours sincerely

Susanne Peeler

Protocol Number 10/H0203/47  
Version 2. 16.12.10

## Appendix x. Questionnaires

### Appendix x.a. Demographic Questionnaire

**RESEARCH  
WITH  
PLYMOUTH  
UNIVERSITY**

**Demographic details**

**Which category below includes your age?**  
18-20  
21-29  
30-39  
40-49  
50 or older

**Marital status**  
Single  
Married  
Co-habiting  
Separated/divorced  
Widowed

**What is your ethnic origin?**  
White British  
European  
Black British  
Asian  
Other please specify

**What is your occupation type?**  
Manual  
Clerical  
Middle manager/teacher  
Doctor/Lawyer  
Other please specify

**What is your educational level?**  
I left school before obtaining GCSEs (or equivalent)  
I have GCSEs (or equivalent)  
I have A levels (or equivalent)  
I have a Degree (or equivalent)  
I have a Masters Degree (or equivalent)  
I have a Doctorate

Protocol Number 10/H0203/47  
Version 3. 06.06.12



Is this your first baby?

Yes/No

If no, how many other children do you have?

|

Protocol Number 10/H0203/47  
Version 3. 06.06.12

## Appendix x.b. Baby Progress Questionnaire



### Birth Data and Baby Progress Checklist

Please tick the appropriate box

|   | Yes | No |
|---|-----|----|
| Was your pregnancy planned?                             |     |    |
| Was your partner present at the birth?                  |     |    |
| Has your baby been gaining weight normally?             |     |    |
| Has your baby been sleeping normally?                   |     |    |
| Has your baby been feeding normally?                    |     |    |
| Has your baby had to return to hospital for any reason? |     |    |

Protocol Reference: 10/0203/47  
Version 1. 1/07/10

## Appendix x.c. Perception of Labour & Delivery Scale

**EMPOWER  
WITH  
PLYMOUTH  
UNIVERSITY**

### Perception of Labour and Delivery Scale.

Please circle the number which best represents your experience. 1= not at all to 10= extremely.

1. Overall, how pleasurable was your experience of labour and delivery?

1 2 3 4 5 6 7 8 9 10

2. At its worst how severe was your pain during labour and delivery?

1 2 3 4 5 6 7 8 9 10

3. On average how severe was your pain during labour and delivery?

1 2 3 4 5 6 7 8 9 10

4. How distressing did you find the pain you experienced?

1 2 3 4 5 6 7 8 9 10

5. In general how distressing did you find the overall experience of labour and delivery?

1 2 3 4 5 6 7 8 9 10

6. How satisfied were you with the way you coped during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

7. How prepared did you feel during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

8. At its worst how fearful did you feel for yourself during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

9. At its worst how fearful did you feel for your baby during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

10. On average how fearful did you feel for yourself during labour and delivery?

1 2 3 4 5 6 7 8 9 10

Protocol Number 10/0203/47  
Version 1. 1/07/10

11. On average how fearful did you feel for your baby during labour and delivery?

1 2 3 4 5 6 7 8 9 10

12. How unexpected were the procedures that you experienced during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

13. How confident did you feel about being able to cope during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

14. How supportive were staff during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

15. How supportive was your partner/other relative during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

16. How much did you feel in control of what was happening during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

17. How well-informed did you feel about the progress of your labour and delivery?

1 2 3 4 5 6 7 8 9 10

18. How much did you feel that your wishes and views were listened to by staff during your labour and delivery?

1 2 3 4 5 6 7 8 9 10

19. How much was your experience of labour and delivery worse than you had expected?

1 2 3 4 5 6 7 8 9 10

20. How much was your experience of labour and delivery better than you had expected?

1 2 3 4 5 6 7 8 9 10

21. How far did you feel responsible for any difficulties you experienced?

1 2 3 4 5 6 7 8 9 10

22. How far did you feel staff were responsible for any difficulties you experienced?

1 2 3 4 5 6 7 8 9 10

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23. On the whole do you feel that you coped as well with your labour and delivery as others would have if they had been in your position?

1    2    3    4    5    6    7    8    9    10

**Reference**

Baillham D, Slade P, Joseph S. (2004) Principle components analysis of the perceptions of labour and delivery scale and revised scoring criteria. *J Repro and Infant Psychology* vol 22 issue 3 pp 157-165

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## Appendix x.d. Past PTSD and PTSD Questionnaires

### PTSD Checklist Weathers et al. (1993)

#### Life Events Checklist

Listed below are a number of difficult or stressful things that sometimes happen to people. For each event click on one or more of the boxes to indicate that a) it happened to you personally, b) you witnessed it happen to someone else, c) you learned about it happening to someone close to you, d) you're not sure if it fits or e) it doesn't apply to you

Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.

| Event  | Happened to me | Witnessed it | Learned about it | Not sure | Doesn't apply |
|--|----------------|--------------|------------------|----------|---------------|
| Natural disaster (for example flood hurricane tornado earthquake)          |                |              |                  |          |               |
| Fire or explosion  |                |              |                  |          |               |
| Transport accident (eg car accident boat accident train wreck plane crash) |                |              |                  |          |               |
| Serious accident at work, home or during recreational activity             |                |              |                  |          |               |
| Exposure to toxic substance (eg dangerous chemicals radiation)             |                |              |                  |          |               |
| Physical assault (eg being attacked hit slapped)                           |                |              |                  |          |               |

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|  |  |  |  |  |  |
|--|--|--|--|--|--|
| kicked beaten up)  |  |  |  |  |  |
| Assault with a weapon (eg being shot stabbed threatened with a knife, gun bomb)                                |  |  |  |  |  |
| Sexual assault (eg rape attempted rape made to perform any sort of sexual act through force or threat of harm) |  |  |  |  |  |
| Other unwanted or uncomfortable sexual experience  |  |  |  |  |  |
| Combat or exposure to a war- zone (in the military or as a civilian)   |  |  |  |  |  |
| Captivity (eg being kidnapped abducted held hostage or prisoner of war)  |  |  |  |  |  |
| Life threatening illness or injury   |  |  |  |  |  |
| Severe human suffering   |  |  |  |  |  |
| Sudden violent death of someone close to you   |  |  |  |  |  |
| Serious injury harm or death you caused to   |  |  |  |  |  |

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|  |  |  |  |  |  |
|--|--|--|--|--|--|
| someone else                                 |  |  |  |  |  |
| Any other very stressful event or experience |  |  |  |  |  |

Do you consider that any of your past births were traumatic?

|     |  |
|-----|--|
| Yes |  |
| No  |  |

Below is a list of problems and complaints that people sometimes have in response to stressful life experiences including a birth experience. Please read each one carefully then click on one of the numbers to the right of the questions to indicate how much you have been bothered by that problem in the past month.

|   | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|------------|--------------|------------|-------------|-----------|
| Repeated disturbing memories thoughts or images of the birth  | 1          | 2            | 3          | 4           | 5         |
| Repeated disturbing dreams of the birth   | 1          | 2            | 3          | 4           | 5         |
| Finding yourself suddenly acting or feeling as if the birth experience was happening again (as if you were reliving it) | 1          | 2            | 3          | 4           | 5         |
| Feeling upset   | 1          | 2            | 3          | 4           | 5         |

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|   |   |   |   |   |   |
|---|---|---|---|---|---|
| when something reminded you of the birth experience   |   |   |   |   |   |
| Having physical reactions (eg heart pounding, trouble breathing, sweating) when something reminded you of the birth | 1 | 2 | 3 | 4 | 5 |
| Avoiding thinking or talking about the birth or avoiding having feelings related to it                              | 1 | 2 | 3 | 4 | 5 |
| Avoiding activities or situations because they remind you of the birth experience                                   | 1 | 2 | 3 | 4 | 5 |
| Trouble remembering important part of the birth experience  | 1 | 2 | 3 | 4 | 5 |
| Loss of interest in activities that you used to enjoy   | 1 | 2 | 3 | 4 | 5 |
| Feeling distant or cut off from other people  | 1 | 2 | 3 | 4 | 5 |
| Feeling emotionally numb or being unable to have loving feelings  | 1 | 2 | 3 | 4 | 5 |

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|   |   |   |   |   |   |
|---|---|---|---|---|---|
| for those close to you                              |   |   |   |   |   |
| Feeling as if your future somehow will be cut short | 1 | 2 | 3 | 4 | 5 |
| Trouble falling or staying asleep                   | 1 | 2 | 3 | 4 | 5 |
| Feeling irritable or having angry outbursts         | 1 | 2 | 3 | 4 | 5 |
| Having Difficulty concentrating                     | 1 | 2 | 3 | 4 | 5 |
| Being 'superalert' or watchful or on guard          | 1 | 2 | 3 | 4 | 5 |
| Feeling jumpy or easily startled                    | 1 | 2 | 3 | 4 | 5 |

Weathers, F.W. Litz B.T. Herman, D.S. Huska, J.A. Keane, T.M. (1993) The PTSD Checklist: reliability validity and diagnostic utility. Paper presented at the Annual Meeting of the International Society for Traumatic Stress Studies. San Antonio, TX, October.

Weathers F.W. Huska J.A. Keane, T.M. (1991) The PTSD checklist civilian version (PCL-C) Scale available for the first author at the National Centre for PTSD Boston VA Medical Center 150 S. Huntington Ave Boston MA 02130

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## Appendix x.e. General Health Questionnaire



We should like to know if you have had any medical complaints and how your health has been since the birth. Please answer ALL of the following questions simply by clicking on the response which you think most closely applies to you. Have you recently ....

|   |                    |                     |                           |                        |
|---|--------------------|---------------------|---------------------------|------------------------|
| Been feeling perfectly well and in good health?               | Better than usual  | Same as usual       | Worse than usual          | Much worse than usual  |
| Been feeling in need of a good tonic?                         | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Been feeling run down and out of sorts?                       | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Felt that you are ill?  | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Been getting any pains in your head?                          | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Been getting a feeling of tightness or pressure in your head? | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Been having hot or cold spells?                               | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Lost much sleep over worry?                                   | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Had difficulty in staying asleep once you are off?            | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Felt constantly under strain?                                 | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Been getting edgy and bad tempered?                           | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Been getting scared or panicky for no good reason?            | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Found everything getting on top of you?                       | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Been feeling nervous and strung-up all the time?              | Not at all         | No more than usual  | Rather more than usual    | Much more than usual   |
| Been managing to keep yourself busy and occupied?             | More so than usual | Same as usual       | Rather less than usual    | Much less than usual   |
| Been taking longer over things you do?                        | Quicker than usual | Same as usual       | Longer than usual         | Much longer than usual |
| Felt on the whole you were doing things well?                 | Better than usual  | About the same      | Less well than usual      | Much less well         |
| Been satisfied with the way you've carried out your task?     | More satisfied     | About same as usual | Less satisfied than usual | Much less satisfied    |
| Felt that you are playing a useful part in things?            | More so than usual | Same as usual       | Less useful than usual    | Much less useful       |

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|   |                    |                    |                        |                      |
|---|--------------------|--------------------|------------------------|----------------------|
| Felt capable of making decisions about things?                            | More so than usual | Same as usual      | Less so than usual     | Much less capable    |
| Been able to enjoy your normal day-to-day activities?                     | More so than usual | Same as usual      | Less so than usual     | Much less than usual |
| Been thinking of yourself as a worthless person?                          | Not at all         | No more than usual | Rather more than usual | Much more than usual |
| Felt that life is entirely hopeless?                                      | Not at all         | No more than usual | Rather more than usual | Much more than usual |
| Felt that life isn't worth living?  | Not at all         | No more than usual | Rather more than usual | Much more than usual |
| Thought of the possibility that you might make away with yourself?        | Definitely not     | I don't think so   | Has crossed my mind    | Definitely have      |
| Found at times you couldn't do anything because your nerves were too bad? | Not at all         | No more than usual | Rather more than usual | Much more than usual |
| Found yourself wishing you were dead and away from it all?                | Not at all         | No more than usual | Rather more than usual | Much more than usual |
| Found that the idea of taking your own life kept coming into your mind?   | Definitely not     | I don't think so   | Has crossed my mind    | Definitely has       |

Goldberg, D.P., Hillier, V.F. (1979) 'A scaled version of the General Health Questionnaire'. *Psychol Med*, 9:139-45.

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## Appendix x.f. PND Questionnaire

|   |                    |   |
|---|--------------------|---|
| <b>How Are You Feeling?</b>   |                    | <b>EMPOWER<br/>WITH<br/>PLYMOUTH<br/>UNIVERSITY</b> |
| Today's date.....   | Baby's age.....    |   |
| Baby's date of birth.....   | Birth weight.....  |   |
| Triples/twins/single.....   | Male / female..... |   |
| Mother's age.....   |                    |   |
| Number of other children: 0 1 2 3 4 5 <u>5</u> + (please circle)  |                    |   |
| <p>As you have recently had a baby, we would like to know how you are feeling now.<br/>Please underline the answer which comes closest to how you have felt in the past 7 days, not just how you feel today.</p> <p><b>Example:</b><br/>I have felt happy:<br/>Yes, most of the time<br/><u>Yes, some of the time</u><br/>No, not very often<br/>No, not at all.</p> <p>This would mean: "I have felt happy some of the time" during the past week. Please complete the other questions the same way.</p> |                    |   |
| <b>In the past Seven Days</b>   |                    |   |
| 1. I have been able to laugh and see the funny side of things:  |                    |   |
| <ul style="list-style-type: none"><li>• As much as I always could</li><li>• Not quite as much now</li><li>• Definitely not so much now</li><li>• Not at all</li></ul>   |                    |   |
| 2. I have looked forward with enjoyment to things:  |                    |   |
| <ul style="list-style-type: none"><li>• As much as I ever did</li><li>• Rather less than I used to</li><li>• Definitely less than I used to</li><li>• Hardly at all</li></ul>   |                    |   |
| 3. I have blamed myself unnecessarily when things went wrong:   |                    |   |
| <ul style="list-style-type: none"><li>• Yes, most of the time</li><li>• Yes, some of the time</li><li>• Not very often</li><li>• No, never</li></ul>  |                    |   |
| 4. I have felt worried and anxious for no very good reason:   |                    |   |
| <ul style="list-style-type: none"><li>• No, not at all</li><li>• Hardly ever</li></ul>  |                    |   |
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- Yes, sometimes
- Yes, very often

5. I have felt scared or panicky for no very good reason:

- Yes, quite a lot
- Yes, sometimes
- No, not much
- No, not at all

6. Things have been getting on top of me:

- Yes, most of the time I haven't been able to cope at all
- Yes, sometimes I haven't been coping as well as usual
- No, most of the time I have coped quite well
- No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping:

- Yes, most of the time
- Yes, sometimes
- Not very often
- No, not at all

8. I have felt sad or miserable:

- Yes, most of the time
- Yes, quite often
- Not very often
- No, not at all

9. I have been so unhappy that I have been crying:

- Yes, most of the time
- Yes, quite often
- Only occasionally
- No, never

10. The thought of harming myself has occurred to me:

- Yes, quite often
- Sometimes
- Hardly ever
- Never

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)

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## Appendix x.g. Positive and Negative Affects Scale

### Positive and Negative Affects Scale

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt the following emotions over the past few weeks. Use the following scale to record your answers. (Write the appropriate number next to the emotion)

| 1              | 2        | 3            | 4           | 5         |
|----------------|----------|--------------|-------------|-----------|
| very slightly  | a little | moderately   | quite a bit | extremely |
| or not at all  |          |              |             |           |
| _ interested   |          | _ irritable  |             |           |
| _ distressed   |          | _ alert      |             |           |
| _ excited      |          | _ ashamed    |             |           |
| _ upset        |          | _ inspired   |             |           |
| _ strong       |          | _ nervous    |             |           |
| _ guilty       |          | _ determined |             |           |
| _ scared       |          | _ attentive  |             |           |
| _ hostile      |          | _ jittery    |             |           |
| _ enthusiastic |          | _ active     |             |           |
| _ proud        |          | _ afraid     |             |           |

### Reference

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Watson D., Clark L., Tellegen A. (1988) Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS scales. *J Personality and Social Psychology*, 54; 1063-1070

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## Appendix x.h. Self-Efficacy Scale



### The General Self efficacy Scale

Please indicate how true each of the following statements is for you.

Where 1=Not at all true,

2= Hardly true,

3= Moderately true,

4= Exactly true.

I can always manage to solve difficult problems if I try hard enough.

1   2   3   4

If someone opposes me, I can find the means and ways to get what I want.

1   2   3   4

It is easy for me to stick to my aims and accomplish my goals.

1   2   3   4

I am confident that I could deal efficiently with unexpected events.

1   2   3   4

Thanks to my resourcefulness, I know how to handle unforeseen situations.

1   2   3   4

I can solve most problems if I invest the necessary effort.

1   2   3   4

I can remain calm when facing difficulties because I can rely on my coping abilities.

1   2   3   4

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When I am confronted with a problem, I can usually find several solutions.

1 2 3 4

If I am in trouble, I can usually think of a solution.

1 2 3 4

I can usually handle whatever comes my way.

1 2 3 4

#### Reference

Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), *Self-efficacy: Thought control of action* (pp. 195-213). Washington, DC: Hemisphere.

## Appendix x.i. Relationship Assessment Scale

**EMPOWER  
WITH  
PLYMOUTH  
UNIVERSITY**

### The Relationship Assessment Scale

Please indicate on a scale of 1-5 how you feel about your current relationship

Where 1= strongly disagree

2=disagree

3=neither agree nor disagree

4=agree

5= strongly agree

- My partner meets my needs
- In general, I am satisfied with our relationship
- Our relationship is good compared to most
- Our relationship has met my original expectations.
- I love my partner

Please indicate on a scale of 1-5 how you feel about your current relationship

Where 1= strongly disagree

2=disagree

3=neither agree nor disagree

4=agree

5= strongly agree

- I wish I hadn't got into this relationship
- There are problems in our relationship

Scores could range from 1 (low satisfaction) to 5 (high satisfaction). Items 4 and 7 are reverse coded.

Hendrick S, Dicke A, Hendrick, C.(1998) The Relationship Assessment Scale J. Social and Personal Relationships 15 (1) 137-142.

