Sheen, K and Slade, P

The efficacy of 'debriefing' after childbirth: Is there a case for targeted intervention?

ABSTRACT: **Objective:** To review the efficacy of debriefing interventions for reducing posttraumatic stress (PTS) and/ or depressive symptoms in postnatal women. **Background:** Techniques referred to as debriefing have been adapted for use within maternity care settings to prevent the development of PTS symptoms or depression. There is a requirement to disaggregate methods and approaches used by existing studies, rather than review the research as a whole, to identify elements that may contribute to an efficacious intervention and to clarify what is currently a confused position. **Methods:** Papers assessing the utility of providing a brief psychological intervention involving discussion of a birth with the mother and a professional, to reduce symptoms of PTS or depression, were reviewed. Discussions could be structured or unstructured, and involve any aspect of discussing the birth, responses and coping strategies. **Results:** Nine papers (eight studies) were reviewed. Whilst the majority of studies reported findings indicating that debriefing was ineffective for reducing post traumatic stress or depressive symptoms, there was evidence indicating that targeted interventions (for women who experienced a traumatic birth) were efficacious. **Conclusion:** There may be potential utility in providing a debriefing intervention for women who perceive their childbirth experience to have been traumatic. A diversity of approaches termed 'debriefing' highlight a requirement to consider alternative terminology; the term 'childbirth review' is suggested as a useful alternative. Further research evaluating the efficacy of debriefing using a targeted approach for trauma perception is recommended.

KEY WORDS: Depression, childbirth, debriefing, intervention, posttraumatic stress

MAIN TEXT

INTRODUCTION

In the developed world childbirth is generally considered to be a normal, positive event for women. However up to 45% of women perceive childbirth as traumatic, believing themselves or their child to be at risk during birth (Alcorn et al., 2010; APA, 2013). Following childbirth up to 6% of women develop symptoms of posttraumatic stress disorder (PTSD) (APA, 2013; Czarnocka & Slade, 2000; Ayers & Pickering, 2001) and up to 13% of women experience symptoms of depression (O'Hara & Swain, 1996). Both PTSD and depression can hold adverse implications for the mother's wellbeing, family relationships and bonding with the baby (Ayers, Eagle & Waring, 2006; Nicholls and Ayers, 2007), and therefore attempts to prevent or reduce the development of symptomatology are important.

Psychological debriefing was originally developed for use with emergency personnel, aimed at facilitating processing of traumatic event information to reduce psychological distress (Parkinson, 1997; Rose et al., 2002; Selkirk et al., 2006). Postnatal 'debriefing' was introduced in the 1990's; in this context the debriefing typically provided the mother with an opportunity to discuss her birthing experience with a midwife or obstetrician (Ayers, Claypool & Eagle, 2006). Studies indicate that postpartum debriefing is still offered on an informal basis routinely across the UK (Ayers et al., 2006; Collins, 2006).

A systematic review reported that single-session debriefing interventions following general trauma did not reduce symptoms of PTSD, depression or anxiety (Rose et al., 2002). Review papers specifically considering evidence for postnatal debriefing indicate that interventions are ineffective at reducing posttraumatic stress (PTS) or depressive symptomatology (Gamble et al., 2002; Lapp et al., 2010; Peeler et al., 2013). However, within the negative findings certain elements of debriefing interventions were highlighted for their utility. Peeler et al., (2013) identified aspects such as the relationship between the mother and midwife may positively influence the outcome of interventions.

There is often ambiguity and variation in the content of postnatal debriefing interventions (Gamble et al., 2002; Gamble & Creedy, 2004); and both structured and unstructured approaches have been used. An example of a structured approach to debriefing is Critical Incident Stress Debriefing (CISD) (Mitchell, 1997; Parkinson, 1997). CISD is typically provided 1-10 days after a traumatic event and involves a sequential discussion about affective and cognitive responses to an adverse event, structured into 7 stages (Mitchell, 1997). Unstructured approaches provide an individual with the opportunity to discuss their experience, but the individual in receipt of support determines the content.

Heterogeneity of what is meant by postnatal 'debriefing' prevents general conclusions regarding the efficacy of debriefing without further qualification and there is a need to disaggregate findings based on the specific approaches taken. One way to do this is to consider whether the intervention was universal (i.e., provided to all experiencing a particular event) or targeted (e.g., provided to a specific population considered at risk of psychological distress), whether the intervention is structured or unstructured, and when the intervention is provided after a specific event.

Psychological debriefing as indicated is provided universally following an adverse event (Parkinson, 1997). However, providing a debriefing intervention to all women postnatally will include high proportions that have not experienced an objectively adverse event. Perception of trauma is subjective, and in any cohort experiencing an objectively severe event, only a proportion will perceive the event as traumatic. A smaller percentage would be expected to require (or request) additional input. Women who experience an instrumental birth or emergency caesarean section may be at greater risk of developing PTS symptoms in the postpartum (Astbury et al., 1994; Boorman et al., 2014; Ryding, Wijma & Wijma, 1998). Therefore, for postnatal populations, it may be more useful to target interventions for women who are considered at greater risk of developing symptoms of PTS or depression, due to specific intrapartum events or negative appraisal of the birth.

The requirement for interventions to be structured is uncertain. A valued element of debriefing interventions as reported by women is the opportunity to discuss their birthing experience, as this contributes to a perception of 'validation' (Baxter et al., 2014; Lee, Slade & Lygo, 1996). If a key element in postnatal debriefing is the opportunity to discuss the birthing event, then the requirement for this process to be standardised (as with the original approach of psychological debriefing), needs further consideration.

AIM

This review synthesises findings from studies that have provided a psychological debriefing intervention for postnatal women with an aim to assess utility in reducing PTSD or depression symptoms. Findings will be critically analysed in terms of their approach (universal or targeted application), method of delivery (structured or unstructured) and efficacy for reducing psychological distress (PTS symptoms or depression) in comparison to usual care alone.

METHOD

A search was conducted using PsychArticles, WOK and Scopus to identify empirical investigations published between 1980 and 2014. The terms 'childbirth', 'preg*', 'postpartum' were searched alongside 'debrief*', 'counselling', 'counseling' and 'trauma'. Papers were hand-searched for additional references.

Included papers assessed the impact of psychological debriefing on symptoms of PTS or depression in women following childbirth, and involved a brief (1-2 sessions) psychological intervention provided by a midwife or psychologist in either a group or individualised situation. The primary outcome measure was the assessment (self-report or clinician evaluation) of PTS or depressive symptomatology. Papers were excluded if the population did not give birth to a live infant at or near (>37 weeks gestation) term, as this is likely to involve different psychological sequelae. Due to an unavailability of translation, papers were excluded if they were not published in English. Interpretation of study findings was driven through the appraisal of the design and methodology used, however no study was excluded on the basis of this quality appraisal. Figure 1 displays the selection process used.

RESULTS

Nine papers, reporting findings from eight studies, were included in the review (Table 1). Two studies conducted universal interventions (Priest et al., 2003; Selkirk et al., 2006), and six reported findings from studies (including one longitudinal follow up), which targeted interventions either according to a perception of trauma (Gamble et al., 2005; Meades et al., 2011) or mode of birth (Kershaw et al., 2005; Ryding et al., 2004; Small et al., 2000; Small, Lumley & Toomey, 2006). One study (Lavender & Walkinshaw, 1998) did not provide a universal intervention, but did not target interventions for individuals potentially at higher risk for PTS or depression after childbirth (e.g., due to perception of trauma or instrumental delivery).

Universal application

Priest et al. (2003) assessed the efficacy of a structured (CISD) debriefing intervention provided 72 hours after birth (*n*= 1745). A control group received usual postnatal care. There were no differences in PTS or depressive symptomatology between the intervention or control group at two, six or 12 months postpartum. Random allocation to treatment or control group was stratified by parity and mode of birth, thus controlling for these potentially confounding factors. Furthermore, the large sample size recruited from two sites increases the generalizability of findings. Selkirk et al., (2006) also tested a structured (CISD) intervention, 48- 72 hours after birth, with a smaller sample of women (*n*= 149). At 28 weeks postpartum, there was no significant difference in PTS symptomatology between groups. The authors note that the small sample size limited statistical power, and the one-site recruitment also limits generalizability of findings. Findings from both studies indicate that structured debriefing interventions universally provided shortly after birth, were ineffective preventative methods for PTSD or depressive symptomatology.