## Appendix x.j. Relationship Scales Questionnaire



### Relationships Scales Questionnaire

#### Instructions

Please read of the following statements and rate the extent to which it describes your feelings about close relationships. Think about all of your close relationships and respond in terms of how you generally feel in these relationships. Please circle your answer.

|     |  | Not at all<br>like me |   | Somewhat<br>like me | Very much<br>like me |   |
|-----|--|-----------------------|---|---------------------|----------------------|---|
|     |  | 1                     | 2 | 3                   | 4                    | 5 |
| 1.  | I find it difficult to depend on other people.                                 | 1                     | 2 | 3                   | 4                    | 5 |
| 2.  | It is very important to me to feel independent.                                | 1                     | 2 | 3                   | 4                    | 5 |
| 3.  | I find it easy to get emotionally close to others.                             | 1                     | 2 | 3                   | 4                    | 5 |
| 4.  | I want to merge completely with another person.                                | 1                     | 2 | 3                   | 4                    | 5 |
| 5.  | I worry that I will be hurt if I allow myself to become too close to others.   | 1                     | 2 | 3                   | 4                    | 5 |
| 6.  | I am comfortable without close emotional relationships.                        | 1                     | 2 | 3                   | 4                    | 5 |
| 7.  | I am not sure that I can always depend on others to be there when I need them. | 1                     | 2 | 3                   | 4                    | 5 |
| 8.  | I want to be completely emotionally intimate with others.                      | 1                     | 2 | 3                   | 4                    | 5 |
| 9.  | I worry about being alone.   | 1                     | 2 | 3                   | 4                    | 5 |
| 10. | I am comfortable depending on other people.                                    | 1                     | 2 | 3                   | 4                    | 5 |
| 11. | I often worry that romantic partners don't really love me.                     | 1                     | 2 | 3                   | 4                    | 5 |
| 12. | I find it difficult to trust others completely.                                | 1                     | 2 | 3                   | 4                    | 5 |
| 13. | I worry about others getting too close to me.                                  | 1                     | 2 | 3                   | 4                    | 5 |
| 14. | I want emotionally close relationships.  | 1                     | 2 | 3                   | 4                    | 5 |
| 15. | I am comfortable having other people depend on me.                             | 1                     | 2 | 3                   | 4                    | 5 |
| 16. | I worry that others don't value me as much as I value them.                    | 1                     | 2 | 3                   | 4                    | 5 |
| 17. | People are never there when you need them.                                     | 1                     | 2 | 3                   | 4                    | 5 |
| 18. | My desire to merge completely sometimes scares people away.                    | 1                     | 2 | 3                   | 4                    | 5 |
| 19. | It is very important to me to feel self-                                       | 1                     | 2 | 3                   | 4                    | 5 |

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|     |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|
|     | sufficient.   |   |   |   |   |   |
| 20. | I am nervous when anyone gets too close to me.                    | 1 | 2 | 3 | 4 | 5 |
| 21. | I often worry that romantic partners won't want to stay with me.  | 1 | 2 | 3 | 4 | 5 |
| 22. | I prefer not to have other people depend on me.                   | 1 | 2 | 3 | 4 | 5 |
| 23. | I worry about being abandoned.                                    | 1 | 2 | 3 | 4 | 5 |
| 24. | I am somewhat uncomfortable being close to others.                | 1 | 2 | 3 | 4 | 5 |
| 25. | I find that others are reluctant to get as close as I would like. | 1 | 2 | 3 | 4 | 5 |
| 26. | I prefer not to depend on others.                                 | 1 | 2 | 3 | 4 | 5 |
| 27. | I know that others will be there when I need them.                | 1 | 2 | 3 | 4 | 5 |
| 28. | I worry about having others not accept me.                        | 1 | 2 | 3 | 4 | 5 |
| 29. | People often want me to be closer than I feel comfortable being.  | 1 | 2 | 3 | 4 | 5 |
| 30. | I find it relatively easy to get close to others.                 | 1 | 2 | 3 | 4 | 5 |

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## Appendix x.k. MSPSS



### Scale of Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

- Circle the "1" if you Very Strongly Disagree
- Circle the "2" if you Strongly Disagree
- Circle the "3" if you Mildly Disagree
- Circle the "4" if you are Neutral
- Circle the "5" if you Mildly Agree
- Circle the "6" if you Strongly Agree
- Circle the "7" if you Very Strongly Agree

There is a special person who is around when I am in need.

1   2   3   4   5   6   7   (SO)

There is a special person with whom I can share my joys and sorrows.

1   2   3   4   5   6   7   (SO)

My family really tries to help me.

1   2   3   4   5   6   7   (Fam)

I get the emotional help and support I need from my family.

1   2   3   4   5   6   7   (Fam)

I have a special person who is a real source of comfort to me.

1   2   3   4   5   6   7   (SO)

My friends really try to help me.

1   2   3   4   5   6   7   (Fri)

I can count on my friends when things go wrong.

1   2   3   4   5   6   7   (Fri)

I can talk about my problems with my family.

1   2   3   4   5   6   7   (Fam)

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I have friends with whom I can share my joys and sorrows.

1 2 3 4 5 6 7 (Fri)

There is a special person in my life who cares about my feelings.

1 2 3 4 5 6 7 (SO)

My family is willing to help me make decisions.

1 2 3 4 5 6 7 (Fam)

I can talk about my problems with my friends.

1 2 3 4 5 6 7 (Fri)

#### References

Canty-Mitchell, J. & Zimet, G.D. (2000). Psychometric properties of the Multidimensional Scale of Perceived Social Support in urban adolescents. *American Journal of Community Psychology*, 28, 391-400.

Zimet, G.D., Dahlem, N.W., Zimet, S.G. & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30-41.

Zimet, G.D., Powell, S.S., Farley, G.K., Werkman, S. & Berkoff, K.A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 55, 610-17.

**Appendix x.I. Maternal Confidence Questionnaire**



**Maternal Confidence Questionnaire**

How confident do you feel in your parenting role? (Mark an (X) in the appropriate box.)

| Question   | Never<br>1 | Seldom<br>2 | Some<br>3 | Often<br>4 | A great deal<br>5 |
|--|------------|-------------|-----------|------------|-------------------|
| 1. I know when my baby wants me to play with him/her.          |            |             |           |            |                   |
| 2. I know how to take care of my baby better than anyone else. |            |             |           |            |                   |
| 3. When my baby is cranky, I know the reason.                  |            |             |           |            |                   |
| 4. I can tell when my baby is tired and needs to sleep.        |            |             |           |            |                   |
| 5. I know what makes my baby happy.                            |            |             |           |            |                   |
| 6. I can give my baby a bath.                                  |            |             |           |            |                   |
| 7. I can feed my baby adequately.                              |            |             |           |            |                   |
| 8. I can hold my   |            |             |           |            |                   |

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|   |  |  |  |  |  |
|---|--|--|--|--|--|
| baby properly.  |  |  |  |  |  |
| 9. I can tell when my baby is sick.   |  |  |  |  |  |
| 10. I feel frustrated taking care of my baby.   |  |  |  |  |  |
| 11. I would be good at helping other mothers learn how to take care of their infants. |  |  |  |  |  |
| 12. Being a parent is demanding and unrewarding.                                      |  |  |  |  |  |
| 13. I have all the skills needed to be a good parent.                                 |  |  |  |  |  |
| 14. I am satisfied with my role as a parent.  |  |  |  |  |  |

**Reference**

Parker S. Zahr L. (1985) *The Maternal Confidence Questionnaire*. Boston, MA: Boston City Hospital.

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# Appendix x.m. Toronto Alexithymia Questionnaire



## Twenty-Item Toronto Alexithymia Scale (TAS-20)

Using the scale provided as a guide, indicate how much you agree or disagree with each of the following statements by circling the corresponding number. Give only one answer for each statement.

- Circle 1 if you STRONGLY DISAGREE
- Circle 2 if you MODERATELY DISAGREE
- Circle 3 if you NEITHER DISAGREE NOR AGREE
- Circle 4 if you MODERATELY AGREE
- Circle 5 if you STRONGLY AGREE

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. I am often confused about what emotion I am feeling.                                       | 1 | 2 | 3 | 4 | 5 |
| 2. It is difficult for me to find the right words for my feelings.                            | 1 | 2 | 3 | 4 | 5 |
| 3. I have physical sensations that even doctors don't understand.                             | 1 | 2 | 3 | 4 | 5 |
| 4. I am able to describe my feelings easily.  | 1 | 2 | 3 | 4 | 5 |
| 5. I prefer to analyze problems rather than just describe them.                               | 1 | 2 | 3 | 4 | 5 |
| 6. When I am upset, I don't know if I am sad, frightened, or angry.                           | 1 | 2 | 3 | 4 | 5 |
| 7. I am often puzzled by sensations in my body.   | 1 | 2 | 3 | 4 | 5 |
| 8. I prefer to just let things happen rather than to understand why they turned out that way. | 1 | 2 | 3 | 4 | 5 |
| 9. I have feelings that I can't quite identify.   | 1 | 2 | 3 | 4 | 5 |
| 10. Being in touch with emotions is essential.  | 1 | 2 | 3 | 4 | 5 |
| 11. I find it hard to describe how I feel about people.                                       | 1 | 2 | 3 | 4 | 5 |

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|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 12. People tell me to describe my feelings more.  | 1 | 2 | 3 | 4 | 5 |
| 13. I don't know what's going on inside me.   | 1 | 2 | 3 | 4 | 5 |
| 14. I often don't know why I am angry.  | 1 | 2 | 3 | 4 | 5 |
| 15. I prefer talking to people about their daily activities rather than their feelings. | 1 | 2 | 3 | 4 | 5 |
| 16. I prefer to watch "light" entertainment shows rather than psychological dramas.     | 1 | 2 | 3 | 4 | 5 |
| 17. It is difficult for me to reveal my innermost feelings, even to close friends.      | 1 | 2 | 3 | 4 | 5 |
| 18. I can feel close to someone, even in moments of silence.                            | 1 | 2 | 3 | 4 | 5 |
| 19. I find examination of my feelings useful in solving personal problems.              | 1 | 2 | 3 | 4 | 5 |
| 20. Looking for hidden meanings in movies or plays distracts from their enjoyment.      | 1 | 2 | 3 | 4 | 5 |

Bagby, R.M., Taylor, G.J., & Parker, J.D.A. (1994). The Twenty-Item Toronto Alexithymia Scale -- II. Convergent, discriminant, and concurrent validity. *Journal of Psychosomatic Research*, 38, 33-40.

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## Appendix xi. Writing Instructions

### **INSTRUCTIONS BEFORE YOU START WRITING (group 1)**

When we experience something like birth it has the ability to affect many parts of our lives, and sometimes in unexpected ways. This study provides an opportunity for women who have given birth for the first time to express, through writing, their thoughts and emotions about their birth experience. The study aims to investigate the effect of such writing on well being.

If you take part in the study you will be asked to spend some time writing three times over the next week about issues surrounding your birth experience. So we can see if this is useful to women in your situation. In all you will only need to set aside about 15 minutes three times in the next week. It may seem difficult at first but it may be very helpful for you. Please give it a go. These writing sessions are for you to express yourself. What you write will remain private.

A month after your baby has been born I will send you a link to a page on Survey Monkey which has instructions about what to write and how much to write. We have found for most people this is about 200 to 500 words within 15 minutes. Don't worry if you write less than this or more as the specific amount of words is not important but just that you try to write for 15 minutes please be strict with yourself about the timing. You do not need to worry about writing style or grammar, just allow your words to flow how you want.

Survey Monkey is a well respected method of running surveys and questionnaires, it is secure and confidential so you will be anonymous and your data will not be accessible by anyone other than me. If you would like to take a look at Survey Monkey before you start here is the link [www.surveymonkey.com](http://www.surveymonkey.com)

Protocol reference 10/H0203/47  
Version 4.14.3.11

### **First writing session**

In this session I would like you to write about your emotions and thoughts about your birth experience. Here are some pointers to get you started.

#### Before the birth

- What was your expectation before the birth?

#### During the Birth

- Where were you and who was with you when labour started?
- What were you thinking and feeling when labour started?
- As labour progressed what did you think and feel about the pain?
- What was your experience of the maternity staff?
- What was your experience of your birth supporter or partner?

#### After the birth

- What were you thinking and feeling after the birth?
- How did you feel about others around you after the birth?
- Has the experience affected your relationship with those you love?
- Has the experience affected your dreams?

You can write about the same event for all of the time or about related things as they come to your mind. However, please try to be as honest as possible with yourself. Try to let go and explore your very deepest emotions and thoughts.

### **Thanks**

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. This task inevitably brings up thoughts and emotions. The first session is always the most difficult. Sometimes people will feel upset when remembering the experience but this is not unusual. Remember if you need anyone to talk to please go to the links on my website for help. [feelwrite.org.uk](http://feelwrite.org.uk)

Protocol reference 10/H0203/47  
Version 4, 14.3.11

**Second writing session**

In the first writing session you explored your thoughts and feelings about your birth experience. This time will be basically the same but now you need to really let go and write about all your memories of the event. Please continue where you left off from the previous session.

You can write about the same event for all of the time or about related things as they come to your mind. However, please try to be as honest as possible with yourself. Try to let go and explore your very deepest emotions and thoughts.

**Thanks**

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. This task inevitably brings up thoughts and emotions. Sometimes people will feel upset when remembering the experience but this is not unusual. Remember if you need anyone to talk to please go to the links on my website for help. [feelwrite.org.uk](http://feelwrite.org.uk)

### **Third Writing Session**

Over the last two sessions, you wrote about your thoughts and feelings about a very big event in your life. This time we will look at other aspects of that event. Please note that you are free to choose to write again the way you did in the first two sessions.

The event which you have been writing about has affected not just you, but everyone else around you. The way you think and talk to people about it may have changed. Whatever your experiences have been, you may find that you have useful advice to offer others as a result of going through them.

As it is the third session please feel free to write about anything now which you have not previously included about the birth experience and still feel you wish to write. As you write try to imagine that you are letting go of some of the more painful experiences which you have written about.

Although it may have been hard for you to write over these days you may already have learned that by writing about your experiences you have organised your story better. Hopefully it also has showed you a way to get more control over your reactions and feelings; it is possible that some people may experience reactions due to the writing more over the next days than today. However you can write down your thoughts like this on your own at any time in the future and you can keep or get rid of what you write as you choose.

### **Thanks**

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. This task inevitably brings up thoughts and emotions. Sometimes people will feel upset when remembering the experience but this is not unusual. Remember if you need anyone to talk to please go to the links on my website for help. [feelwrite.org.uk](http://feelwrite.org.uk)

#### **INSTRUCTIONS BEFORE YOU START WRITING (Group 2)**

When we experience something like birth it has the ability to affect many parts of our lives, and sometimes in unexpected ways. This study provides an opportunity for women who have given birth for the first time to express, through writing, their thoughts and emotions about their birth experience. The study aims to investigate the effect of such writing on well being.

You need to write three times over the next week about issues surrounding your birth experience. Recent research has found that writing about such things can be useful for you. In all you will only need to set aside about 15 minutes three times in the next week. It may seem difficult at first but it may be very helpful for you. Please give it a go. These writing sessions are for you to express yourself. What you write will remain private.

A month after your baby has been born I will send you a link to a page on Survey Monkey which has instructions about what to write and how much to write. We have found for most people this is about 200 to 500 words within 15 minutes. Don't worry if you write less than this or more as the specific amount of words is not important but just that you try to write for 15 minutes please be strict with yourself about the timing. You do not need to worry about writing style or grammar, just allow your words to flow how you want.

Survey Monkey is a well respected method of running surveys and questionnaires, it is secure and confidential so you will be anonymous and your data will not be accessible by anyone other than me. If you would like to take a look at Survey Monkey before you start here is the link [www.surveymonkey.com](http://www.surveymonkey.com)

### First writing session

In this session I would like you to write about your deepest emotions and thoughts about your birth experience. Here are some pointers to get you started.

- Do you think the experience has affected your view of yourself in the past/present/future?
- Have there been any ways in which you have been able to make sense of your birthing experience? Please describe your thoughts about this.
- Have you been able to see any benefits from the birth experience? Please write any benefits you have found
- You could say whether this has linked with any other things in your life, eg childhood, upbringing, friends' experiences.
- Has the experience affected your relationship with those around you such as your partner or baby?

**(I have removed the following questions " Has the experience affected your dreams?", "Have you experienced any recurring thoughts?.")**

You can write about the same event for all of the time or about related things as they come to your mind. However, please try to be as honest as possible with yourself. Try to let go and explore your very deepest emotions and thoughts.

### Thanks

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. This task inevitably brings up thoughts and emotions. The first session is always the most difficult. Sometimes people will feel upset when remembering the experience but this is not unusual. Remember if you need anyone to talk to please go to the links on my website for help.

[feelwrite.org.uk](http://feelwrite.org.uk)

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Version 4.14.3.11



### **Second writing session**

In the first writing session you explored your thoughts and feelings about your birth experience. This time will be basically the same but now you need to really let go and write about all your memories of the event. Try to examine how this experience has affected your life. Here are some pointers to get you started

- Have your thoughts feelings or memories about the experience linked with any previous experiences you have had?
- Have there been any ways in which you have been able to make sense of your birthing experience? Please describe your thoughts about this.
- Have you been able to see any benefits from your birth experience? Please write any benefits you have found
- Challenge the thoughts you have been having about the experience and provide evidence from your experiences for and against your thoughts.
- Other aspects which the first session brought up for you.  
(have removed "have you had any recurring thoughts about the experience")

You can write about the same event for all of the time or about related things as they come to your mind. However, please try to be as honest as possible with yourself. Try to let go and explore your very deepest emotions and thoughts.

### **Thanks**

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. This task inevitably brings up thoughts and emotions. Sometimes people will feel upset when remembering the experience but this is not unusual. Remember if you need anyone to talk to please go to the links on my website for help. [feelwrite.org.uk](http://feelwrite.org.uk)

### **Third Writing Session**

Over the last two sessions, you wrote about your thoughts and feelings about a very big event in your life. This time we will look at other aspects of these events. Please note that you are free to choose to write again the way you did in the first two sessions.

The event which you have been writing about has affected not just you, but everyone else around you. The way you think and talk to people about it may have changed. Whatever your experiences may have been, you will have learned from them.

Imagine that it is ten years on from now and you are looking back on what happened. How will you want to think about the event? What does it mean to you now and what do you think you will see as the most important part when you look back on it in ten years time. Is there any way you can make sense of what happened?

Please feel free to write about anything now which you have not previously included and still feel you wish to write. As this is the last day you may want to wrap everything up. **As you send this off try** to imagine that you are letting go of some of the painful experiences which you have written about.

Although it may have been hard for you to write over these days you may already have learned that by writing about your experiences you have organised your story better. Hopefully it also has showed you a way to get more control over your reactions and feelings; it is possible that some people may experience reactions due to the writing more over the next days than today. However you can write down your thoughts like this on your own at any time in the future and you can keep or get rid of what you write as you choose.

### **Thanks**

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. This task inevitably brings up thoughts and emotions. Sometimes people will feel upset when remembering the experience but this is not unusual. Remember if you need anyone to talk to please go to the links on my website for help. [feelwrite.org.uk](http://feelwrite.org.uk)

Protocol reference 10/H0203/47  
Version 4.14.3.11

### **INSTRUCTIONS BEFORE YOU START WRITING (Group 3)**

When we experience something like birth it has the ability to affect many parts of our lives, and sometimes in unexpected ways. This study provides an opportunity for women who have given birth for the first time to write about their daily routines following the birth of their baby.

You need to write three times over the next week about day to day activities you have been involved in since the birth of your baby. In all you will only need to set aside about 15 minutes three times in the next week. It may seem difficult at first but it may be very helpful for you. Please give it a go. These writing sessions are for you to express yourself. What you write will remain private.

A month after your baby has been born I will send you a link to a page on Survey Monkey which has instructions about what to write and how much to write. We have found for most people this is about 200 to 500 words within 15 minutes. Don't worry if you write less than this or more as the specific amount of words is not important but just that you try to write for 15 minutes please be strict with yourself about the timing. You do not need to worry about writing style or grammar, just allow your words to flow how you want.

Survey Monkey is a well respected method of running surveys and questionnaires, it is secure and confidential so you will be anonymous and your data will not be accessible by anyone other than me. If you would like to take a look at Survey Monkey before you start here is the link:  
[www.surveymonkey.com](http://www.surveymonkey.com)

### **First Writing Session**

Please spend approximately 15 minutes writing about how you spent your time yesterday. Try to be as objective as possible please don't include your emotions or opinions. However feel free to be as detailed as you wish. The most important thing is for you to describe your day as accurately and objectively as possible. Here are some ideas of what to include.

- What meals you had and when you had them
- How many times you needed to get up in the night for your baby
- Whether you gave your baby a bath and how you did it.
- Whether you went out and what you did when you were out
- Please describe how you cared for your baby yesterday
- Did you see any friends and family?
- Did you watch any TV, which shows and for how long?
- Did you use the computer, what for and for how long?

Please try to stick to the facts about the day don't include your thoughts and feelings about it. Please feel free to describe the events in as much detail as you can.

### **Thanks**

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. Remember if you need anyone to talk to please go to the links on my website for help. [feelwrite.org.uk](http://feelwrite.org.uk)

Protocol reference 10/H0203/47  
Version 4.14.3.11

### **Second Writing Session**

Please spend approximately 15 minutes writing about how you plan to spend your time today. Try to be as objective as possible please don't include your emotions or opinions. However feel free to be as detailed as you wish. The most important thing is for you to describe your day as accurately and objectively as possible. Here are some ideas of what to include.