Targeted: perception of trauma

Gamble et al. (2005) provided a structured (CISD) intervention with women (*n*=103) initially within 72 hours of birth, and again by telephone at 4-6 weeks postpartum. There was no significant difference in PTSD 'caseness' between the intervention and control group at 4-6 weeks or 3 months postpartum. However the intervention group reported significantly lower PTS symptomatology than the control group at 3 months postpartum. Strengths of this study include blind allocation to control or intervention groups, and assessment of trauma perception using Criterion A of the DSM (APA, 2000).

Meades et al. (2011) evaluated the efficacy of an existing postnatal debriefing service in a study with women (*n*= 80) where allocation to treatment group was based on perception of childbirth as traumatic and a request to receive debriefing. Interventions took place between 12 weeks and 6 years postnatally (median 16 weeks). The debriefing intervention was unstructured but included elements included in structured approaches. Women receiving the intervention reported significantly lower PTS symptomatology one month later in comparison to controls, but there was no difference in depressive symptomatology. Therefore postnatal debriefing effectively reduced PTS symptomatology when targeted for women who perceived their experience of birth to be traumatic, and who were receptive receiving an intervention.

Targeted: mode of birth

Three studies (and one follow up) reported findings from targeted interventions for women based on mode of birth; emergency caesarean section (EmCS) (Ryding et al., 2004) and instrumental delivery (Kershaw et al., 2005; Small et al., 2000; Small, Lumley & Toomey, 2006).

Small et al. (2000) reported findings indicating that the provision of an unstructured debriefing session with women shortly after an operative birth was not effective in reducing symptoms of depression at 6 months postpartum in comparison to usual care alone. There was a (non-significant) trend for women in the debrief group to report higher symptoms of depression than women in the control group. A follow-up study, 4-6 years later, reported no difference in depression between groups (Small, Lumley & Toomey, 2006). Timing of the debriefing session was not provided, limiting comparison to other studies. Selection for operative delivery also included elective caesarean sections, unlike other studies that selected only EmCS (e.g., Ryding et al., 2004) or operative vaginal delivery (e.g., Kershaw et al., 2005), which may include women with different experiences.

Ryding et al. (2004) investigated the utility of unstructured group (4-5) counselling for mothers (*n*= 157), one to two months following EmCS. There was no significant difference in PTS severity between intervention and control groups at six months postpartum. However there was a (non-significant) trend for lower PTS symptoms reported by the intervention group.

Only one study conducted a structured intervention targeted for mode of birth. Kershaw et al. (2005) provided two sessions of CISD interventions with primiparous women (*n*= 319), 10 days and 10 weeks postpartum. There was no difference in the proportion of women indicating symptoms of PTSD between either group at 10 or 20 weeks postpartum. PTSD incidence was inferred using a cut off typically used to infer 'high PTSD' symptoms (>=19 on the Impact of Event Scale). The control group received standard postpartum care, consisting of a discussion with the doctor following the birth and the opportunity to discuss and ask the community midwife questions at the first postnatal visit. Therefore, it is possible that the control group received an element of 'debriefing', albeit less formally, and findings may instead indicate a lack of efficacy for an additional (structured) debrief to existing (unstructured) procedures.

Not universal, not targeted

One study included in this review provided a debriefing intervention for women who had specifically experienced a normal vaginal delivery; and was therefore neither universal nor targeted for increased risk. Lavender and Walkinshaw (1998) conducted unstructured 'interactive interview' sessions with women (*n*= 114) 2 days after a normal vaginal delivery. Three weeks later, women receiving the intervention reported significantly lower levels of depression and anxiety in comparison to those within the control group. This study indicates the utility of providing an informal discussion with women soon after birth for ameliorating symptoms of distress. However symptoms were assessed relatively shortly after birth (3 weeks); one of the shortest follow-ups of all studies reviewed.

DISCUSSION

Of the eight intervention studies included in the review, three reported positive findings following a debriefing intervention. Of these, two targeted interventions for women who perceived childbirth as traumatic (Gamble et al., 2005; Meades et al., 2011) and one provided an intervention for women following normal vaginal birth (Lavender & Walkinshaw, 1998). Two of these studies provided the intervention shortly after birth (first point of contact within 72 hours; Gamble et al., 2005; Lavender & Walkinshaw, 1998) and one provided the intervention at the mother's request (median 16 weeks after birth; Meades et al., 2011). Of the three studies reporting efficacious results, one used a structured CISD approach (Gamble et al., 2005), and two used an unstructured approach (Lavender & Walkinshaw, 1998; Meades et al., 2011). Therefore findings from this review indicate some utility in targeting interventions based on a perception of childbirth trauma, with an initial contact shortly after birth (or when requested). There was no discernable pattern in the requirement for interventions to be structured or unstructured.

Studies targeting interventions for women based on mode of delivery did not report a reduction in the severity of PTS or depressive symptomatology (Kershaw et al., 2005; Ryding et al., 2004; Small et al., 2000). However, targeting interventions for women who had perceived childbirth as traumatic did significantly reduce symptoms of PTS; two of the three studies reporting efficacious effects of debriefing took this approach (Gamble et al., 2005; Meades et al., 2011). Both studies defined perception of trauma using Criterion A of the DSM-IV (APA, 2000), which assesses the perception of threat to life during childbirth in addition to an appraisal of fear, helplessness or horror. Criterion A for trauma exposure was recently amended for the DSM-V (APA, 2013), to include only a perceived threat to life without requirement for appraisal. Findings from these studies indicate that debriefing interventions may hold utility when targeted for women who have perceived childbirth to be traumatic, and that assessment of trauma may need to reflect both a perceived threat to life and appraisal in line with the DSM-IV criterion (APA, 2000).

An additional aim of this review was to consider current evidence for conducting a structured or unstructured debriefing intervention. Five studies adapted a structured approach based on CISD (Gamble et al., 2005; Kershaw et al., 2005; Priest et al., 2003; Selkirk et al., 2006). Two studies referred to using an unstructured approach, yet the content of these interventions were similar in principal to CISD; aimed at eliciting discussion of the event and evoked responses (e.g., Lavender & Walkinshaw, 1998; Ryding et al., 2004). Of the three studies reporting efficacious results, one involved structured debriefing (Gamble et al., 2005), and the remaining two involved an unstructured approach but with some similar elements to CISD content (Lavender & Walkinshaw, 1998; Meades et al., 2011).

The timing of interventions following birth is an important, in order to prevent inadvertently disrupting normal psychological adaptation (Peeler et al., 2013). Timing of interventions following birth ranged from a mean of 2-3 days (Gamble et al., 2005; Lavender & Walkinshaw, 1998; Priest et al., 2003, Selkirk et al., 2006), 10 days (Kershaw et al., 2005), 4-8 weeks (Ryding et al., 2004) and finally a median of 16 weeks (Meades et al., 2011) after birth. Findings from this review indicate that the provision of debriefing interventions may hold greater utility when provided shortly after birth, or when requested by the mother at a later time point.

Implications

Further research systematically investigating the efficacy of conducting a targeted intervention based on trauma appraisal is required. Overlap in terminology used to refer to interventions across studies highlights a requirement for standardised terminology. Studies cited 'counselling interventions', 'interactive interviews', a 'discussion of labour,' and 'debriefs.' There appeared to be no discernable pattern within this review to the efficacy of interventions when implemented as a structured, process-driven approach (e.g., Gamble et al., 2005; Kershaw et al., 2005; Priest et al., 2003; Selkirk et al., 2006)

or as an informal, patient-driven discussion (e.g., Lavender & Walkinshaw, 1998; Ryding et al., 2004; Small et al., 2000). However, discussion of the childbirth event and associated responses was associated with an effective reduction in psychological distress (Gamble et al., 2005; Lavender & Walkinshaw, 1998; Meades et al., 2011). For this reason it is suggested that the term 'childbirth review' holds utility describing interventions that facilitate the discussion of labour, feelings and responses without associated connotations held with the term 'psychological debrief.'

Study findings indicated that interventions are welcomed by women (Priest et al., 2003; Small et al., 2000). Priest et al. (2003) reported that two in three women in their study reported the intervention as moderately to greatly helpful. Therefore, despite the limited evidence for their efficacy, the women who receive debriefing interventions perceive them as acceptable and helpful.