- What meals you had and when you had them
- How many times you needed to get up in the night for your baby
- Whether you gave your baby a bath and how you did it.
- Whether you went out and what you did when you were out
- Please describe how you cared for your baby yesterday
- Did you see any friends and family?
- Did you watch any TV, which shows and for how long?
- Did you use the computer, what for and for how long?

Please try to stick to the facts about the day don't include your thoughts and feelings about it. Please feel free to describe the events in as much detail as you can.

### **Thanks**

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. Remember if you need anyone to talk to please go to the links on my website for help. [feelwrite.org.uk](http://feelwrite.org.uk)

Protocol reference 10/H0203/47  
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### **Third Writing Session**

Please spend approximately 15 minutes writing about how you will be spending your time over the next week. Try to be as objective as possible please don't include your emotions or opinions. However feel free to be as detailed as you wish. The most important thing is for you to describe your day as accurately and objectively as possible. Here are some ideas of what to include.

- What meals you had and when you had them
- How many times you needed to get up in the night for your baby
- Whether you gave your baby a bath and how you did it.
- Whether you went out and what you did when you were out
- Please describe how you cared for your baby yesterday
- Did you see any friends and family?
- Did you watch any TV, which shows and for how long?
- Did you use the computer, what for and for how long?

Please try to stick to the facts about the day don't include your thoughts and feelings about it. Please feel free to describe the events in as much detail as you can.

### **Thanks**

Many thanks for everything you have written today. We really appreciate that this may have been quite a hard thing to do. Remember if you need anyone to talk to please go to the links on my website for help. [feelwrite.org.uk](http://feelwrite.org.uk)

## Appendix xii. Portion of Interview (Donna) with Thematic Codes

|    |  |               |
|----|--|---------------|
| 01 | S: Um so really the first thing is just to go back to your birth         |               |
| 02 | experience (D laughs) and just tell me a little bit about how you felt   |               |
| 03 | about it   |               |
| 04 | D: (draws breath inwards) if it had been my first child I probably       |               |
| 05 | wouldn't have wanted to go back for another one. It was lucky it was     | Ex            |
| 06 | my ..fourth. it was the most horrendous labour I've ever come across     | H, Do, Lc, Mc |
| 07 | and that wasn't down to me that was down to the staff so... no I didn't  |               |
| 08 | enjoy it at all.   |               |
| 09 | S: Would you mind just explaining what happened?                         |               |
| 10 | D: umm I still use them occasionally,(referring to something else in     |               |
| 11 | the room- crutches ) I've got a herniated disc in my back which means    | Co            |
| 12 | that if I get into a certain position all the nerves lock up and it's    |               |
| 13 | exceptionally painful so I had that against me before we went in there   | Pn            |
| 14 | plus the fact that ummm my longest established labour was 45             | Hi            |
| 15 | minutes  |               |
| 16 | S: wow   |               |
| 17 | D: so you've got an exceptionally bad back so I got wheeled into the     | Pn, Co        |
| 18 | room and I had to use crutches and be half lifted onto the bed. Ahhh     |               |
| 19 | and then the fact that as soon as I knew that my waters had broken I     |               |
| 20 | knew that she 'd be born in 15 minutes so I've then got some midwife     | Hi, A         |
| 21 | trying to stick (gets angry at this point as she is remembering) some    | Fr            |
| 22 | stupid heartbeat thing on her head and I said "why are you doing         | In            |
| 23 | that?" "Well so you can get up and walk around" " I can't even stand     | L, Ww         |
| 24 | want makes you think I'm going to walk around .." "well I think" " Well  |               |
| 25 | I don't " so she carried on doing that even though I didn't want it      |               |
| 26 | S :Ohhhh   |               |
| 27 | (The following passage is all recalled very animatedly apart from the    |               |
| 28 | last sentence)   |               |
| 29 | D:Ummm so that happened and she then she broke my waters then            |               |
| 30 | tried to put the heart beat thing which she did a couple of times and    |               |
| 31 | then she went over to go and make her notes and I said " the baby's      |               |
| 32 | coming now " literally that quickly ....ummmm (imitating midwife "       |               |
| 33 | yes yes yes ") " no the baby's coming now now now and de duh de          | L, A          |
| 34 | duh de duh so in the end I ended up swearing (what part of f...F...f...  |               |
| 35 | crowning don't you understand !) and the student midwife basically       |               |
| 36 | delivered the baby and that was it...um so but she'd moved me onto       |               |
| 37 | my side in between as well so I couldn't move, because I couldn't at     |               |
| 38 | the time because of being pregnant unless someone actually helped        | Us, U         |
| 39 | me move over...so she left me stuck on my side exceptionally             | U, Pn         |
| 40 | uncomfortable ummm with my friend in the room with absolutely            |               |
| 41 | nothing covering me from the waist down. I wasn't offered a sheet or     | Vu, Dg        |
| 42 | anything so I've got to say it was the most undignified painful horrific | Pn, H         |
| 43 | 15 minutes of my life. With some stuck up bitch going " yes yes yes      | A             |
| 44 | yes " So yes if she'd even bothered to read my notes and she should      | L, Mc, No     |
| 45 | have had a paediatrician in the room because I was a high dose           | Co            |
| 46 | Tramadol user . So the registrar and the consultant said "no we need a   |               |
| 47 | doctor in the room for when that baby's born because it will probably    | Re            |

|    |  |            |
|----|--|------------|
| 48 | have respiratory problems". She didn't bother with that either. She        | Wb         |
| 49 | left the delivery of my baby to a student and still left me in a position  | U          |
| 50 | that I couldn't get out of ...on the bed on my side like that, all         | Vu, Dg     |
| 51 | completely exposed. So no we didn't have a very nice birth (laughs         | Do         |
| 52 | ).....But it was very quick  | MI         |
| 53 | S :Well that was one advantage anyway                                      |            |
| 54 | D:yeh  |            |
| 55 | S :Did you say anything to them afterwards did you ....                    |            |
| 56 | D: umm there was another lady who was there she had longer hair            | Re         |
| 57 | she came round and asked me some bits ....ummmm because she said           |            |
| 58 | to me " oh how was the skin to skin" and I said " oh I didn't get any " "  |            |
| 59 | What do you mean you didn't get any ? " I didn't get any because the       | Do, Mc, Bc |
| 60 | student midwife took 45 minutes to weigh my baby by which time it          |            |
| 61 | was freezing so they clothed her   |            |
| 62 | S :ohhh (sounding sad)   |            |
| 63 | D: So we didn't get that either ....so yes...                              | Do         |
| 64 | S: and did you did you talk about the midwife to any supervisor of         |            |
| 65 | midwives or anything like that?  |            |
| 66 | D: ummm someone put something into the notes somewhere umm                 | No         |
| 67 | and someone went and got some notes but to be honest with you I            |            |
| 68 | was so uncomfortable because of my back before and afterwards I            | Pn         |
| 69 | mean I was trying to hobble up and down the ward on a set of               |            |
| 70 | crutches and that really wasn't working umm I still use them now but I     |            |
| 71 | did need to take more pain killers which was quite cool, but uhhh no I     |            |
| 72 | didn't really say an awful lot. If I'd said anything to her at the time it | Ut, V      |
| 73 | wouldn't really have been very polite.                                     | A          |
| 74 | S: Do you think you might, you know discuss it with anyone at the          |            |
| 75 | hospital about how you were treated?                                       |            |
| 76 | D:To be honest with you I don't really see the point because if that's     | Rg         |
| 77 | the way that she is that's the way that she is. She was wrong in what      | Cd         |
| 78 | she did, she was wrong in not listening to me, she was wrong in not        | L, Lc, Mc  |
| 79 | reading my notes before I came up or even after I came into the room       |            |
| 80 | . She did quite a few things wrong and she was very wrong to go and        | Cd         |
| 81 | give a baby who was supposed to be checked over by a paediatrician         |            |
| 82 | to a student..... to be honest with you wrong, wrong, wrong, wrong         | Cd, A      |
| 83 | and wrong ...basically so ....so if she'd even bothered to read any of     | L, Us      |
| 84 | the notes she would have seen that my longest labour was 45                | No, Lc, Mc |
| 85 | minutes.   |            |
| 86 | S :yeh   |            |
| 87 | D:So she didn't bother   | At         |
| 88 | S :Yeh they tend to get quicker with subsequent ones                       |            |
| 89 | D: From her breaking my waters to delivering the placenta is recorded      |            |
| 90 | as 15 minutes  |            |
| 91 | S: That's really quick!  |            |
| 92 | D: yeh (softly) ....so yeh it only took 2 contractions after she was       |            |
| 93 | ....apparently I have a very stretchy cervix ....so yeh as soon as she     |            |
| 94 | broke the waters that was it the baby just came straight out ...so yeh     |            |
| 95 | which I could have told her...which I was trying to tell her but she       | L          |
| 96 | wasn't listening.  |            |
| 97 | S So you just really felt that she wasn't interested really ...she wasn't  |            |
| 98 | listening , she wasn't ...   |            |



|     |  |            |
|-----|--|------------|
| 99  | D: She didn't even (can't hear this bit) get her gloves on to be honest    |            |
| 100 | with you if she'd delivered her without gloves and umm yeh because         | L, Lc      |
| 101 | yeh she just wasn't listening. she was stood there "ehhhewehhhh            |            |
| 102 | yes yes we know the baby's coming ....yes we know " yes so I did           |            |
| 103 | swear at her bless (laughs) yeh but no if that had been a first birth, if  | A, Ml, Ex  |
| 104 | that had been my first one I wouldn't have even I probably wouldn't        |            |
| 105 | have wanted to go back again.  |            |
| 106 | S :Right   |            |
| 107 | D: to be honest with you ummm  |            |
| 108 | S:Umm and have you sort of felt differently over time now a bit of         |            |
| 109 | time has passed have you felt differently about it or....                  |            |
| 110 | D: No I'm still just as fuming whenever I think about it (laughs loudly )  | A          |
| 111 | to be honest with you uhhh yeh   |            |
| 112 | S :and is it mainly your anger and hurt that was your primary emotion      |            |
| 113 | at that time   |            |
| 114 | D: Ummm ..... no it was the frustration of actually feeling completely     | Fr, He, De |
| 115 | helpless and defenceless because she insisted on putting me ...I was       |            |
| 116 | lying on my back sort of propped up ...she insisted on forcing me to       | Oe, U, Pr  |
| 117 | turn on my side. I didn't even have a chance to move on my side she        |            |
| 118 | pushed me into a position on my side which meant that because of           |            |
| 119 | the way she put my back I could not physically move ...ummm so she         | U, Pp, Ps  |
| 120 | had me pretty much half paralysed there. I had no way of moving and        | U          |
| 121 | I said to her I probably swore I think because ummm yeh apparently         | A          |
| 122 | " yes I've had women who've got bad backs " which was her attitude "       |            |
| 123 | yes I've seen it all before " " yes you've got a bad back but I don't care | L          |
| 124 | " (D voicing what she thinks the midwife is really saying) " your baby's   |            |
| 125 | heart beat dropped " " Yes but you could have asked me before you          | Wb, L, Cn  |
| 126 | just moved me and now I can't move " (What she was thinking at the         |            |
| 127 | time but may not have actually said ) " yes well the baby's heart beats    |            |
| 128 | better...." (draws in breath ) "you're freaking out the mother here at     | Wb, F      |
| 129 | the same time" so yeh....  |            |
| 130 | S: so you sort of felt that all control was just...                        |            |
| 131 | D: I had no I had no control in that room whatsoever. I mean               | Cn         |
| 132 | compared to Jessica who's 4 and a half now the midwife and I actually      |            |
| 133 | jokingly delivered her together. She was a very pleasant birth umm         | Pb         |
| 134 | and I said to her beforehand I said "I bet you don't even get a second     |            |
| 135 | midwife in the room" She said" Yeh we will we will "She delivered the      | Cb, Re     |
| 136 | baby and I picked her up and she carried on doing it. It was just          |            |
| 137 | between the two of us. That was actually fun it was pleasant it was a      | Pb, Po     |
| 138 | nice experience that 's how childbirth should actually manage to be        |            |
| 139 | and if they are supposed to get easier as you go along my last one         |            |
| 140 | should have been just has pleasant regardless of whether I had a bad       | Do         |
| 141 | back or not .  |            |
| 142 | S: Ummm  |            |
| 143 | D: But she should have actually asked me how I was feeling rather          | Mc, Lc     |
| 144 | than put me into a position where I couldn't move. I couldn't move         | U, Cn, Ps  |
| 145 | that leg , I couldn't move that leg I couldn't lift myself up, I couldn't  |            |
| 146 | get myself into a more comfortable position . I was literally half         |            |
| 147 | stranded on my side like a beached whale all exposed; no not nice at       | Vu, Dg     |
| 148 | all .  |            |
| 149 | S :so you felt vulnerable because of that as well                          |            |

|     |   |           |
|-----|---|-----------|
| 150 | D: Yeh because you couldn't do anything. Even after she was born          | Vu, U     |
| 151 | they didn't even help me move back so I was there kind of like half       |           |
| 152 | hoisting myself up the bed to try and get back into a position            | Pp        |
| 153 | absolutely didn't give a crap basically ...so...yeh...so she was she was  | A         |
| 154 | irresponsible she was meant to be an experienced midwife and was          | Lc        |
| 155 | irresponsible not to read the notes if she thought she was coming in      | No        |
| 156 | and if she had a student she should have read the notes. Basically        | Lc, Mc    |
| 157 | because I was 'older' also I had been high risk , fast labours and was    | Hi        |
| 158 | supposed to have a paediatrician present and she completely ignored       | L, Ig     |
| 159 | the whole lot and just went " yeahhhhh seen loads of you " and            |           |
| 160 | carried on  |           |
| 161 | S: Ummm   |           |
| 162 | D: So umm as it was touch wood nothing actually went wrong but it         |           |
| 163 | could have done   |           |
| 164 | S : And do you feel I know I sort of asked you this whether things have   |           |
| 165 | changed over time but ....it's obviously not as raw now but are you       |           |
| 166 | feeling a bit better than you were...do you think?                        |           |
| 167 | D: Better in what respect?  |           |
| 168 | S: Well...  |           |
| 169 | D: Better when I think about when I actually had her?                     |           |
| 170 | S : well just on a daily basis do you find that that keeps coming back to |           |
| 171 | you or do you feel that you are able to get on with things now ?or is it  |           |
| 172 | still affecting you?  |           |
| 173 | D: Depends on what I'm doing and how much time I've got .....really       | Bs        |
| 174 | I've got four children in total so yeh it's a very busy household we've   |           |
| 175 | had a very busy 6 week holiday (laughs) ummm I don't often get many       |           |
| 176 | quiet moments like this umm but it's in the quiet moment s that you       |           |
| 177 | actually then choose to reflect umm so the more quiet moment s the        | Th        |
| 178 | more reflecting you do and then the more it will annoy you et cetera      | An        |
| 179 | ummm but there's not a massive lot I can do about it and getting her      | Ps, U, Rg |
| 180 | into trouble will absolutely solve nothing . The only thing which I       | P         |
| 181 | would like is the fact that she should learn to listen to her patients    | L         |
| 182 | S :Ummm   |           |
| 183 | D: It doesn't matter how many babies she helped bring into this world     |           |
| 184 | if she's lost her ability to actually listen to the patient               | L         |
| 185 | S: yeh  |           |
| 186 | D: because the primary patient in that room's actually the mother, not    |           |
| 187 | the baby ...ummm well then she shouldn't be in that room. ....really      | Cs        |
| 188 | ...so ...yeah I mean there was another lady who was in hospital she       |           |
| 189 | was induced if she'd got that midwife she would be in absolute pieces     |           |
| 190 | because she struggled from the second they actually gave her a            |           |
| 191 | pessary to induce her   |           |
| 192 | S : yeh   |           |
| 193 | D: (laughing) I've never heard such a vocal person in my entire life -    |           |
| 194 | she got her first contractions ....so yeh ...no ...yeh I think she would  | Cs        |
| 195 | put someone off for life. I..I wouldn't want to go through another        |           |
| 196 | amount of time like that however long or short it lasted                  | Ex        |
| 197 | S: Right  |           |
| 198 | D: yeh so yeh   |           |
| 199 | S : Do you think as time has gone on from the birth itself has anything   |           |
| 200 | helped you to feel better? Or got in the way of it I mean I know that     |           |

|     |  |           |
|-----|--|-----------|
| 200 | you've thought about things when you've had some quiet moments             |           |
| 201 | but have there been things where you have thought this is a helpful        |           |
| 202 | thing , this is helping me to feel better now?                             |           |
| 203 | D: (3-4 second pause) Not particularly                                     |           |
| 204 | S: So really it's still quite intense                                      |           |
| 205 | D: it is but I'm also ...I'm a very practical very logical person I        | Ra        |
| 206 | remember going to my GP when Jessica was young I think she was             |           |
| 207 | about a year old, I'd shortly gone back to work (and I was working         | Ti        |
| 208 | quite a few hours) and I went in to him and I said I'm tired and I've got  | Pp        |
| 209 | headaches. So he said " right you've got three children now and you're     |           |
| 210 | working and you're on your own and you've got a dog and you're             |           |
| 211 | doing this" and he went "you're stressed " he said " you've got two        | S         |
| 212 | options deal with it or get rid of some of it" " oh ok " " I'm not doling  |           |
| 213 | you out anti depressants if you're feeling down and you're feeling up "    | Re        |
| 214 | he said " go home analyse it and go and deal with it" "and if you can't    | Ra, Di    |
| 215 | cope with it get rid of the dog or give up work" "oh ok I'll go and deal   | Di        |
| 216 | with it shall I" umm that's how I've always been ever since . I've got so  |           |
| 217 | many friends who umm take antidepressants because the minute               | Cs        |
| 218 | they feel down or the minute it all feels on top of themselves " oh I'll   |           |
| 219 | go and take a pill" " Well no look at your life and look at what you can   | Rn        |
| 220 | fix and what you can't fix and fix what you can and learn to cope and      | Cp, U     |
| 221 | deal with and accept what you can't fix" which is what I do . I can't      | Ac, U     |
| 222 | take back that day I can't fix it I can't remedy it umm the only thing     | Ra, P, Rs |
| 223 | which I wouldn't want to have happen is a repeat experience for            | Cs, U     |
| 224 | someone else ummm but I can't fix it.                                      |           |
| 225 | S: Ummm  |           |
| 226 | D: So I either accept it or I let it annoy me. So the majority of the time | Ac, An    |
| 227 | I accept it. If I choose to vocalise and talk about it yes it will bug the | Ac, T     |
| 228 | hell out of me but I can't fix it. It's there it's a day it's a time that  | Rg        |
| 229 | happened and it doesn't matter what I do now whether I'm happy             |           |
| 230 | about it sad about it angry about it it's not gonna change what            | Rg        |
| 231 | actually happened that day . So there's not a great deal you can           | U         |
| 232 | actually do with regards to it ummm and there's nothing that will          | Ut        |
| 233 | actually make me feel better or worse really.                              |           |
| 234 | S: So when I umm asked you to write after you'd been identified as         |           |
| 235 | having some symptoms of post traumatic stress , how did that, did          |           |
| 236 | you think about doing that or you obviously you didn't write but how       |           |
| 237 | D: umm no I don't really do writing  |           |
| 238 | S: ok  |           |
| 239 | D: Because I'm always about 3 sentences ahead of what I can actually       | Dw        |
| 240 | type , and I can type quite quickly the breaks always going there there    |           |
| 241 | there and I've forgotten what I'm writing there but if I actually wrote    |           |
| 242 | something and you actually wanted to read it it would make no sense        |           |
| 243 | whatsoever   |           |
| 244 | because I would be galloping and galloping and then I would go back        |           |
| 245 | and edit it so that it looked nice so it would be a waste of time me       | Te        |
| 246 | writing it which is why I didn't write (laughs)                            |           |
| 247 | S : Ok and have you done other things have you sort of spoken to           |           |
| 248 | people about...you know just friends or family about your experience       |           |
| 249 | which may have perhaps helped you to feel better about it                  |           |
| 250 | D: umm I chat with Gemma who was actually with me this is another          | T, Fi, F  |

|     |   |  |
|-----|---|--|
| 251 | mum (long pause) ummm but I don't really speak to her that much |  |
|-----|---|--|