Limitations

Findings are limited by a small number of studies fulfilling the inclusion criteria. Whilst some studies selected only primiparous women (e.g., Kershaw et al., 2005; Lavender & Walkinshaw 1998), controlling for the potential confounding factor of parity, or stratified allocation of women to treatment groups according to parity (e.g., Priest et al., 2003), several studies did not. Several studies did not provide details about the care received by control groups (e.g., Lavender & Walkinshaw, 1998; Selkirk et al., 2006). If a control group received usual care in the form of a discussion with their doctor or midwife about the birthing event (e.g., Kershaw et al., 2005), then it is unclear as to whether providing an (unstructured) debriefing 'intervention' will be advantageous, or indeed different. All studies used self-report assessments of symptom severity; studies using clinical interview methods are required to infer clinical utility in providing debriefing interventions.

CONCLUSION

The efficacy of providing a debrief or 'childbirth review' for postpartum women to prevent the development of psychological distress is uncertain. Of the small number of studies implementing controlled evaluations, the majority reported null effects in reducing psychological distress. There appears to be some promise in providing an early childbirth review meeting with women who have perceived their experience of birth to be traumatic. Two of the three studies reporting a beneficial effect of debriefing women had used this strategy. Conclusions over the utility of childbirth reviews need to be drawn from their applicability to the populations sampled, and further research targeting debriefing for women following traumatic childbirth is required.

REFERENCES

Alcorn, K. L., O'Donovan, A., Patrick, J. C., Creedy, D., & Devilly, G. J. (2010). A prospective longitudinal study of the prevalence of post-traumatic stress disorder resulting from childbirth events. *Psychological medicine*, *40*(11), 1849-1859.

American Psychological Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (IV-TR). Washington DC: American Psychiatric Association.

American Psychological Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (V). Washington DC: American Psychiatric Association.

Astbury, J., Brown, S., Lumley, J., & Small, R. (1994). Birth events, birth experiences and social differences in postnatal depression. *Australian journal of public health*, *18*(2), 176-184.

Ayers, S., Claypool, J., & Eagle, A. (2006). What happens after a difficult birth? Postnatal debriefing services. *British Journal of Midwifery*, *14*(3), 157- 161.

Ayers, S., Eagle, A., & Waring, H. (2006). The effects of childbirth-related post-traumatic stress disorder on women and their relationships: a qualitative study. *Psychology, health & medicine*, *11*(4), 389-398.

Ayers, S., & Pickering, A. D. (2001). Do women get posttraumatic stress disorder as a result of childbirth? A prospective study of incidence. *Birth*, *28*(2), 111-118.

Baxter, J. D., McCourt, C., & Jarrett, P. M. (2014). What is current practice in offering debriefing services to post partum women and what are the perceptions of women in accessing these services: A critical review of the literature. *Midwifery*, *30*(2), 194-219.

Boorman, R. J., Devilly, G. J., Gamble, J., Creedy, D. K., & Fenwick, J. (2014). Childbirth and criteria for traumatic events. *Midwifery*, *30*, 255- 261.

Collins, R. (2006). What is the purpose of debriefing women in the postnatal period. *Evidence Based Midwifery (Royal College of Midwives)*, *4*, 1-20

Czarnocka, J., & Slade, P. (2000). Prevalence and predictors of post- traumatic stress symptoms following childbirth. *British Journal of Clinical Psychology*, *39*(1), 35-51.

Elmir, R., Schmied, V., Wilkes, L., & Jackson, D. (2010). Women's perceptions and experiences of a traumatic birth: a meta- ethnography. *Journal of advanced nursing*, *66*(10), 2142-2153.

Gamble, J., & Creedy, D. (2004). Content and processes of postpartum counselling after a distressing birth experience: a review. *Birth*, *31*, 213- 218.

Gamble, J., Creedy, D., Moyle, W., Webster, J., McAllister, M., & Dickson, P. (2005). Effectiveness of a counselling intervention after a traumatic childbirth: A randomised controlled trial. *Birth*, 32(1), 11- 19.

Gamble, J., Creedy, D., Webster, J., & Moyle, W. (2002). A review of the literature on debriefing or non-directive counselling to prevent postpartum emotional distress. *Midwifery*, 18, 72- 79.

Kershaw, K., Jolly, J., Bhabra, K., & Ford, J. (2005). Randomised controlled trial of community debriefing following operative delivery. *BJOG: an International Journal of Obstetrics and Gynecology*, 112, 1504- 1509.