### Appendix xiii. Portion of Interview (Becky) with Thematic Codes

Background: In participant's home young baby present who is making noise (teething) mum has already told her story but the recorder wasn't on so have asked her to repeat as much as she can.

|    |  |        |
|----|--|--------|
| 01 | SP: Ok so I'm just going to start again. So I just wanted to ask you           |        |
| 02 | about the process of the writing how easy the writing was to do?               |        |
| 03 | B: So I thought it was a little hard to get into but once I started writing    | Ih, Wr |
| 04 | I thought it was really easy to just like keep writing and I had one ahhh      | Es     |
| 05 | one of the sessions where I felt like I particularly wrote a lot where I       | La     |
| 06 | was able to just to just sit down and just keep going                          |        |
| 07 | (baby cries participant shushes baby)  |        |
| 08 | .....  |        |
| 09 | SP: So you found it easier on one of the sessions                              |        |
| 10 | B; yup.....yeh I think on one of the, one of the three I felt like I didn't    | Ds     |
| 11 | really know what to say...ummm and I kind of had to sit there and              |        |
| 12 | think for a while before I started writing. ... and then the other two I       | Th     |
| 13 | felt like I knew exactly what I was going to say before I even ....started     |        |
| 14 | anything. I could just start straight away and just like kept                  |        |
| 15 | writing.....and I probably ...the one where I wrote quite a lot, I             | C      |
| 16 | probably could have continued  |        |
| 17 | SP even more   |        |
| 18 | B: Even more, and I kind of "right I need to I need to (Laughs) stop           | St     |
| 19 | now. I've written quite a lot "  |        |
| 20 | SP: you didn't find that you ran out of space on the boxes                     |        |
| 21 | B; No  |        |
| 22 | SP Because when I designed them it was difficult to know what was              |        |
| 23 | enough space to give someone   |        |
| 24 | B: well I think what I did I'm pretty sure what I did is I wrote it in a       |        |
| 25 | word document anyway (upward inflection) and then cut and pasted               |        |
| 26 | it (SP says same ) Umm and I think I think that's why I remember               |        |
| 27 | reading in the prompt that said if you need more room.. and I thought          |        |
| 28 | I'll just do it this way and if I need more room I've already written it       |        |
| 29 | and I can just copy and paste.   |        |
| 30 | SP: that's a good idea (both laugh)  |        |
| 31 | B: And I have the tendency to have problems with technology as well            | Pt     |
| 32 | where I will (referring to the failed recording earlier) type something        |        |
| 33 | and then it all disappears   |        |
| 34 | SP: Ahhhh it is so annoying isn't it.  |        |
| 35 | B: So I was like "I'll do it this way and then it won't disappear if I've like | St     |
| 36 | clicked on the wrong box or something online" (jingle from toy being           |        |
| 37 | used to distract baby)I have a tendency to do that with my ummm                |        |
| 38 | reports ( B is a school teacher which had already been discussed in the        |        |
| 39 | previous non- recording session ) for school                                   |        |
| 40 | SP: oh no  |        |

|    |   |           |
|----|---|-----------|
| 41 | B: and if you type it just straight into the system then it will lose       |           |
| 42 | everything you've done so we all, have all gotten into the habit of         |           |
| 43 | doing it in word and then copying and paste cos                             |           |
| 44 | SP Yes  |           |
| 45 | B; Then you know it's not gonna .. if it disappears from one of the         |           |
| 46 | places you know you still have it backed up somewhere else.                 |           |
| 47 | SP: yes you don't want to lose things like that do you, and do all the      |           |
| 48 | work again  |           |
| 49 | B; (Nope over SP)   |           |
| 50 | SP And so the next question was has writing about the trauma helped         |           |
| 51 | you to understand it better?  |           |
| 52 | B: Yeh I think that it helped me to kind of organise my thoughts on         | O         |
| 53 | stuff....umm and one of the things I said before was that it helped me      |           |
| 54 | to realise that I was making some excuses for stuff (S ummm in              | M         |
| 55 | background) for what for both what I'd done but also what other             | As        |
| 56 | people around me had done and the situation and just kind of think          | Ao, Th    |
| 57 | more about it and think about ...what other people could have done          |           |
| 58 | differently as well that would have been helpful and I think it's gonna     |           |
| 59 | help this time (B revealed that she was pregnant again at the start of      | F         |
| 60 | the session ) around as well because I'll be able to say 'It will be really | V         |
| 61 | helpful if you do ....these things' and like to tell my husband going in    | Pa        |
| 62 | to it 'right it will be really helpful for me if you can , you know say     | V, Pl     |
| 63 | these things when I can't or whatever'. Yeh I think this time around I      |           |
| 64 | would have a birth plan and I know that it doesn't always ... I was very    | B         |
| 65 | relaxed about it last time but I felt like they didn't really listen to me; | L         |
| 66 | and that sort of stuff whereas if I have it written down at least I can     |           |
| 67 | say 'I've written this down and I've told you..'                            | V         |
| 68 | SP; yes ..yes...so was that a decision to not make a birth plan or did it   |           |
| 69 | just sort of turn out that way?   |           |
| 70 | B; Well the only things that I really ....cared about ...was I really       | E         |
| 71 | wanted a water birth, which I didn't end up having and I'd written that     |           |
| 72 | down in my notes but I didn't really verbalise it at the time (upward       | N, V      |
| 73 | inflection) and in retrospect I should have done and I probably would       | Wc        |
| 74 | have got it had I ...you know said something about it ....ummm....and       |           |
| 75 | the other thing was about the medication and I did again write in my        |           |
| 76 | notes what I did and didn't want kind of thing (upward inflection )         | Pl, V     |
| 77 | SP; Did you , were you aware of them looking at the notes?                  |           |
| 78 | B; (baby is crying and fretful) Well they took them so one would think      |           |
| 79 | that they looked at them but I really have no idea if they did or not .     |           |
| 80 | ....ummm but I I feel like the reason that I did end up having the          | Do        |
| 81 | diamorphine is because she kept asking and she kept asking and I            | Pr        |
| 82 | finally just said 'yes'   |           |
| 83 | SP you caved in   |           |
| 84 | B; yup  |           |
| 85 | SP Or you feel like you caved in  |           |
| 86 | B: I feel like I caved in because I was quite sure. Especially like in      | G         |
| 87 | classes we had gone over all the pros and cons (baby is fretful ) of        |           |
| 88 | everything I know that with medications that tend to make you sleepy        |           |
| 89 | and that kind of stuff it does have that effect on me and ....I knew that   | E, Do, Ch |
| 90 | I didn't want that  |           |
| 91 | ...and ....but I gave in because she just kept...actually she was really    | G         |

|     |  |        |
|-----|--|--------|
| 92  | annoying anyway (both laugh) she just kept asking and asking and I           | Pr     |
| 93  | almost felt like I was doing it to get her to go away                        | Cn, Ch |
| 94  | SP; yes yes  |        |
| 95  | B: which is a horrible reason to have medication but ummm I feel that        | Pl     |
| 96  | had I had that written down to begin with or had I talked with my            | Pa, Tp |
| 97  | husband more before hand and said 'right I really don't want...              |        |
| 98  | SP; this is what....   |        |
| 99  | B: you need to advocate that "I don't want this" . ...but I                  |        |
| 100 | never.....Umm really ...we were going to talk about it but because she       | Oe     |
| 101 | was early we didn't really get to the you know ...we're going to talk        |        |
| 102 | about what to expect when we go in kind of thing. ....He was very            | E, Pa  |
| 103 | much like 'oh it's just whatever you want' which was supportive but at       |        |
| 104 | the time I wasn't really having a good time vocalising my wants              | V, Ch  |
| 105 | SP no not while you were in labour no  |        |
| 106 | B; and he didn't really what it was because he hadn't really cared you       | L      |
| 107 | know it was 'whatever you want'  |        |
| 108 | SP; yeh yeh  |        |
| 109 | B; the thing is we hadn't really gotten to talk about it (baby cries )       | Tp     |
| 110 | SP So what about the relationship with your midwife, do you think            |        |
| 111 | that that really impacted upon how you felt afterwards?                      |        |
| 112 | B (baby cries ) I really didn't like the one that I had up until right       | I      |
| 113 | before she was born and then they switched shifts (baby crying ) and         |        |
| 114 | then the one that I had who actually delivered me was wonderful              | Re     |
| 115 | ...ummm I think that had I had a different one I wouldn't have had           |        |
| 116 | medication because I don't think I would have had that ...ummm kind          | Lc     |
| 117 | of feeling about her and the one that actually delivered me I think          |        |
| 118 | wouldn't have pushed it the same way that that the first one did (baby       |        |
| 119 | cries ) umm but I saw sort of a lot of midwives (baby cries ) while I was    | Me     |
| 120 | in the hospital and some of them were (baby fretful) amazing                 | Re     |
| 121 | SP; yes  |        |
| 122 | B; And some of them really not and (shushes baby talks to baby) I            | I      |
| 123 | think I think that that definitely did had an impact because the one         |        |
| 124 | the last one that I had just literally spent the whole day with me and       |        |
| 125 | you know sat down and helped me sort out the issues with her                 | Re     |
| 126 | feeding and stuff . If I'd had her the first day I was in the hospital I     | Do     |
| 127 | would have I would have gone home much earlier. But (baby cries ) it         |        |
| 128 | is I think it is hard quite hard here to have that consistency of care       | Mc     |
| 129 | SP; ummm   |        |
| 130 | B: because they are on a rotation so you don't have one person the           |        |
| 131 | whole time and when somebody new comes on they see in writing                | L, Lc  |
| 132 | what your notes are but that doesn't necessarily translate to what the       | Mc     |
| 133 | person's actually gone through. (baby cries ) (can't make out next bit )     | R      |
| 134 | in my notes "she's very upset about having to stay here" kind of thing       | Ws, Ts |
| 135 | but I don't think that they ever understood how upset I was and that         | Us     |
| 136 | really had I gone home it would have been so much better (baby               | V, Ts  |
| 137 | fretful) I think it would have been better for her too (gestures to          | Wb     |
| 138 | baby) ( baby cries ) because I would have trusted myself more at             | Ts     |
| 139 | home (baby cries)  |        |
| 140 | SP: yeh (baby cries B shushes ) Yes you mentioned earlier about              |        |
| 141 | trusting your instincts  |        |
| 142 | B; yeh ...yeh I felt like I was trying to give the right answers while I was | G      |

|     |  |        |
|-----|--|--------|
| 143 | there and like they had me keep a log of you know all her dirty              |        |
| 144 | nappies and wet nappies and how much she was eating and how                  |        |
| 145 | often for how long and all that and I kind of felt like I was trying to get  | G, Cn  |
| 146 | the answers right so that ...so that they'd let us go home (Laughs)          |        |
| 147 | SP; like you were being tested?  |        |
| 148 | B; Yeh..well...and they told me once they finally let me start giving her    | Cn     |
| 149 | some formula too they were telling me "oh she should have this much          |        |
| 150 | formula" and I could tell that she was still hungry afterwards but I only    | G      |
| 151 | gave her that much because they told me this is how much you should          | Ts     |
| 152 | give her ....and.....so that was what I did and I felt if I'd been at home I | Gu, As |
| 153 | would have just ...given her more and a couple times I did give her a        |        |
| 154 | little bit more but I felt like I was sneaking my baby food (laughs baby     |        |
| 155 | cries) ..."it's ridiculous if she's hungry she should be eating!"            |        |
| 156 | SP; and do you feel the writing has helped you to understand it              |        |
| 157 | better?  |        |
| 158 | B; yeh I think that it helped me you know organise my thoughts and so        | O      |
| 159 | that I could look at the issues (baby fretful ) that I dealt with better     | Di     |
| 160 | and also umm umm (dangling toy for baby) just to think about how             | Th, W  |
| 161 | everything impacted from the beginning to the end to think about it          |        |
| 162 | all together as a series of events as opposed to just like different         |        |
| 163 | pieces   |        |
| 164 | SP and do you think it's affected how you see yourself?                      |        |
| 165 | B; I think ....I think not necessarily how I see myself but how I see        | Id     |
| 166 | myself in that situation ummm...because I think I felt like I was taking     |        |
| 167 | quite a lot of responsibility for everything was my fault and I think that   | Rn, Gu |
| 168 | it helped me to kind of realise that while there were things I could         | As     |
| 169 | have done differently there were things other people could have done         | Ao     |
| 170 | differently as well ummm and so you know helping to see that it              |        |
| 171 | wasn't it wasn't just me who was involved in this situation there were       |        |
| 172 | lots of other people around that had an impact on it .                       | W      |
| 173 | SP; and you said earlier that it has helped you to make sense of things      |        |
| 174 | really   |        |
| 175 | B; yep yep ...I think .....the writing about it and the looking back at it   |        |
| 176 | has helped me to kind of see everything that went on and how it              | W      |
| 177 | ...how it all fitted together and ...you know if the same thing were to      | Lf     |
| 178 | happen again what I would do differently and what I would do the             |        |
| 179 | same and things that I would specifically you know ask other people          | Tc     |
| 180 | to do as well.   |        |
| 181 | SP; yes and do you think the three times was good or....                     |        |
| 182 | B; I think that it was helpful to revisit it and like I said I think that I  | Th     |
| 183 | would have done that anyway I think that I mean in-between the               |        |
| 184 | sessions I did kind of look back (baby cries ) and think about it again      | Th     |
| 185 | but ummm ..so I think re-visiting definitely helped (baby cries ) I think    | Rs     |
| 186 | even twice would have been beneficial just any looking back at it at         |        |
| 187 | all...if you've just written it and then you kind of forget about it that    |        |
| 188 | would have been helpful but I think it's more helpful to then ... (baby      |        |
| 189 | cries ) go back and think about it again . The first time you write about    |        |
| 190 | it it's quite (baby cries) emotional; and then once you write about it       | Cw     |
| 191 | again you can ummmm almost feel a little more clear headed because           |        |
| 192 | you..you've gotten some of that out so that you can think about it a         | Rs     |
| 193 | little bit more critically and   |        |



|     |   |    |
|-----|---|----|
| 194 | SP;;ummm and you probably wrote slightly different things each time           |    |
| 195 | B; yeh ...yeh...  |    |
| 196 | Sp; And would it be something that you would recommend to other               |    |
| 197 | people?   |    |
| 198 | B; definitely I think that its (baby cries ) I think that it's really helpful |    |
| 199 | even if you haven't had a really hard time to just... the situation and       |    |
| 200 | it's a good way to organise your thoughts and especially something            | O  |
| 201 | that you are going to do more than once to to know how you're gonna           | Ft |
| 202 | deal with it in the future , to think about how you did in the past its'      |    |
| 203 | just helpful and then you can see your decisions and whether you              | Ch |
| 204 | think they were good ones or not and what you'd want different kind           | Rs |
| 205 | of thing  |    |
| 206 | SP; Well thank you .....  |    |

## Main Codes

|    |  |    |  |
|----|--|----|--|
| Ao | Actions taken by others  | Mc | Midwifery care/communication                           |
| As | Actions taken by self  | Me | Medical environment                                    |
| B  | Birth plan   | O  | Organisation of thoughts                               |
| C  | Continued writing a lot  | Oe | Feeling overtaken by events                            |
| Ch | Choice   | Pa | Partner  |
| Cn | Losing control of the situation                                | Pr | Feeling pressurised by health care professionals       |
| Cw | Writing again making feelings clearer                          |    |  |
| Di | Dealing with issues  | Pt | Problems with technology                               |
| Do | Disappointing outcome  | R  | Reminders of the event                                 |
| Ds | Didn't know what to say  | Re | Respect for certain health professionals               |
| E  | Expectations about the birth                                   | Rn | Taking responsibility for negative outcomes            |
| Es | Easy   | Rs | Resolution   |
| Ft | Looking to the future and how the experience impacts upon that | St | Self talk  |
| G  | Giving in /compliance in to pressure by health professionals   | Tc | Taking control of the situation                        |
| Gu | Feeling guilty about actions                                   | Th | Thinking about the situation, revisiting it            |
| I  | Initial disappointing contact with health professional         | Tp | Talking to partner                                     |
| Id | Identity   | Ts | Trusting self  |
| Ih | Initially hard   | Us | Not feeling understood                                 |
| L  | Not being listened to  | V  | verbalising wants needs and wishes                     |
| La | Large amount   | W  | Seeing the event as a whole                            |
| Lc | Lack of confidence in health professionals                     | Wc | Wishing she had communicated with health professionals |
| Lf | Looking to the future and how the experience impacts upon it   |    |  |
| M  | Making excuses for things                                      | Wr | Writing  |
|    |  | Ws | Worries about self                                     |

## Appendix xiv. Structural Analysis of Second Writing Sessions

| Line number  | Writing 2<br>Main protagonists=P<br>Initiating events=E<br>Complicating events/ factors=F<br>Action taken=A<br>Consequences of action=C<br>Repetition=R   |   |
|--|---|---|
| 01<br>02<br>03<br>04<br>05<br>06<br>07<br>08<br>09<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>63<br>64<br>65<br>66 | <p>Since the last writing session I have been thinking a lot about my birth experience and trying to pinpoint what it is exactly that I found so hard. The pain wasn't that bad, I felt like I coped well with that. My husband was with me and was as supportive as he could be (although I felt like he could have been more supportive afterwards while I was in the hospital still). So the main thing I can come up with is that I am disappointed with how it went; mainly I am disappointed in myself. You hear about a lot of women who have caesareans who feel like they are failures because they wanted a natural birth. I think I would have coped better had I needed one because I would have known there was nothing I could have done. Most of the regrets I have about Lucy's birth are things I could have prevented. I hate that I have regrets. I regret that I wasn't strong enough to stand up for what I wanted. Rationally I know that it's hard to make decisions while in labour, but I still feel like if I was able to cope with the pain I should have been able to speak up about what I wanted. I regret that I didn't write a better birth plan or go over the one I had in my notes. I really wanted a water birth and since I am now high risk that won't even be an option for any of my future births. I have missed out on my one opportunity for that and if I had just said something at the time I probably could have had it. I regret that I did not talk more with my husband beforehand about what I wanted. If I had he could have helped more with telling the midwife what I wanted. Most of all I regret that I gave in and had the diamorphine. This meant I had to lie down and couldn't be active anymore it also made me very sleepy. Due to this I missed out on a lot of what happened right after Lucy was born. Experiences that I can't get back. There are so many things I could have done differently to get the experience that I wanted and I regret that I didn't. I feel that ultimately I have no one but myself to blame for the things that didn't go how I wanted and I hate myself a bit for that. I feel like I failed myself because I could have had control over the situation and I didn't. In the end I have a beautiful healthy daughter so it did turn out for the best, but I still feel like a failure.</p> | <p>P1<br/>P1<br/>P1/F1<br/>P3<br/>F2<br/>P1/C1<br/>P1/C1<br/>Comparison<br/>stepping outside<br/>the story<br/>P1/C2/A1<br/>P1/A2<br/>P1/A2<br/>P1/A3<br/>P1/A4<br/><br/>P1/ C3<br/>P1/C2/A3<br/>P1/C2/P3/A3/R1<br/>R1<br/>P1/ C2/A5<br/>C4/ F3<br/>C5/C3/R1<br/><br/>P1/C2<br/>P1/C2<br/>P1/A6<br/>P1/A2/A7/R1<br/><br/>P1/A7/R1/ C6</p> |

### Codes Used

| Code | Description                           | Frequency |
|------|---------------------------------------|-----------|
| P1   | Narrator                              | 19        |
| P3   | Husband                               | 2         |
|      |                                       |           |
| F1   | Pain                                  | 1         |
| F2   | Support                               | 1         |
| F3   | Having diamorphine                    | 1         |
|      |                                       |           |
| A1   | Not able to prevent things            | 1         |
| A2   | Hating herself                        | 3         |
| A3   | Not able to speak up                  | 3         |
| A4   | Not able to write a better birth plan | 1         |
| A5   | Giving in to pressure                 | 1         |
| A6   | Blaming herself                       | 1         |
| A7   | Failing                               | 2         |
|      |                                       |           |
| C1   | Disappointed                          | 2         |
| C2   | Regrets                               | 6         |
| C3   | Missing out                           | 2         |
| C4   | Had to lie down                       | 1         |
| C5   | Sleepy                                | 1         |
| C6   | Healthy daughter                      | 1         |
| C7   |                                       |           |
|      |                                       |           |
| R1   | Failure and regret                    | 3         |

**Appendix xv. Structural Analysis of Third Writing Session**

| Line number  | Writing 3<br>Main protagonists=P<br>Initiating events=E<br>Complicating events/ factors=F<br>Action taken=A<br>Consequences of action=C<br>Repetition=R   |  |
|--|---|--|
| 01<br>02<br>03<br>04<br>05<br>06<br>07<br>08<br>09<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39 | <p>Through the last writing sessions I have realised that I feel responsible for all the problems I have had with my birth experience. In some cases I have made excuses for the behaviour of others and how I could have made the situation better. I think if I am really honest though I am disappointed with the behaviour of others and hopefully in admitting that it will help me to stop feeling like it was all my fault. In the last writing session I wrote mainly about how disappointed I was in myself and how I reacted. While that still remains true I know objectively that I need to stop being so hard on myself. I have no problem rationalising the behaviour of others but I am far more critical of myself. However, I still feel strongly about the way that others treated me during the process and in some ways it made me feel even worse about myself. I previously wrote about the way the midwives made me feel. I think one of the hardest things was the inconsistency of care; even through my pregnancy I saw three different midwives. Through my time in the hospital with the birth I saw so many different people that they ran out of room on my notes for their names and there are 18 spaces on the sheet. This made me need to repeat myself over and over. It was also hard to establish a relationship with the people looking after me. Had I had a smaller number of people looking after me I think I would have been able to resolve Lucy's feeding issues much sooner. Every time they came to speak with me about it and my husband was there I would tell him after they left how I really felt. I wish I had been able to be brave enough to communicate those feelings to the staff. I knew that Lucy was still hungry and not getting enough food, but doubted myself and every time I was asked about her feeding I felt like I was being judged and tried to say the right thing. In retrospect I should have just been completely honest with them. However, when I did try to be completely honest with them about how much I was struggling emotionally I felt like my feelings were completely dismissed. They wrote down in my notes that I was a bit weepy and upset with the situation, but I felt like they didn't help with it at all. In reality I spent nearly all my waking hours crying or feeling like crying. My husband also wasn't very helpful with this either. I needed (and still need) him to tell me I was doing a good job and that I was clearly doing all that I could. However, he seemed to</p> | <p>P1<br/>P1<br/>P1/C1<br/>P1/A1<br/>P1/C2/A2<br/>P1/C3<br/><br/>P1/C4<br/>Rationalising<br/>P1/ C5<br/>P1/C6<br/>A2<br/><br/>E1<br/><br/>C7<br/>E1<br/>C8<br/>Rationalising<br/><br/>A3<br/>C9<br/>P1/C10<br/>C11<br/>C12<br/>Rationalising<br/><br/>C13<br/>A4<br/>C14<br/>P1 F1<br/>P2/F2</p> |

|    |  |        |
|----|--|--------|
| 40 | <p>be too busy focusing on himself to give me the support I really needed. I don't think he was even aware he was doing it. During the birth and since then he keeps telling me what to do and not asking what I need. He tells me to sleep or sit down and if he asked he would realise that I really need my surroundings to be clean and to have some adult interaction more than I need to rest. While I was in the hospital I barely slept or ate because I was always either feeding Lucy, trying to settle her or using the breast pump. When they came to do my obs they would ask if I had eaten and most of the time I said no but I could tell they weren't really listening as they just said ok and went onto their next question. In a lot of ways I felt abandoned. Most of my friends and family live abroad and the friends I have here didn't bother to come visit me. They probably thought that I wouldn't want visitors, but I was feeling very isolated being stuck in the hospital. I felt like my husband didn't really want to be there and never came for the full visiting time. It was very surreal when I finally went home, coming out of the hospital and into the real world again. I felt like I had no concept of how much time had passed even though I knew it was 8 days. When my contractions first started I was alone and I felt very alone through the whole time I was in labour. My husband was asleep for a large part of it because he was tired. I told him it was ok for him to sleep, but really I wanted him to be awake and comforting me. When I was in labour at the hospital I felt like the midwife only came in when I was throwing up or to encourage me to have medication. Although I felt like she wasn't there much I was happy every time she left as I felt she was very critical and not very encouraging. I know that I am still struggling emotionally, but I have been hesitant to go into the doctor as I feel like everyone I have talked to about it says ok then dismisses it. I think I have learned a lot from my birth experience about myself, but I am still having trouble with how everything went and how it has affected me and my relationships as a result.</p> | P2/F2  |
| 41 |  | P2/A5  |
| 42 |  |        |
| 43 |  |        |
| 44 |  |        |
| 45 |  |        |
| 46 |  | P1/C15 |
| 47 |  | F3     |
| 48 |  | P3     |
| 49 |  |        |
| 50 |  | A6     |
| 51 |  | C16/P1 |
| 52 |  |        |
| 53 |  | P4/F4  |
| 54 |  |        |
| 55 | P2/C17   |        |
| 56 |  |        |
| 57 | Stepping back  |        |
| 58 |  |        |
| 59 | Repetition   |        |
| 60 | P1/F5  |        |
| 61 | P2/F5  |        |
| 62 |  |        |
| 63 | P1/C18   |        |
| 64 | P3/E2/C8   |        |
| 65 |  |        |
| 66 | P1/C8  |        |
| 67 | P3/A7  |        |
| 68 | P1/C19   |        |
| 69 |  |        |
| 70 | Rationalising  |        |
| 71 | P1/C20   |        |
| 72 | C21  |        |
| 73 |  |        |

### Codes Used

| Code | Description                            | Frequency |
|------|--|-----------|
| P1   | Narrator                               | 18        |
| P2   | Husband                                | 5         |
| P3   | Midwives during labour and postnatally | 3         |
|      |  |           |
| E1   | Inconsistency of care                  | 2         |
| E2   | The labour                             | 1         |
|      |  |           |
| F1   | Crying                                 | 1         |
| F2   | Lack of support from husband           | 2         |
| F3   | Problems breast feeding                | 1         |
| F4   | Lack of support from friends           | 1         |

|     |  |   |
|-----|--|---|
|     | and family   |   |
| F5  | Feeling alone  | 2 |
|     |  |   |
| A1  | Making excuses for others  | 1 |
| A2  | Disappointed with others and their treatment of her                | 2 |
| A3  | Complaining to husband but not staff                               | 1 |
| A4  | Staff documented she was weepy but didn't help                     | 1 |
| A5  | Husband tells her what to do rather than listening to her needs    | 1 |
| A6  | Staff didn't listen  | 1 |
| A7  | Midwife critical and unsupportive                                  | 1 |
|     |  |   |
| C1  | Feeling responsible for how she feels                              | 1 |
| C2  | Disappointment in others   | 1 |
| C3  | Admission to herself that others could be to blame                 | 1 |
| C4  | Disappointment in herself  | 1 |
| C5  | Realisation that she shouldn't blame herself                       | 1 |
| C6  | Critical of self   | 1 |
| C7  | Feeling she had to repeat herself because of inconsistency of care | 1 |
| C8  | Felt there was no relationship with the staff                      | 3 |
| C9  | Couldn't be truthful with staff                                    | 1 |
| C10 | Wishing she could have communicated more                           | 1 |
| C11 | Doubted her own judgment   | 1 |
| C12 | Felt staff were judging her  | 1 |
| C13 | Felt her feelings were dismissed                                   | 1 |
| C14 | Felt unsupported emotionally                                       | 1 |
| C15 | Slept and ate little   | 1 |
| C16 | Felt abandoned   | 1 |
| C17 | Felt unsupported by husband  | 1 |
| C18 | Wanted husband to be awake and supportive                          | 1 |
| C19 | Struggling emotionally   | 1 |
| C20 | Learned a lot from the birth experience                            | 1 |
| C21 | The experience has impacted her relationships                      | 1 |

## Appendix xvi. Analysis of Emotion Words and Cognitive Words

### Analysis of First Writing

| Line | Writing 1   | Emotion (e) or cognitive (c) word |
|------|---|-----------------------------------|
| 01   | Before the birth I had very few expectations, I wanted to try to use      |                                   |
| 02   | as little pain relief as possible and use the pool if it was available. I |                                   |
| 03   | wanted to go to Bracken, but I was recommended to go to labour            |                                   |
| 04   | ward as my BMI was right on the edge of the cut off point for being       |                                   |
| 05   | higher risk. When they recommended this they didn't tell me that if I     |                                   |
| 06   | wanted to go to Bracken I needed to be booked in in advance and           |                                   |
| 07   | so when I was ready to go to hospital and called into Bracken that's      |                                   |
| 08   | when I found out that I had no choice, but to go to labour ward.          | Found out (c)                     |
| 09   | When my labour started I was at home by myself as my husband              |                                   |
| 10   | was working overnight, it was about 8pm on the 11th of November.          |                                   |
| 11   | I decided not to call him to come home as I was coping fine and the       | Decided (c)                       |
| 12   | contractions were only about 30 seconds long and coming about             |                                   |
| 13   | every 5 minutes. This continued for about 5 hours then stopped.           |                                   |
| 14   | After about 14 hours my contractions started again and for a while        |                                   |
| 15   | they seemed to be about the same as the day before. I felt very           | Unsure (e)                        |
| 16   | unsure as to if I was actually in real labour or not, but was calm and    | Calm (e)                          |
| 17   | a bit excited. After 12 more hours my contractions seemed to be           | Excited (e)                       |
| 18   | more frequent and lasting for longer so I decided to phone the            | Decided (c)                       |
| 19   | hospital and wake my husband up. He is a very sound sleeper and           |                                   |
| 20   | it took me about 5 minutes of calling his name and shaking him to         |                                   |
| 21   | get him to wake up. I remember laughing and thinking the situation        | Funny(e)                          |
| 22   | was very funny. While he went out to clean the car I phoned the           | Thinking (c)                      |
| 23   | hospital and found out that I couldn't go into Bracken. I was very        | Found out (c)                     |
| 24   | disappointed by this and was feeling very uncertain of what I             | Disappointed (e)                  |
| 25   | needed to do. Labour ward told me not to come in until my waters          | Uncertain (e)                     |
| 26   | had broken or I was having trouble coping with the pain and               | Found (C)                         |
| 27   | needed something for it. I found this very unhelpful as I wanted to       |                                   |
| 28   | try to go without pain relief and just using my TENS machine and          | Crying (e)                        |
| 29   | then the pool. I started crying as soon as I got off the phone with       | Uncertain (e)                     |
| 30   | them and felt like I didn't know what to do. My husband was very          |                                   |
| 31   | supportive and told me he was happy to do whatever I needed.              |                                   |
| 32   | After about 2 more hours I decided I wanted to go in to see how far       | Decided (c)                       |
| 33   | along I was. I phoned back in and said I wanted to come in they           | Wanted                            |
| 34   | told me again about waiting til my waters broke or the pain was           |                                   |
| 35   | unbearable. Even though I wouldn't have classed the pain as               |                                   |
| 36   | unbearable I told them I was coming in. The midwife who saw my            |                                   |
| 37   | when I got in was very nice and she said she thought that I               |                                   |
| 38   | probably wasn't very far along, but she would check me and I could        |                                   |
| 39   | stay if I wanted to even if I wasn't in established labour. She was       |                                   |
| 40   | surprised to find that I was already 2 cm and I felt reassured that I     | Reassured(e)                      |
| 41   | was interpreting the signs correctly and labour had actually started.     | Interpreting (c)                  |
| 42   | When the shift changed and another midwife came on she                    |                                   |



|    |   |                   |
|----|---|-------------------|
| 43 | recommended that I go home. I was concerned about this as we              | Concerned(e)      |
| 44 | live at least 40 minutes away and in traffic it can be considerably       |                   |
| 45 | more. After we got home my husband went back to sleep and I               |                   |
| 46 | tried to sleep a bit, but couldn't. I kept getting in and out of the bath |                   |
| 47 | to try to help with the pain and using the TENS machine when I            | Lonely (e)        |
| 48 | wasn't in the bath. I felt very alone and unsure of what I should be      | Unsure (e)        |
| 49 | doing, but I let my husband sleep because he was tired and I              |                   |
| 50 | thought it was probably going to be a while longer and I wanted him       | Wanted (c)        |
| 51 | to be awake for when we were in the hospital. At about 2pm I              |                   |
| 52 | decided to go back in. I made my husband phone as I really didn't         | Decided (c)       |
| 53 | like talking to the people on labour ward as I felt like they were        | Insecure(e)       |
| 54 | telling me I didn't know what was happening well enough to judge          |                   |
| 55 | how far along I was. When we went back in we saw another                  |                   |
| 56 | midwife who I really didn't like. She kept telling me my contractions     |                   |
| 57 | weren't doing much and I wasn't in enough pain to be in                   |                   |
| 58 | established labour. She was shocked to find that I was 5 cm. I felt       |                   |
| 59 | like she wasn't very encouraging and didn't really ask what I             | Discouraged(e)    |
| 60 | wanted from my labour. I had written down in my notes about using         |                   |
| 61 | the pool and no pain medication, but I am sure she didn't look at         |                   |
| 62 | that. I was very emotional and felt like I wasn't really being listened   | Emotional (e)     |
| 63 | to so I didn't bring it up. After about 3 hours she checked me again      |                   |
| 64 | and as I was still 5 cm they decided to break my waters. After that       |                   |
| 65 | my contractions got much more intense and the midwife kept                |                   |
| 66 | offering me pain medication. After she had asked about 3 times I          |                   |
| 67 | gave in and said yes and let her give me diamorphine. Before the          |                   |
| 68 | birth I was sure that I didn't want this as I really didn't want to feel  |                   |
| 69 | sleepy, but the gas and air wasn't helping and I kept throwing up         |                   |
| 70 | even though they had given me injections to make me stop getting          |                   |
| 71 | sick. I was annoyed that she kept asking and felt like I ended up         | Annoyed (e)       |
| 72 | saying yes just so she would stop asking. In retrospect I wish I had      | Exasperated (e)   |
| 73 | been more firm and had told my husband in advance what I wanted           | Retrospect (c)    |
| 74 | so that he could have stood up for me. I was convinced before the         |                   |
| 75 | birth that I was going to be late so when she came 8 days early I         |                   |
| 76 | hadn't discussed everything with my husband. One of my friends            |                   |
| 77 | later told me that they had said in their birth plan not to offer them    |                   |
| 78 | medication unless they asked for it. I really wish I had done that as     |                   |
| 79 | I would have been fine, but in that amount of pain and not knowing        |                   |
| 80 | how long it would last and with someone telling me to have some I         |                   |
| 81 | wasn't thinking that clearly. It was less than 2 hours between my         |                   |
| 82 | waters breaking and Lucy being born. Since I had the                      |                   |
| 83 | medication so late I was very sleepy and had trouble keeping my           |                   |
| 84 | eyes open. Up until I was given the diamorphine I was walking             |                   |
| 85 | around and sitting on the ball, but as soon as I had it they made me      |                   |
| 86 | get in the bed as I couldn't stand any longer. I remember trying to       |                   |
| 87 | fight the feeling and stay standing, but I was swaying on my feet         |                   |
| 88 | and had to lay down. I felt like I had lost control at this point and     |                   |
| 89 | don't remember much of what happened next. The shift changed              |                   |
| 90 | again and I had a different midwife actually deliver me. She was          |                   |
| 91 | wonderful and very encouraging and let me do what felt right to me.       |                   |
| 92 | I remember pushing, but I have no idea how long it was for. They          |                   |
| 93 | put Lucy on my chest, but I was so tired I couldn't focus much. I tore    | Out of control(e) |



|     |   |                |
|-----|---|----------------|
| 145 | breast feed her. I had so many people try to help me with it, but she wouldn't cooperate. They made me feel very guilty about not being able to breastfeed as if it was my fault and if I just tried harder it would work. Every time they weighed her I burst into tears after because they couldn't tell me why she was losing weight. After 7 days they finally let me give up and give her expressed milk and formula. I am still trying to do this now that we are home, but I am having trouble expressing much milk and am giving her more and more formula. This is something that I thought I would be ok with before the birth, but after having so many people tell me I had to breast feed in hospital I feel like I have failed as a mother and that I am not doing a good enough job taking care of Lucy. During my whole time in the hospital I felt very alone, even though my husband came in every day I felt like he didn't want to be there and we ended up fighting towards the end of my stay in the hospital. He was staying up late and not coming into the hospital as soon as he  | Guilty (e)     |
| 146 |   |                |
| 147 |   |                |
| 148 |   |                |
| 149 |   |                |
| 150 |   |                |
| 151 |   |                |
| 152 |   | Thought (c)    |
| 153 |   |                |
| 154 |   | Failure(e)     |
| 155 |   |                |
| 156 | Lonely(e)   |                |
| 157 |   |                |
| 158 |   |                |
| 159 |   |                |
| 160 |   |                |
| 161 | could and got mad when I would tell him he should go eat. He wasn't taking care of himself and was tired and had just quit smoking. I was sleep deprived, emotional and feeling bad about not being able to give my daughter what she needed to quit losing weight. It made for a very tense atmosphere and at its worst led to him leaving the hospital. While I was there I cried a lot. It felt like I was crying most of the time I was there. I felt so defeated by the whole situation. I was very tired and they kept telling me what I had to do. Every time they asked me something I would feel like I was being tested. I had to keep records of every time Lucy ate or had a nappy change. I felt like if the log showed something other than what they expected they were going to get mad at me. I was afraid of doing anything wrong. I wish I had been more firm and stood up to them more about her feeding. I knew days before they let me switch to bottle feeding that that was where we were headed. It was very frustrating as I had a different person looking after me nearly every day and the kept insisting I try to breastfeed and didn't know what I had been through the previous days. I think if I had had continuous care from the same person that she wouldn't have lost so much weight and we would have gone home much sooner. Most of my friends and family live in the US so they couldn't be here for my, but I felt very isolated and almost like I had been abandoned when I was in the hospital. If I hadn't been able to go on Facebook™to speak with people I am not sure I would have been able to cope. I had very few visitors while I was there; only one friend and my husband's sisters and father. My friend only came for a short time and ended up not turning up the second time she said she was coming. My in-laws came to see the baby and I felt like they weren't really there for me even though they were perfectly friendly while there. I definitely plan to have another child in the future, but I would do things very differently than I did this time. I still feel very isolated and like I have very little support. I feel guilty about having to give Lucy formula and like I am defective in some way for not being able to feed her and since I am getting so little milk now. I feel like the whole birth experience was very stressful | Bad(e)         |
| 162 |   | Emotional (e)  |
| 163 |   | Tense (e)      |
| 164 |   | Crying (e)     |
| 165 |   | Defeated (e)   |
| 166 |   |                |
| 167 |   |                |
| 168 |   | Judged(e)      |
| 169 |   | Afraid(e)      |
| 170 |   |                |
| 171 |   | Knew (c)       |
| 172 |   |                |
| 173 |   | Frustrated (e) |
| 174 |   |                |
| 175 |   | Think (c)      |
| 176 |   |                |
| 177 |   |                |
| 178 |   |                |
| 179 |   |                |
| 180 |   |                |
| 181 | Lonely (e)  |                |
| 182 | Abandoned (e)   |                |
| 183 |   |                |
| 184 |   |                |
| 185 |   |                |
| 186 |   |                |
| 187 |   |                |
| 188 |   |                |
| 189 |   |                |
| 190 | Plan (c)  |                |
| 191 | Lonely (e)  |                |
| 192 | Guilty (e)  |                |
| 193 | Defective (e)   |                |
| 194 |   |                |
| 195 | Stressed(e)   |                |

|     |  |   |
|-----|--|---|
| 196 | and since I had so much blood loss I am now high risk and will             | Out of control (e)  |
| 197 | have less control over my next birth. That was the hardest part for        |   |
| 198 | me was the lack of control. While I was using the TENS machine I           | Wonder (c)<br>Unsure (e)<br>Regretful(e)<br>Focussing (c) |
| 199 | felt like I was in control. I could turn it to different settings and felt |   |
| 200 | like I was turning on and off my contractions by doing so. After that      |   |
| 201 | I felt like I was just told what to do and didn't have any say. I          |   |
| 202 | wonder if it would have been different if I had argued more with           |   |
| 203 | what they were telling me to do. I felt so unsure and not at all           |   |
| 204 | confident even though I felt very well informed going into the birth. I    |   |
| 205 | definitely have regrets about the experience, but I try to focus on        |   |
| 206 | the fact that Lucy is healthy now and doing well.                          |   |