Lapp, L., Agbokou, C., Peretti, C., & Ferreri, F. (2010). Management of post traumatic stress disorder after childbirth: a review. *Journal of Psychosomatic Obstetrics and Gynecology*, 31(3), 113-122.

Lavender, T., & Walkinshaw, S. (1998). Can midwives reduce postpartum psychological morbidity? A randomised trial. *Birth*, 25(4), 215- 219.

Lee, C., Slade, P., & Lygo, V. (1996). The influence of psychological debriefing on emotional adaptation in women following early miscarriage: A preliminary study. *British Journal of Medical Psychology*, 69(1), 47- 58.

Mitchell, J. T. (1997). When disaster strikes…the critical incident stress debriefing process. *Journal of Emergency Medical Services*, 8, 36- 39.

Meades, R., Pond, C., Ayers, S., & Warren, F. (2011). Postnatal debriefing: Have we thrown the baby out with the bathwater? *Behaviour Research and Therapy*, 49(5), 367- 372.

Nicholls, K., & Ayers, S. (2007). Childbirth- related post- traumatic stress disorder in couples: A qualitative study. *British Journal of Health Psychology, 12*(4), 491-509.

O'hara, M. W., & Swain, A. M. (1996). Rates and risk of postpartum depression-a meta-analysis. *International review of psychiatry*, *8*(1), 37-54.

Parkinson, F. (1997). *Critical incident stress debriefing: understanding and dealing with trauma.* Souvenir Press: London.

Peeler, S., Chung, M. C., Stedmon, J., & Skirton, H. (2013). A review assessing the current treatment strategies for postnatal psychological morbidity with a focus on post-traumatic stress disorder. *Midwifery*, 29(4), 377- 388.

Priest, S. R, Henderson, J., Evans, S. F, & Hagan, R. (2003). Stress debriefing after childbirth: A randomised controlled trial. *The Medical Journal of Australia*, 178(11), 542- 545.

Rose, S., Bisson, J., Churchill, R., & Wessely, S. (2002). Psychological debriefing for preventing post traumatic stress disorder (PTSD). *Cochrane Database Systematic Reviews*, *2*(2).

Ryding, E. L., Wijma, K., & Wijma, B. (1998). Psychological impact of emergency cesarean section in comparison with elective cesarean section, instrumental and normal vaginal delivery. *Journal of Psychosomatic Obstetrics & Gynecology*, *19*(3), 135-144.

Ryding, E. L., Wirén, E., Johansson, G., Ceder, B., & Dahlström, A. M. (2004). Group counseling for mothers after emergency cesarean section: a randomized controlled trial of intervention. *Birth*, *31*(4), 247-253.

Selkirk, R., McLaren, S., Ollerenshaw, A., McLachlan, A. J., & Moten, J. (2006). The longitudinal effects of midwife- led postnatal debriefing on the psychological health of mothers. *Journal of reproductive and infant psychology*, *24*(2), 133-147.

Small, R., Lumley, J., Donohue, L., Potter, A., & Waldenström, U. (2000). Randomised controlled trial of midwife led debriefing to reduce maternal depression after operative childbirth. *Bmj, 321*(7268), 1043-1047.

Small, R., Lumley, J., & Toomey, L. (2006). Midwife-led debriefing after operative birth: four to six year follow-up of a randomised trial. *BMC Medicine, 4(3).*