### Analysis of Second Writing

| Line | Writing 2  | Code   |            |
|------|--|--|------------|
| 01   | Since the last writing session I have been thinking a lot about my         | Thinking (c)   |            |
| 02   | birth experience and trying to pinpoint what it is exactly that I          | Pinpointing (c)                                      |            |
| 03   | found so hard. The pain wasn't that bad, I felt like I coped well          | Disappointed (e)<br>disappointed (e)<br>Thinking (c) |            |
| 04   | with that. My husband was with me and was as supportive as he              |  |            |
| 05   | could be (although I felt like he could have been more supportive          |  |            |
| 06   | afterwards while I was in the hospital still). So the main thing I can     |  |            |
| 07   | come up with is that I am disappointed with how it went; mainly I          |  |            |
| 08   | am disappointed in myself. You hear about a lot of women who               |  |            |
| 09   | have caesareans who feel like they are failures because they               |  |            |
| 10   | wanted a natural birth. I think I would have coped better had I            |  |            |
| 11   | needed one because I would have known there was nothing I                  |  |            |
| 12   | could have done. Most of the regrets I have about Lucy's birth are         |  | Know (c)   |
| 13   | things I could have prevented. I hate that I have regrets. I regret        | Regret (e)   |            |
| 14   | that I wasn't strong enough to stand up for what I wanted.                 | Hate(e)  |            |
| 15   | Rationally I know that it's hard to make decisions while in labour,        | Regret (e)   |            |
| 16   | but I still feel like if I was able to cope with the pain I should have    | Know (c)   |            |
| 17   | been able to speak up about what I wanted. I regret that I didn't          | Regret (e)   |            |
| 18   | write a better birth plan or go over the one I had in my notes. I          | Regret (e)   |            |
| 19   | really wanted a water birth and since I am now high risk that won't        |  |            |
| 20   | even be an option for any of my future births. I have missed out           |  |            |
| 21   | on my one opportunity for that and if I had just said something at         |  |            |
| 22   | the time I probably could have had it. I regret that I did not talk        |  |            |
| 23   | more with my husband beforehand about what I wanted. If I had              |  |            |
| 24   | he could have helped more with telling the midwife what I wanted.          |  |            |
| 25   | Most of all I regret that I gave in and had the diamorphine. This          |  |            |
| 26   | meant I had to lie down and couldn't be active anymore it also             |  |            |
| 27   | made me very sleepy Due to this I missed out on a lot of what              |  |            |
| 28   | happened right after Lucy was born. Experiences that I can't get           | Regret (e)   |            |
| 29   | back. There are so many things I could have done differently to            | Regret (e)   |            |
| 30   | get the experience that I wanted and I regret that I didn't. I feel        |  |            |
| 31   | that ultimately I have no one but myself to blame for the things           |  |            |
| 32   | that didn't go how I wanted and I hate myself a bit for that. I feel       |  |            |
| 33   | like I failed myself because I could have had control over the             |  |            |
| 34   | situation and I didn't. In the end I have a beautiful healthy              |  |            |
| 35   | daughter so it did turn out for the best, but I still feel like a failure. |  |            |
|      |  |  | Wanted (c) |
|      |  |  | Regret (e) |
|      |  |  | Wanted (c) |
|      |  | Hate (e)   |            |
|      |  | Failure(e)   |            |

### Analysis of Third Writing

| Line | Writing 3  | Code              |
|------|--|-------------------|
| 01   | Through the last writing sessions I have realised that I feel                  | Realised (c)      |
| 02   | responsible for all the problems I have had with my birth experience.          | Responsible (e)   |
| 03   | In some cases I have made excuses for the behaviour of others and              |                   |
| 04   | how I could have made the situation better. I think if I am really             |                   |
| 05   | honest though I am disappointed with the behaviour of others and               | Disappointed (e)  |
| 06   | hopefully in admitting that it will help me to stop feeling like it was all    | Admitting (c)     |
| 07   | my fault. In the last writing session I wrote mainly about how                 | Feeling (e)       |
| 08   | disappointed I was in myself and how I reacted. While that still               | Disappointed (e)  |
| 09   | remains true I know objectively that I need to stop being so hard on           | Know (c)          |
| 10   | myself. I have no problem rationalising the behaviour of others but I          | Rationalising (c) |
| 11   | am far more critical of myself. However, I still feel strongly about the       | Critical (c)      |
| 12   | way that others treated me during the process and in some ways it              | Feel (e)          |
| 13   | made me feel even worse about myself. I previously wrote about the             | Feel (e)          |
| 14   | way the midwives made me feel. I think one of the hardest things               | Feel (e)          |
| 15   | was the inconsistency of care; even through my pregnancy I saw 3               | Think (c)         |
| 16   | different midwives. Through my time in the hospital with the birth I           |                   |
| 17   | saw so many different people that they ran out of room on my notes             |                   |
| 18   | for their names and there are 18 spaces on the sheet. This made me             |                   |
| 19   | need to repeat myself over and over. It was also hard to establish a           |                   |
| 20   | relationship with the people looking after me. Had I had a smaller             |                   |
| 21   | number of people looking after me I think I would have been able to            | Think (c)         |
| 22   | resolve Lucy's feeding issues much sooner. Every time they came to             | Resolve (c)       |
| 23   | speak with me about it and my husband was there I would tell him               |                   |
| 24   | after they left how I really felt. I wish I had been able to be brave          | Felt (e)          |
| 25   | enough to communicate those feelings to the staff. I knew that Lucy            | Wish (c)          |
| 26   | was still hungry and not getting enough food, but doubted myself and           | Knew (c)          |
| 27   | every time I was asked about he feeding I felt like I was being judged         | Doubt (e)         |
| 28   | and tried to say the right thing. In retrospect I should have just been        | Felt (e)          |
| 29   | completely honest with them. However, when I did try to be                     | Retrospect (c)    |
| 30   | completely honest with them about how much I was struggling                    | Felt (e)          |
| 31   | emotionally I felt like my feelings were completely dismissed. They            |                   |
| 32   | wrote down in my notes that I was a bit weepy and upset with the               | Felt (e)          |
| 33   | situation, but I felt like they didn't help with it at all. In reality I spent | Reality (c)       |
| 34   | nearly all my waking hours crying or feeling like crying. My husband           |                   |
| 35   | also wasn't very helpful with this either. I needed (and still need) him       | Needed (c)        |
| 36   | to tell me I was doing a good job and that I was clearly doing all that I      |                   |
| 37   | could. However, he seemed to be too busy focusing on himself to                |                   |
| 38   | give me the support I really needed. I don't think he was even aware           | Think (c)         |
| 39   | he was doing it. During the birth and since then he keeps telling me           |                   |
| 40   | what to do and not asking what I need. He tells me to sleep or sit             |                   |
| 41   | down and if he asked he would realise that I really need my                    | Realise (c)       |
| 42   | surroundings to be clean and to have some adult interaction more               |                   |
| 43   | than I need to rest. While I was in the hospital I barely slept or ate         |                   |
| 44   | because I was always either feeding Lucy, trying to settle her or              |                   |
| 45   | using the breast pump. When they came to do my obs they would                  |                   |
| 46   | ask if I had eaten and most of the time I said no but I could tell they        |                   |
| 47   | weren't really listening as they just said ok and went onto their next         |                   |
| 48   | question. In a lot of ways I felt abandoned. Most of my friends and            | Felt (e)          |
| 49   | family live abroad and the friends I have here didn't bother to come           |                   |

|    |  |             |
|----|--|-------------|
| 50 | visit me. They probably thought that I wouldn't want visitors, but I     | Thought (c) |
| 51 | was feeling very isolated being stuck in the hospital. I felt like my    | Feeling (e) |
| 52 | husband didn't really want to be there and never came for the full       | Felt (e)    |
| 53 | visiting time. It was very surreal when I finally went home, coming out  |             |
| 54 | of the hospital and into the real world again. I felt like I had no      | Felt (e)    |
| 55 | concept of how much time had passed even though I knew it was 8          | Knew (c)    |
| 56 | days. When my contractions first started I was alone and I felt very     | Felt (e)    |
| 57 | alone through the whole time I was in labour. My husband was             |             |
| 58 | asleep for a large part if it because he was tired. I told him it was ok |             |
| 59 | for him to sleep, but really I wanted him to be awake and comforting     | Wanted (c)  |
| 60 | me. When I was in labour at the hospital I felt like the midwife only    | Felt (e)    |
| 61 | came in when I was throwing up or to encourage me to have                |             |
| 62 | medication. Although I felt like she wasn't there much I was happy       | Felt (e)    |
| 63 | every time she left as I felt she was very critical and not very         | Felt (e)    |
| 64 | encouraging. I know that I am still struggling emotionally, but I have   | Know (c)    |
| 65 | been hesitant to go into the doctor as I feel like everyone I have       | Feel (e)    |
| 66 | talked to about it says ok then dismisses it. I think I have learned a   | Think (c)   |
| 67 | lot from my birth experience about myself, but I am still having         | Learned (c) |
| 68 | trouble with how everything went and how it has affected me and my       |             |
| 69 | relationships as a result.   |             |
| 70 |  |             |



## A review assessing the current treatment strategies for postnatal psychological morbidity with a focus on post-traumatic stress disorder

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### ABSTRACT

**Objective:** to conduct a systematic review of randomised controlled trials investigating the efficacy of treatments used to manage postnatal psychological morbidity.

**Design:** a systematic review was conducted of studies in English published from 1995 to 2011. Studies were included in the review if they were randomised controlled trials and had extractable data on symptoms of psychological morbidity after an intervention designed to manage the disorders in postnatal women. Eight studies met the criteria and were included in the review.

**Findings:** the number of participants ranged from 58 to 1745. The interventions included group and individual counselling, debriefing and expressive writing. Authors of only three studies reported fewer symptoms of PTSD after the intervention. Those that appeared to be helpful were counselling and expressive writing. However most authors did not assess pre-existing PTSD.

**Key conclusions and implications for practice:** the review revealed that there was no standardised scale used for diagnosis of post-traumatic stress disorder across the studies and no single efficacious treatment. A universal instrument for diagnosis of postnatal post-traumatic stress disorder is required. The intrapartum relationship with midwives appears to be an important contributor to prevention of PTSD and this requires further investigation.

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### Introduction

Post-traumatic stress disorder (PTSD) is an anxiety disorder with the following symptoms: re-experiencing (e.g. nightmares and flashbacks), persistent avoidance of reminders (e.g. loss of memory of the event) and hyperarousal (e.g. irritability, difficulty concentrating) (APA, 1994). Postnatal PTSD has been acknowledged in the Diagnostic and Statistical Manual of the American Psychiatric Association fourth edition (DSM-IV) since 1994 and may be due to birth trauma related to a woman believing that her life or that of her child has been in danger or her perception of the event is that it was physically or psychologically traumatic. Postnatal PTSD has been reported in the literature since the mid-1990s (Ballard et al., 1995) and could be a concern in terms of public health, since the prevalence ranges from 1.5% to 6% (Ayers, 2001; Beck, 2006; Creedy et al., 2006). However, up to 30.1% of women may be partially symptomatic (Soet et al., 2003).

Unlike Postnatal Depression (PND), PTSD levels are not routinely assessed postnatally and some authors suggest that possibly 25% of women, symptomatic with PTSD, remain undetected (Czarnocka and Slade, 2000). Prevalence of PTSD may be increasing due to further medicalisation of childbirth and women's dissatisfaction with the level of care during labour (Fisher et al., 1997; Creedy, 2000). The impact may be serious as women with postnatal PTSD experience impaired quality of life, changes in their physical well-being, mood, behaviour, social interaction, relationship with partner, mother baby bond and desire to have further children (Ayers et al., 2006b; Parfitt and Ayers, 2009).

### Current treatments

The current recommended treatment in the UK is Cognitive Behavioral Therapy (CBT) (National Institute for Health and Clinical Excellence, 2005); however Ayers et al. (2008) discuss the often inadequate resources available to treat PTSD postnatally. Eye movement desensitisation and reprocessing (EMDR) is also recommended for non-childbirth related PTSD treatment (APA, 2004; INSERM, 2004; National Institute for Health and

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Clinical Excellence, 2005). Sandstrom et al. (2008) piloted its use with postnatal women and it was found to be effective, but it has not been widely applied and more research is needed. Sandstrom et al. (2008) report that the therapy is straightforward and time-efficient when compared with CBT. Written emotional disclosure has also been found to be effective in treating PTSD. Lange et al. (2000) reported that expressive writing reduced PTSD symptoms, while Sloan et al. (2007) reported improvement in psychological and physical health after therapy. van Emmerik et al. (2008) also found that expressive writing compared well to CBT.

Authors show a lack of agreement about how to treat postnatal PTSD, as traditional counselling approaches do not always work (Gamble, 2004; Gamble et al., 2004a,b). Ayers et al. (2006a) report that 94% of hospitals in the United Kingdom (UK) offer postnatal services for women who have experienced difficult births but many have been set up in response to perceived need, without any strong evidence base regarding efficacy, while the service differs from hospital to hospital. Rose et al. (2009) found that the use of debriefing for PTSD unrelated to childbirth was ineffective and could put people at risk of developing PTSD symptoms. As a consequence the most recent UK and US guidelines recommend against the use of debriefing for the treatment of PTSD (Poa et al., 1999; National Institute for Health and Clinical Excellence, 2005).

Olde et al. (2006) suggested a multistep psychosocial approach for treatment involving crisis management for those traumatised by their birth experience. This involves identification by screening immediately after birth, provision of a supportive environment where the woman can talk to health professionals and referral for CBT if necessary.

Steele and Beadle (2003) reported inconsistency in management of perinatal mental health between 46 maternity units surveyed in two regions of England. This inconsistency was again highlighted by Ruwan et al. (2007), who reported the disparity between current practice and postnatal mental health policy. They stressed the importance of offering a service for both those who perceive their birth experience as traumatic (but may not subsequently develop a mental health problem) and for those who develop symptoms of PTSD requiring a specific treatment. A generalised approach in terms of a 'birth afterthoughts' service may not be appropriate for all women but a co-ordinated approach to the management of perinatal mental health services is necessary.

In view of this lack of consistency in management of postnatal PTSD, a systematic review of the current treatments available is required. The aim of the systematic review reported in this paper was to assess the efficacy of current treatments for postnatal PTSD.

## Methods

The review process was based on the Potsdam guidelines for systematic reviews (Cook et al., 1995, p. 167) which defines a systematic review as

The application of scientific strategies that limit bias to the systematic assembly, critical appraisal and synthesis of all relevant studies on a specific topic.

The guidance published was adhered to regarding the following: posing a relevant hypothesis, searching for eligible studies, using robust scoring systems to ascertain the quality of studies and extracting analysing and interpreting the data obtained from the primary studies.

### Search strategy

The following databases were searched, Medline, Ebsco, BNI, Cochrane, PILDTS and Psychinfo for papers published between

1995 and 2011. The start date (1995) was influenced by the literature first reporting postnatal PTSD (Ballard et al., 1995). The key search terms used were 'PTSD' or 'traumatic stress' and 'post natal' or 'postnatal' or 'childbirth' or 'child birth' or 'post partum' or 'mother' or 'matern'. The search revealed 102 papers, subsequently 29 were retrieved and the abstracts or full texts were read. Two additional studies were retrieved by ancestral searching of two previous review papers (Gamble and Creed, 2004; Mangaoang, 2009).

### Eligibility for inclusion in review

The inclusion criteria were research studies in which the method was a randomised controlled trial (RCT) investigating treatment interventions for psychological morbidity and in particular postnatal post-traumatic stress disorder, studies written in English, studies conducted in any population from any country. In some papers the authors of studies on PTSD also referred to psychological morbidities other than PTSD and for completeness we have reported those data in our analysis. However we excluded those studies where morbidity was not directly linked by the authors to PTSD. The following studies were also excluded: those focussing on women in pregnancy, studies in which the women did not have evidence of psychological morbidity and where the treatment intervention was unassessed.

Of the 29 papers found, six were reviews of the topic (Bailham and Joseph, 2003; Gamble and Creed, 2004; Olde et al., 2006; Bastos et al., 2009; Mangaoang, 2009; Lapp et al., 2010) eight were randomised controlled trials; (Lavender and Walkinshaw, 1998; Di Blasio and Ionio, 2002; Priest et al., 2003; Tam et al., 2003; Ryding et al., 2004; Gamble et al., 2005; Kershaw et al., 2005; Selkirk et al., 2006). Ten were reports of current practice (Allott, 1996; Smith and Mitchell, 1996; Allan (1998); McKenzie-McHarg, 2004; Stowe and Newport, 2005; Alder et al., 2006; Ayers et al., 2006a; Kitzinger and Kitzinger, 2007; Rowan et al., 2007; Buck, 2009). Two were qualitative in nature (Beck 2005; Beck, 2006) one reported a case study (Ayers et al., 2006b) and two others (Sorenson, 2003; Sandstrom et al., 2008) were excluded as no control group had been used in the studies (see the flow chart in Fig. 1). In order to assess efficacy of treatment for PTSD and other psychological disorders in a scientifically robust manner, only the eight RCTs were selected for detailed analysis.

Of the eight studies included in the review, one was conducted in Italy, three in Australia, two in the UK, one in Sweden and one in Hong Kong.

### Quality assessment of papers reviewed

The quality assessment tool used in this study was that proposed by Kmet et al. (2004). A quality rating was given to important components of the study such as randomisation and blinding, study design, variance, analysis and confounding variables. Each paper was scored by two researchers independently and their scores were averaged. The quality ranged between 96% and 65%. All eight RCTs were deemed of sufficient quality to be included in the review. Please see Table 1 for a comparison of the studies.

### Data extraction and management

Data were extracted according to the Cochrane review protocol (Bastos et al., 2009) which involved comparison of type of participants, sample size, diagnostic criteria used, nature, timing and duration of debriefing intervention, number and frequency of sessions, type of professional delivering the intervention, intervention components, control components, outcomes (primary



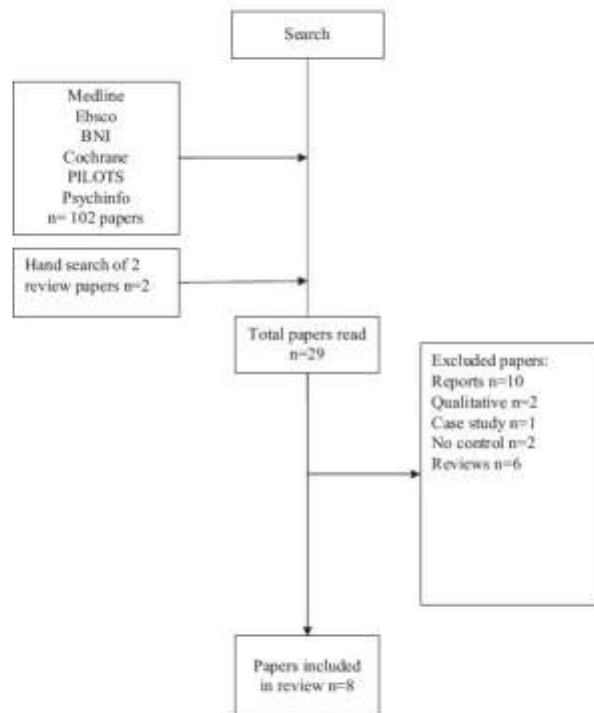


Fig. 1. Search process.

and secondary measures), reported statistics and length of follow-up. These data were presented in tables.

#### Data analysis

The Potsdam guidelines (Cook et al., 1995) suggest that reviews should include all relevant and clinically useful measures of treatment effect in the analysis. As this review only included eight heterogeneous papers it was not deemed appropriate to submit them to meta-analysis and a narrative qualitative summary was appropriate (Cook et al., 1995).

#### Findings

Table 1 provides an overview of each individual study.

#### Type of participants

Bastos et al. (2009) suggest that there will be three types of participants in an RCT: universal, selected and indicated intervention. Of the eight studies reviewed, there was a mix of selected (the most common selection being operative delivery or suboptimal outcomes) and universal participants. None of the studies recruited participants where previous trauma or distress had been previously identified (see Table 2).

#### Sample size

The consideration of sample size is important when determining the robustness of a study. The strongest studies, which scored over 95% using the Kmet et al. (2004) system, were those by Priest et al. (2003) and Kershaw et al. (2005) who used power calculations to determine sample size. Priest et al. (2003) undertook a study involving 1745 women; 870 were allocated to the control group and 875 to the intervention group. The power calculation showed they would need 850 women in each group to detect a reduction in outcome of 5% at 80% power and  $\alpha=0.05$  (which was achieved). They calculated that the sample size would also have 80% power to enable subset analyses with parity and mode of delivery groups. Kershaw et al. (2005) recruited 319 women; 158 were randomised to the control group and 161 to the debriefing group, far more than the 80 participants necessary to obtain a power of 80%.

Studies scoring between 80% and 95% for quality included Lavender and Walkinshaw (1998), Tam et al. (2003) and Gamble et al. (2005); however, only Tam et al. (2003) used a power calculation. Ryding et al. (2004) had performed a power calculation and required 100 participants to achieve a power of 80; however, only 59 women attended the counselling intervention and the authors comment that the validity of the study may have been limited by its relatively low power. The papers with the lowest quality grading were Di Blasio and Ionio (2002) and Selkirk et al. (2006); in the former no power calculation was used and the

**Table 1**  
Prenatal PTSD review of treatment strategies

| Author/ reference         | Title   | Aims   | Intervention   | Method  | Sample   | Analysis   | Strengths/Challenges   | Quality of study and score using the Kline et al. (2004) criteria   |
|---------------------------|---|--|--|---|--|--|--|---|
| Di Rocco and Lewis (2001) | Childbirth and narrative: how do mothers deal with their child's birth?                                 | To ascertain whether psychological expression of negative emotions after childbirth could reduce the occurrence of stress symptoms after labour and delivery | Written emotional expression of their birth story for 10–15 min within 72 hr of the birth                                  | Two days after birth women were asked to write for 10–15 min about the thoughts and feelings they had when experiencing the birth. They were asked to discuss private thoughts and views about the postnatal period. They then filled out a PTSD questionnaire at 2 day postnatally and 2 months. Follow-up occurred at 2 months using a PTSD questionnaire via telephone | 88 women randomised to either intervention (26) and control group (32). Sample included women with pregnancy related problems, personality disorders, and included those with no complications related to labour and no morbidity in either mother or baby post partum                       | p values were calculated but confidence intervals were not                       | Symptoms of avoidance and arousal were both significantly reduced after the intervention compared with the control. However the presence of unexpected feelings and thoughts associated to the birth experience was unchanged. The PTSD questionnaire was only partial. The results for 2 days after delivery show a p value of less than 0.01 for both avoidance and hyperarousal which is significant. The results for 2 months after delivery showed a p value of less than 0.02 for re-experiencing and 0.02 for avoidance   | Score=502. No mention of blinding and many factors were only partially reported such as, description of the objectives, appropriate study design, comparison between subjects at baseline, adequate sample size, methods of data analysis and display and randomisation |
| Carroll et al. (2007)     | Effectiveness of a counselling intervention after a traumatic childbirth: a randomised controlled trial | To assess the effectiveness of counselling after women experience traumatic stress symptoms following childbirth   | Face to face counselling for 40–60 min within 72 hr of the birth and telephone counselling at 4–6 weeks postnatal          | Women received face to face counselling within 72 hr of the birth, followed by telephone counselling at 4–6 weeks postpartum. Duration of intervention 40–60 min. Women were recruited during their last trimester of pregnancy and questionnaires administered before intervention at 4–6 weeks postpartum. Follow-up of all measures was at 1 month                     | 103 Women control (50) Intervention (53) Women experiencing still birth or neonatal death were excluded. Women had to be over 18 years of age expected to give birth to a live infant and able to complete questionnaires and interviews in English to be included                           | An independent samples t-test was carried out on PTSD total symptom scores       | The intervention was effective in reducing symptoms of trauma, depression, stress, and self-blame. But there was not statistical difference between the intervention and control groups. A trend emerged at 1 month showing that the intervention had a positive effect on reducing trauma symptoms over the longer term. Women favoured 4 week post partum as the ideal time to talk about the birth. An independent samples t-test was carried out on PTSD total symptom scores and revealed no difference between groups at the 4–6 weeks follow up ( $p=0.079$ ) but a significant difference at 1 month ( $p=0.001$ ) | Score=503. The weakest area were sample size, evidence of the study design and a good link between results and conclusions  |
| Jeffery et al. (2005)     | Randomised controlled trial of community debriefing following operative delivery                        | To assess whether women who had experience a high level of concern in their birth became less fearful of birth after a debriefing intervention               | Structured community critical incident stress debriefing by midwives in the woman's home at 10 days and 10 weeks postnatal | RCT of community debriefing of birth following operative delivery. RCT. Structured debriefing at 10 days and 10 weeks post delivery in woman's own home. Following a critical incident stress debriefing protocol. Measures were completed at 10 days, 10 weeks and 26 weeks post partum.   | 219 women. Inclusion criteria were mothers who had delivered first child by operative delivery. Exclusion criteria were those unable to speak or read English, had experienced a still birth or neonatal death, also if they were ill on 10 or the baby was in a critical condition on 10/26 | Data were analysed using a 2-tailed independent t-test and a Mann-Whitney U-test | Women in the intervention group had lower WBSQ and BS scores at both 10 days. However debriefing made no significant difference to the incidence of PTSD. The p values were generated for each time interval, 10 days after debriefing $p=0.265$ , 10 weeks after debriefing $p=0.016$ and 26 weeks post   | Score=502   |

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|                             |  |  |   |  |  |   |   |   |
|-----------------------------|--|--|---|--|--|---|---|---|
| Lewinsohn and Walker (1996) | Can mothers reduce postpartum psychological morbidity?   | To provide a postnatal listening service in order to reduce psychological morbidity following childbirth   | Random listening and discussion individually by 30-120 min within 72 hrs of the birth | (deferring group completed questionnaire prior to assessment)<br>Mothers provided postnatal listening and discussion for 30-120 min individually before transfer back home. Anxiety and depression were then assessed at 3 weeks postpartum  | 120 women which included primiparous, singleton pregnancy, cephalic presentation, spontaneous labour at term, normal vaginal delivery of a healthy baby. Excluded if had pre-eclampsia, normal or abnormal placenta, baby in SCBU, women in ICU      | Most confidence tests were used with mid-point and 50% confidence intervals   | deferring $p=0.027$ . In both groups the number of women with clinically significant scores decreased over time<br>Women in the experimental group were less likely to have high anxiety and depression 3 weeks after delivery compared with the control group ( $p=0.0001$ ). Women in the experimental group were more satisfied than those in the control group  | Score=88. A partial score was given to three areas: description of the study objectives, reporting of findings and calculation of adequate sample size              |
| Pinar et al. (2003)         | Does deferring after childbirth, a randomized controlled trial   | To ascertain whether stress deferring and a diagnostic psychological interview were successful in reducing the incidence of major depression after childbirth            | Critical incidents were deferring individually 28-72 hrs after the birth              | The study was based on seven key stages from the critical incident stress deferring model of Mithell. The intervention group received a single session in their hospital room between 28 and 72 hrs post delivery. 25% of women also received a structured, diagnostic psychological interview. The interviews were administered at 2, 6 and 12 months post partum | 1740 (870) control (870) intervention includes: delivered at or near term, singleton post term of English, already under psychological care, less than 18 years, baby needing SCBU. Those meeting psychological features at the time of the delivery | Kaplan-Meier survival analysis was carried out on the data  | No effect on the prevalence of stress disorders or on the time to onset of depression or duration of depressive episodes. Median time to onset was 5 weeks in the deferring group and 4 weeks in the control group but not significant $p=0.84$ . The duration of depressive episode was 24 weeks in the deferring group and 22 weeks in the control group again not significant $p=0.98$ . Most women rated it as helpful in processing the event around the birth | Score=1000  |
| Pilling et al. (2004)       | Group counselling for mothers after emergency caesarean section: a randomised controlled trial of intervention | To assess whether group counselling for mothers after emergency caesarean section was effective in reducing fear of childbirth and PTSD symptoms after caesarean section | Group counselling 2 sessions lasting 2 hr 2-3 weeks apart                             | Group counselling after emergency C/SECTION. Groups consisted of 4-5 women with a partner and a psychologist, lasting 2 hrs. Two sessions 2-3 weeks apart. Women were encouraged to tell their stories and share experiences. Follow-up questionnaires were completed at 6 months post partum  | 185 (93) intervention, 92 control women post Caesarean section   | p values were calculated  | The onset of fear of childbirth was the same after 6 months regardless of the intervention. Women in both groups had the same frequency of PTSD symptoms and PTSD symptoms. Intervention group women reported better physical health but this was not statistically significant. They suggest that they should have assessed p values of < 0.05 (the actual was $p=0.001$ ) to prove conclusively that the counselling had an effect                                | Score=772. The main issues were assessed by rewording and no reporting of the limiting state of the subject   |
| Wilcock et al. (2006)       | The longitudinal effects of residential postnatal deferring on the psychological health of mothers             | To assess the effects on psychological morbidity of deferring after childbirth   | Individual Psychological deferring lasting 30-60 min, 48-72 hrs after birth           | Midwife led psychological deferring after birth. Took place 2-3 days post partum. The women listed 39-60 cues, private not group. Consisted of 8 phases: Introduction, summary of birth experience, share thoughts about the birth, description of current experience, education about what is normal, identify  | 188 women, no intervention given on inclusion/exclusion criteria   | $\chi^2$ and t tests were carried out and a series of split plot analysis of variance (SPSS) were used to test whether the treatment worked | Women in the intervention group were no less likely to develop symptoms of PTSD than the control group. Also there was no difference between groups for levels of anxiety - all groups decreased over time. However mothers in the intervention group showed no less of specific inhibition when in control group sessions did. Those with instrumental births who were   | Score=692. The main issues of concern were that no limiting was mentioned subjects or investigators, no inclusion criteria were mentioned, no raw data was provided |

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Table 1 (continued)

| Author/<br>reference | Title  | Aims  | Intervention   | Method  | Sample   | Analysis   | Results/Findings  | (Quality of study and score using the Kane et al. (2008) criteria)  |
|----------------------|--|---|--|---|--|--|---|---|
|                      |  |   |  | <p>conversations when the mother has had. Between 28 weeks gestation and delivery all measures were completed, at 1–2 days postpartum and at 3 months postpartum further measures were completed.</p>   |  |  | <p>detected had more negative perception of the birth than those who had low levels of intervention, and were detected. Women who were detected until the experience positively. Perceived problems with the birth reduced with time (<math>p=0.11</math>). As regards dyadic attachment detected mothers showed a small loss of satisfaction with their partners up to 3 months postpartum while non-detected mothers showed a significant loss of satisfaction (<math>p=0.06</math>).</p> |   |
| Tan et al. (2015)    | A randomised controlled trial of educational counselling on the management of women who have suffered suboptimal outcomes in pregnancy | To ascertain the effect of midwife led educational counselling on psychological well-being and anxiety of women who had experienced instrumental births | Individual educational counselling lasting 20 mins to 1–4 sessions | This consisted of 2 main components, an explanation of the clinical reasons for the adverse event experienced and a choice for the women to discuss their feelings in relation to the unexpected event. Number of sessions ranged from 1 to 4 and the mean duration was 25 min. A set of materials were administered before counselling and before discharge. Follow-up took place at 8 weeks and 6 months postpartum where further measures were administered. | There were 500 women 263 in counselling group 235 in control (lecture) comparison. 1. Antenatal complications. 2. Ectopic CL. 3. Emergency CS. 4. Instrumental vaginal delivery. 5. Retention of placenta. 6. Postnatal maternal complications. 7. Admission to NICU. Women were included if they did not have previous obstetrical history or if they would leave the area within 6 months. | Statistical analysis was performed using SPSS groups were compared using the Mann-Whitney U-test | <p>Educational counselling was found to have no effect of psychological well-being, depression (<math>p=0.34</math>) or anxiety (<math>p=0.01</math>) hypochondriacality, quality of life or (1)st satisfaction. There was no significant change in general health vision (<math>p=0.50</math>). 9.8% in the intervention group and 10% in the control group met the criteria of possible PPD but this was not statistically significant.</p>   | Score=626. It scored only partially in the following areas, comparison of subjects at baseline, reporting of blinding and controlling for confounding |

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sample size was low as only 58 women were recruited. In the latter, although 149 women were recruited, no power calculation was included and the authors acknowledged that there may have not been enough participants to produce robust results.

*Diagnostic scales and their efficacy*

There was a range of main outcome measures used to assess the effectiveness of the intervention (Table 3). Some were general in scope i.e. reduction of postnatal psychological morbidity (Lavender and Walkinshaw, 1998; Priest et al., 2003; Tam et al., 2003; Ryding et al., 2004; Sellik et al., 2006) while others (Di Blasio and Ionio, 2002; Gamble et al., 2005) focussed on reduction of PTSD symptoms.

In the three studies where the intervention was assessed as effective there were no evaluative tools used in more than one study. Di Blasio and Ionio (2002) and Gamble et al. (2005) measured specifically for PTSD symptoms and found that the intervention was effective, however Gamble et al. report that although symptoms of trauma were reduced post intervention after three months differences between control and intervention groups while not significant were evident. Lavender and Walkinshaw (1998) state that the Hospital Anxiety and Depression Scale may not have been the most appropriate measure to assess the level of anxiety of women during the postnatal period, as the scale has not been validated for postnatal use. However subsequent studies have also used this scale.

*Type of intervention*

Table 4 provides detailed information about the style and timing of the intervention in each study. Only one author reported the use

of groups (Ryding et al., 2004) the rest used individual sessions. Sellik et al. (2006), Priest et al. (2003) and Gamble et al. (2005) included detailed accounts of the counselling used and Di Blasio and Ionio (2002) included the specific writing instructions given to participants. Other authors were less specific regarding methodology. The authors of all the studies employed the intervention during the first few days after birth.

*Type of professional delivering the intervention*

The majority of authors used midwives to conduct the intervention. In some studies, these received specific counselling training (Priest et al., 2003; Gamble et al., 2005; Kershaw et al., 2005); while in others it was left to the individual practitioner to use their judgement regarding the content length or number of sessions offered (Lavender and Walkinshaw, 1998; Tam et al., 2003; Ryding et al., 2004).

*Intervention and control Components*

In the Di Blasio and Ionio (2002) study the intervention consisted of asking women who were approximately 48 hrs postnatal and had experienced a 'normal' birth with no complications to write a brief account of their labour to include their thoughts and feelings within a 10–15 mins time period. The control group received normal postnatal care.

In all other studies the intervention involved counselling or debriefing (Lavender and Walkinshaw, 1998; Priest et al., 2003; Tam et al., 2003; Ryding et al., 2004; Gamble et al., 2005; Kershaw et al., 2005; Sellik et al., 2006). The counselling model employed by Gamble et al. (2005) was presented in table form and did not require psychotherapeutic skills, it comprised asking the woman to tell her story, encouraging expression of feelings, clarification, connecting emotions and behaviours, a review of the management of the labour, discussion around social support coping mechanisms and potential solutions. The group counselling reported by Ryding et al. (2004) involved every woman being encouraged to tell her story after which there was a less structured time allowing the needs of the group to be addressed, at the end group leaders summarised and signposted those who needed further help. The Tam et al. (2003) counselling session allowed women to discuss their feelings about the birth but also incorporated an element of explanation about the clinical aspects of the event or debriefing (Priest et al., 2003; Kershaw et al., 2005; Sellik et al., 2006). In the Kershaw et al. study the debriefing involved six phases, an introduction, fact finding, feelings, symptoms, teaching and validation there was also a phase where questions could be answered and an action plan made. The Priest

**Table 2**  
Types of participants.

| Name of study                  | Selected  | Universal | Indicated |
|--------------------------------|---|-----------|-----------|
| Di Blasio and Ionio (2002)     | No  | Yes       | No        |
| Gamble et al. (2005)           | For trauma symptoms   |           | No        |
| Kershaw et al. (2005)          | For operative delivery  |           | No        |
| Lavender and Walkinshaw (1998) | For normal vaginal delivery of a healthy infant                         |           | No        |
| Priest et al. (2003)           | No  | Yes       | No        |
| Ryding et al. (2004)           | No  | Yes       | No        |
| Sellik et al. (2006)           | No  | Yes       | No        |
| Tam et al. (2003)              | For unexpected ante/per/postnatal events leading to suboptimal outcomes |           | No        |

**Table 3**  
Diagnostic criteria Scales used to assess psychological morbidity.

| Study                          | Scales used  | Intervention effective | PTSD specifically measured |
|--------------------------------|--|------------------------|----------------------------|
| Di Blasio and Ionio (2002)     | Perinatal PTSD questionnaire (Dehler et al., 1996)   | Yes                    | Yes                        |
| Gamble et al. (2005)           | Edinburgh Postnatal Depression Scale (EPDS); Depression Anxiety and Stress Scale—21, Maternity Social Support Scale, Mini International Neuropsychiatric Interview—Post-Traumatic Stress Disorder                | Yes                    | Yes                        |
| Kershaw et al. (2005)          | Wijma Delivery Expectancy Scale, impact of events scale  | No                     | No                         |
| Lavender and Walkinshaw (1998) | Hospital anxiety and Depression Scale (HAD) (Zigmond and Snaith, 1983)   | Yes                    | No                         |
| Priest et al. (2003)           | Impact of events scale, EPDS, PTSD questionnaire (Blake, 1995)   | No                     | Yes                        |
| Ryding et al. (2004)           | Edinburgh postnatal depression score, impact of events scale   | No                     | No                         |
| Sellik et al. (2006)           | Dyadic adjustment scale, State Trait Anxiety Scale, EPDS, Perception Of Birth Scale, Intrapartum Intervention Scale, Impact Of Events Scale, parenting index short form, feedback after debriefing questionnaire | No                     | No                         |
| Tam et al. (2003)              | Clinical Global Impressions, General Health Questionnaire, HAD, client satisfaction (6 weeks only), quality of life questionnaire (6 weeks and 6 months)   | No                     | No                         |



**Table 4**  
Nature timing and duration of intervention.

| Study                          | Intervention                               | Timing   | Duration                          |
|--------------------------------|--|--|-----------------------------------|
| Di Blasio and Ionio (2002)     | Expressive writing about labour experience | 2 days after the birth session                                     | 1 session lasting 10–15 mins      |
| Gamble et al. (2005)           | Face to face and telephone counselling     | 72 hrs after birth and again via telephone at 4–6 weeks postpartum | 2 sessions between 40 and 60 mins |
| Kershaw et al. (2005)          | Face to face 'debriefing lasting'          | 10 days and 10 weeks postpartum                                    | 2 sessions up to 90 mins          |
| Lavender and Walkinshaw (1998) | Face to face 'interactive interview'       | Within the first couple of days of birth                           | 1 session between 30 and 120 mins |
| Priest et al. (2003)           | Critical stress debriefing session         | Within 72 hrs of birth   | 1 session between 15 and 60 mins  |
| Ryding et al. (2004)           | 2 group counselling sessions               | At 2 months postpartum 2–3 weeks apart                             | 2 sessions lasting 120 mins       |
| Selkirk et al. (2006)          | Debriefing                                 | Within 3 days of birth   | 1 session 30–60 mins              |
| Tam et al. (2003)              | Educational counselling                    | Shortly after birth  | 1–4 sessions lasting 25–50 mins   |

et al. study involved similar phases including a normalisation part where the midwife normalised the woman's response to the stressful situation. In the Selkirk a similar approach was also used. Additionally the Lavender and Walkinshaw (1998) study was described as a face to face interactive interview. All studies included a matched control group where usually standard postnatal care was offered. However some studies offered control group women an individual consultation to discuss their birth experience if they wished, but this occurred after they had completed the questionnaires (Ryding et al., 2004). In none of the studies did the authors determine levels of PTSD existing prior to childbirth in participants. It was difficult to assess the relative quality of each intervention due to their heterogeneous nature, as Table 1 shows some studies (DiBlasio and Ionio, 2003) employed minimal clinical interaction whereas others (Lavender and Walkinshaw, 1998; Kershaw et al., 2005) used several sessions involving face to face contact. Some authors state that specific training was given to those administering the intervention, in the case of Tam et al. (2003) this entailed a one year counselling course but it is hard to assess the comparative merits of the intervention per se, when there is so much disparity.

#### Primary and secondary outcomes

Di Blasio and Ionio (2002) reported that symptoms of arousal and avoidance (markers of PTSD) were reduced after the intervention, while Gamble et al. (2005) found that the intervention appeared to reduce symptoms of trauma, depression, stress and feelings of self-blame. Symptoms of depression were also lowered after the intervention in the Lavender and Walkinshaw (1998) study.

The studies which were ineffective in symptom reduction measured the following: fear of childbirth and PTSD (Kershaw et al., 2005), stress disorders and the onset of PND (Priest et al., 2003), fear of childbirth, PND and PTSD (Ryding et al., 2004), PND, anxiety, dyadic satisfaction and perception of birth (Selkirk et al., 2006) and quality of life, anxiety and depression (Tam et al., 2003).

#### Are there any similarities in the studies which found positive benefits to the intervention?

Of the three studies where a benefit to the intervention was found, two used selection criteria for trauma symptoms and for normal birth (Lavender and Walkinshaw, 1998; Gamble et al., 2005) one used the intervention universally (Di Blasio and Ionio, 2002). Di Blasio and Ionio (2002) used a writing intervention (one episode) whereas both other studies used face to face or telephone counselling on either one (Lavender and Walkinshaw, 1998) or two occasions (Gamble et al., 2005). In two studies the intervention was administered within 72 hours of the birth, in

one of these; the Gamble et al. (2005) study, although counselling was used within 72 hours of birth another session was employed at four to six weeks postpartum. However the remaining studies all employed the intervention shortly after the birth (Priest et al., 2003; Tam et al., 2003; Selkirk et al., 2006) and failed to show any benefits. There appears to be little in common between the interventions and not enough studies were available to determine a universally successful intervention.

#### Reported statistics

In the three studies where the intervention was effective in reducing the symptoms of psychological morbidity, none of the authors performed power calculations so it is unclear whether there was a large enough sample size to ascertain whether the results could have been due to chance. However Gamble et al. (2005) and Lavender and Walkinshaw (1998) described and used suitable analytic methods to interpret their results. Gamble et al. (2005) used Pearson's correlation  $\chi^2$  tests and *t*-tests, whereas Lavender and Walkinshaw (1998) used Fisher Irwin 2 tailed analysis and calculated confidence intervals. Although not described in detail, Di Blasio and Ionio (2002) did report variance of their results.

In the studies where the intervention was ineffective, the use of statistical methods was variable; Priest et al. (2003) used standard deviation; however Kershaw et al. (2005), Ryding et al. (2004) and Tam et al. (2003) all reported the use of confidence intervals, Mann-Whitney *U*-tests and standard deviation respectively.

#### Discussion

The main limitations of this review were the low number of papers which met the inclusion criteria and the heterogeneity of the studies. Several authors focused on psychological morbidities other than PTSD which were diagnosed as a consequence of childbirth. For example the main outcome measure in the Kershaw et al. (2005) study was fear of childbirth; however the authors used other measures in the study which assessed PTSD symptoms. In addition, Lavender and Walkinshaw (1998) and Tam et al. (2003) assessed anxiety and depression using the Hospital Anxiety and Depression Scale and as this was used to assess trauma symptoms the inclusion of these studies was thought to be valuable. The three studies which showed improved psychological morbidity used differing interventions; written emotional disclosure (Di Blasio and Ionio, 2002), face to face counselling (Gamble et al., 2005) and listening and discussion (Lavender and Walkinshaw, 1998).

#### Effects due to participant selection

In terms of selection the studies all differed. Di Blasio and Ionio (2002) were unselective, Gamble et al. (2005) selected for trauma symptoms and Lavender and Walkinshaw (1998) selected for normal vaginal birth. Thus it seems unlikely that the effects of the intervention are due simply to a particular choice of participants. Slade (2006) has suggested that emergency caesarean section (CS) and instrumental delivery are external perinatal precipitating factors associated with subsequent post-traumatic stress symptoms, so psychological morbidity would be more likely to arise after a perinatal intervention or operative delivery, however none of the studies where the intervention was found to be effective was specifically selective for CS or instrumental delivery. When no selection took place it can be assumed that some participants had perinatal intervention, particularly since the latest UK caesarean rate is 24.8% (NHS Maternity Statistics, 2010). Some of the participants in the Gamble et al. (2005) study will also have experienced interventions, but as none of the participants in the Lavender and Walkinshaw (1998) study had, one can conclude that although CS and instrumental delivery can contribute to PTSD, or other symptoms of psychological morbidity it is not necessary to have experienced them to have postnatal psychological morbidity. There is evidence that one to one care is rarely achieved for women in labour, despite women citing this as an important aspect of their satisfaction with the birth experience (Czarnocka and Slade, 2000; Gamble et al., 2007). It is possible that without one to one care women may be more likely to perceive labour as a traumatic experience, potentially resulting in higher rates of PTSD. Additionally Lavender and Walkinshaw (1998) make a pertinent comment relating to the fact that in their study 90% of the participants were not visited by the same midwife who delivered their baby; it would be of interest to assess psychological morbidity between those receiving different models of care. MacArthur et al. (2002) investigated a more flexible midwife led model with 40 GP practices and found that postnatal psychological morbidity was reduced compared with standard postnatal care. Conversely Marks et al. (2003) found that while continuous postnatal care was successful in maintaining treatment regimes for women already diagnosed with postnatal depression, the continuous model of care was found to have no impact on psychiatric outcome in a study of 87 women with a previous history of postnatal depression. However, continuity of care postnatally resulted in fewer women with probable depression at seven weeks after the birth when compared with standard care. It cannot be assumed that this would also be the case with women suffering from PTSD and this is an area which would benefit from further research.

#### Time course of PTSD with respect to the intervention

Patients usually present with PTSD symptoms three to twelve months after the traumatic event (National Institute for Health and Clinical Excellence, 2005). However in the eight studies under review the intervention was administered well before this time. This may have been related to the convenience of administering 'preventative' therapy while the women were still in hospital, so it is debatable how many of the participants were suffering symptoms that would have pointed to a diagnosis of PTSD at the time of the therapy.

The DSM-IV criteria, which define PTSD, state that symptoms of re-experiencing, avoidance of the traumatic incident, numbing and increased arousal need to be present for more than one month to constitute a clinical diagnosis of PTSD (National Institute for Health and Clinical Excellence, 2005). Some studies (e.g. Di Blasio and Ionio, 2002) measured PTSD symptoms at only

2 days after childbirth; however, some of the women who initially scored highly for these symptoms after the birth of their baby may not have gone on to develop PTSD. Furthermore, as only small numbers of participants were involved, a true positive effect may have been confounded by natural recovery over time. It is possible that Di Blasio and Ionio (2002) measured symptoms of acute stress, as there is likely to be symptom overlap between acute stress disorder (ASD) and PTSD. When general stress symptoms have been diagnosed early they may not point to subsequent development of PTSD and not all those with PTSD will have suffered previous ASD (Bryant, 2010). So a proportion of women who show little acute stress symptomatology are likely to be missed if treatment is focussed on the immediate postpartum period. Thus many of the studies included in this review may have actually measured ASD rather than PTSD, while some women who subsequently went on to develop PTSD may not have met the criteria for ASD at the time of the study. Consequently both intervention and control groups may have shown more PTSD symptoms over time that could not be detected in the first few days after the birth, thus confounding the results.

Although the intervention employed by Gamble et al. (2005) was successful in reducing trauma symptoms, depressive symptoms and feelings of self-blame, the authors note that by the three month follow-up there were no differences in the number of women with PTSD between control and intervention groups. However the authors of the Gamble study originally used the DSM-IV criterion A to screen for inclusion into the control or intervention groups and it may have been possible that this then included women with a past history of PTSD. In order to remove such confounding factors it is important that future studies ascertain the presence of pre-existing PTSD before employing the intervention.

The intervention used by Ryding et al. (2004) was not effective in reducing psychological morbidity, even though the counselling sessions occurred one to two months postpartum, thus allowing sufficient time for PTSD to develop. The women in the study would have liked more sessions and if this had been the case it is possible that the intervention would have been effective. Ayers et al. (2006a) suggest that debriefing may only be effective if targeted at women who have severe symptoms of PTSD immediately after the birth; however this would imply that the debriefing was aimed at ASD and not PTSD. Alternately Brewin et al. (1999) predicted subsequent PTSD by assessing only three or more intrusive symptoms three weeks after the trauma, using PTSD patients with aetiology other than childbirth. It may therefore be possible for midwives to administer a simple screening tool during postnatal checks to detect women at risk of developing PTSD. However as routine postnatal contact time is reduced there is likely to still be a problem reaching postnatal women in the community.

In most of the studies under review the intervention was delivered in the first few days after the birth. This would have been methodologically straightforward as many of the women would still have been in hospital. However it is interesting to postulate the effect had the interventions been administered several weeks later. Documents produced by both WHO (1992) and National Institute for Health and Clinical Excellence (2005) state that onset of PTSD usually occurs between one and six months after the traumatic event. Soderquist et al. (2006) found that PTSD reactions occurred between one and six months postpartum, the results from their longitudinal study show that PTSD symptoms do not decline with time without treatment. However it is possible that in the studies under review the 'intervention' has been used too early for it to be effective. Additionally Bryant (2007) in a review of debriefing and CBT for non-childbirth related PTSD found that early intervention was



unlikely to reduce PTSD symptoms. Also the Cochrane review of psychological debriefing (Rose et al., 2009) found that debriefing interventions did not prevent PTSD if administered when PTSD was developing and the review also suggested that debriefing used early as a single session may contribute to rather than alleviate symptoms of PTSD. Rose postulates that the treatment may not be effective when administered too early after the traumatic event because not enough time would have elapsed for habituation to occur before re-exposure to the details of the event. It would be of interest to test this theory using other interventions which are currently recommended as treatments for PTSD such as CBT or EMDR.

However the authors in the studies reviewed here may have been successful in reducing acute stress symptoms in participants.

#### *Type of intervention offered*

The National Institute for Health and Clinical Excellence guideline on antenatal and postnatal mental health (National Institute for Health and Clinical Excellence, 2007) does not recommend routine formal debriefing for women after a traumatic birth. Additionally previous studies of non-childbirth related PTSD showed that critical incident stress debriefing was not useful for prevention or treatment (Rose et al., 2009). Of the interventions described, three involved debriefing and none of these was found to have a successful outcome. This may help to consolidate other findings that debriefing is not officially recommended, partially because it is provided too early after the traumatic event (National Institute for Health and Clinical Excellence, 2007). Most clinicians would seek to 'prevent' symptoms, which is why a 'debriefing' approach used within hours of the birth would seem the method of choice. However it is useful to look at the choice of intervention in the light of the time course of development of PTSD symptomatology.

Interestingly only one research group used structured writing as the intervention (Di Blasio and Ionio, 2002) however van Emmerick et al. (2008) compared the use of structured writing and CBT for treating PTSD unrelated to childbirth and found that both therapies reduced intrusive symptoms, depression and state anxiety. Given that comparatively little research exists on psychological treatment strategies for postnatal PTSD, it would be worth investigating structured writing for postnatal women, particularly as this type of therapy would involve less of the health professional's time and enhance the autonomy of the women. Indeed several authors have advocated the use of work books or internet based therapies accessible from home (Lange et al., 2001; Beck, 2005).

#### *Length of follow-up*

The range of follow-up for the studies was one to six months. On the whole researchers undertaking the studies that employed a beneficial intervention tended to use a shorter follow-up time (see Table 5) and it is uncertain whether the effect of treatment would be lost over time. However, Selkirk et al. (2006) found that the state anxiety scores fell for all participants of their study over time, regardless of treatment condition, so it appears that natural recovery occurs as the event becomes a more distant memory.

#### *Variability of outcomes measured*

The authors of four studies under review (Priest et al., 2003; Ryding et al., 2004; Kershaw et al., 2005; Selkirk et al., 2006) used the IES and these studies did not show that the intervention was effective. As the IES provides a quantitative measure of intrusive and avoidance symptoms of PTSD but does not actually diagnose

**Table 5**  
Length of follow-up.

| Study                          | Follow-up  |
|--------------------------------|--|
| Di Blasio and Ionio (2002)     | 2 months postnatally via phone                             |
| Gamble et al. (2005)           | 3 months for all measures                                  |
| Kershaw et al. (2005)          | 20 weeks postpartum (10 weeks after the last intervention) |
| Lawender and Walkimshaw (1998) | 3 weeks postpartum   |
| Priest et al. (2003)           | 2, 6, and 12 months postpartum                             |
| Ryding et al. (2004)           | 6 months postpartum  |
| Selkirk et al. (2006)          | 1 and 3 months postpartum                                  |
| Tam et al. (2003)              | 6 weeks and 6 months                                       |

PTSD, it could be argued that the scale was perhaps less sensitive than others and so changes in psychological well-being were not detected.

#### *Feedback from participants*

In most studies reviewed, even when the intervention was ineffective, a high proportion of the participants welcomed the opportunity to speak or write about their birth experience with health professionals postnatally. Possibly an intervention lasting only an hour may not be enough to make a measureable impact on the mental health of the women over a longer time period, but it may increase their sense of well-being at the time. Also in one study women requested further sessions (Ryding et al., 2004) which may help to explain the findings of a previous review in which the authors concluded that single counselling sessions conducted in the immediate postpartum were not effective in reducing PTSD (Gamble and Creedy, 2004).

Two authors (Tam et al., 2003; Kershaw et al., 2005) discuss whether the Hawthorne effect (McCarney et al., 2007) impacted upon the results, since women attending a counselling session would have known that they were receiving a positive intervention. However it is likely that this would have increased differences between the control and intervention groups and authors of neither study found significant differences between the control and intervention groups after the intervention. If the Hawthorne effect is problematic, perhaps future research should include a control group where participants spend an equal amount of time with health professionals after the birth but are not encouraged to talk about the birth, thus constituting a control which is not 'empty'. Frattaroli (2006) conducted a meta-analysis of writing therapy for PTSD and suggested that controls should not be 'empty' and all groups should initially be given an explanation about the usefulness of the intervention.

#### *Implications for future research and clinical practice*

A significant drawback of most of the studies under review was the measurement and treatment of PTSD symptoms in the immediate post partum period, when it is known that the disorder has a time course of months rather than days. This may mean that for many women the long term negative impact of their birth experience is not detected, as they will no longer be under the care of a midwife and may not present to their general practitioner with mental health problems. Reluctance to seek help may be exacerbated by the high demands of a new baby and societal expectations that women should be happy and fulfilled in their new role (Choi et al., 2005; Hall and Wittkowski, 2006). In addition Gamble et al. (2002) suggest that emotional numbness resulting from the birth trauma and social pressure to accept the



situation may not predispose women to view debriefing positively in the first few days after the birth.

In comparison with postnatal depression (PND), where the Edinburgh Postnatal Depression Scale (EPNDS) is the screening tool of choice (Cox et al., 1987) and is routinely used in the postnatal period, PTSD has no such equivalent. Health-care professionals, specifically midwives, need a well validated, easy to use scale, which could be administered in clinical practice as well as in a research context. Unfortunately the present system relies upon women self-reporting their symptoms, which may leave a large proportion of PTSD sufferers isolated and untreated. This compares unfavourably with what is available for those suffering from PND.

Darvill et al. (2010) conclude that current postnatal midwifery support is focussed upon the physical changes associated with the postpartum rather than supporting the psychological needs of new mothers. However, in order to provide psychological support, midwives need to be aware of the importance of how they interact with women perinatally. Lapp et al. (2010), Slade (2006), Czarnocka and Slade (2000) and Seng et al. (2009) all emphasise the importance of a past history of PTSD, other mental health problems or past sexual or emotional abuse as potential predictors or triggers of postnatal PTSD. This highlights the need for midwives to be aware of a woman's history from the time of the booking appointment to enable support mechanisms to be initiated earlier and potentially reduce the chance of PTSD occurring.

Previous studies have questioned the use of 'preventative' therapies (Slade, 2006; Bryant, 2007) so targeting resources towards screening to identify women at higher risk of future PTSD may be more beneficial than offering debriefing to an unselected group. Additionally research shows that if the women perceive that they are validated and supported by health-care professionals they are more likely to disclose to or seek advice from them (Gerbert et al., 1999).

Given that critical incident stress debriefing is no longer recommended (National Institute for Health and Clinical Excellence, 2005) and that face to face counselling and written emotional disclosure were found to decrease PTSD symptoms researchers should focus on these therapies using a larger cohort of women and explore the impact of a greater number of counselling or writing sessions. Additionally it is imperative that future researchers ascertain the existence of previous or current PTSD or trauma prior to the birth experience. Researchers should also be aware of the crucial timing implications of their intervention and if they set out to measure the effect on PTSD symptoms it is important that they administer the intervention only after PTSD is likely to be present. It is recommended that further studies seek to use treatment within participants' own homes to make access and participation easier.

## Conclusions

Since this review found three types of intervention to be effective it can be concluded that there is insufficient evidence to determine which treatment strategy works best.

A co-ordinated approach to develop and utilise a universal PTSD instrument, encourage awareness of previous psychological trauma and investigate suitable timing of interventions is necessary to facilitate improved management of perinatal mental health problems.

## Conflict of interest

None.

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