Table 1. Description of studies included in the review

Author (date); location	Timing and approach of intervention	Details	Symptom assessment	Population	Results
Gamble et al., (2005); AUS	Within 72 hours after birth and 4-6 weeks postpartum. Targeted: perception of trauma (Criterion A of DSM IV).	Face to face counselling intervention (lasting between 40-60 minutes) provided by one research midwife at 72 hours postpartum, telephone counselling at 4-6 weeks postpartum. Based on theoretical perspective incorporating CISD and issues related to childbearing.	4-6 Weeks and 3 months postpartum: PTSD (MINI-PTSD)	*N*= 103 women giving birth to a live infant in any of three hospitals within one region, attending for antenatal appointment in the last trimester of pregnancy. Exclusion criteria: under 18 years of age, delivering prior to third trimester, not able to complete materials in English, women experiencing stillbirth or neonatal death.	No sig diff between intervention and control group in PTSD diagnosis at either 4-6 weeks or 3 months postpartum. No sig diff between PTS symptom severity treatment groups at 4-6 weeks, significantly lower PTS in intervention group at 3 months postpartum. At 3 months the intervention group had a sig. lower proportion of depression caseness.
Kershaw et al., (2005); UK	10 days and 10 weeks after birth. Targeted: mode of birth (operative delivery)	Structured debrief carried out by midwives in the mothers' homes twice: 10 days and 10 weeks postpartum A structured CISD approach was followed.	PTS symptoms (IES) assessed at 10 days, 10 weeks and 20 weeks postantal	*N*= 319 primiparous women (*n*= 158 control, *n*= 161 debrief) who had experienced an operative birth (forceps, vacuum, EmCS). Exclusion criteria: not able to read/speak English, women experiencing stillbirth or NN death, requiring ICU treatment or infant requiring treatment in a special care baby unit.	No sig diff in PTS caseness between groups at any time point. Non-significant tendency for debrief group to have less clinically relevant cases of PTS
Lavender & Walkinshaw (1998); UK	2 days postpartum Targeted: mode of birth (normal vaginal delivery)	'Interactive interview'; ask questions, explore feelings. Conducted by one midwife who received no formal training in counselling. Non-structured approach; psychological intervention to	3 weeks postpartum: Anxiety and depression (HADS)	*N*= 114 women (*n*= 58 intervention, *n*= 56 control). Primiparous women, singleton pregnancy, normal vaginal delivery. Recruited at 20-week scan. Exclusion criteria: third degree perineal tear, manual removal of placenta, baby admitted to special	Intervention group had lower proportion of clinical levels of anxiety/depression in comparison to controls at 3 weeks postpartum

		reduce psychological morbidity after exposure to trauma. No in-depth questioning.		care baby unit, woman requiring high dependency care.	
Meades et al., (2011); UK	Median 16 weeks postpartum. Targeted: Criterion A of DSM IV, wanting to receive debrief.	1:1 sessions with one of two midwives, specially trained in either CBT and solution focused therapy, or counselling techniques. Debrief gave opportunity to discuss the pregnancy and birth, feelings and emotions, concerns about future birth (if appropriate).	Depression (EPDS), PTS symptoms (PSS-SR), posttraumatic cognitions (PTCI) assessed prior to debrief and 1 month after	*N*=80 women recruited (*n*= 46 debrief, *n*= 34 control). Exclusion: not perceiving childbirth as traumatic (defined using DSM-IV Criterion A for PTSD), under 18 years of age, not fluent in reading/writing English.	Debrief group sig. greater reduction in PTS and negative appraisals in comparison to control group. No significant difference in depression scores between groups over time.
Priest et al., (2003); AUS	Standardised CISD, within 72 hours postpartum. Universal provision.	Single, standardised debriefing session in hospital within 24 hours of recruitment. Based on CISD, adapted for postpartum allocation. Provided by a midwife (one of many) trained in CISD. Control group received standard PN care.	PTS symptoms (IES-R) & EPDS at 2, 6 and 12 months postpartum.	*N*=1745 recruited (*n*= 870 control, *n*= 875 intervention group). All women birthing >35WG at any of two hospitals. Exclusion criteria: currently receiving psych care, <18 years old, infant in NICU.	No group diff in PTS symptoms or depression at any point of follow up. No difference in depression caseness.
Ryding et al., (2004); SWEDEN	Group counselling sessions (4-5 women, 2 hours duration) at 1-2 months postpartum. Targeted: mode of birth (EmCS)	Unstructured. Provided an opportunity to discuss, to meet others who had experienced similar, share experiences, discuss physical and psychological/emotional responses, signpost to further help.	PTS symptoms (IES), depression (EPDS) assessed at 6 months postpartum	*N*=157 women (*n*=82 intervention, *n*= 75 control) delivering a live infant by EmCS. Exclusion criteria: Low BW and infants needing NN care.	No group difference in median PTS symptoms or depression at 6 months postpartum
Selkirk et al., (2006); AUS	2-3 days postpartum. Universal provision.	Debrief session informed by hospital guidelines: 8 phases; Introduction, fact phase, thoughts phase, feelings	Symptom Checklist 90-R (SCL 90-R), anxiety (STAI), depression (EPDS), PTS symptoms (IES). Feedback	*N*=149 women in their 3rd trimester recruited. Exclusion criteria: none stipulated.	No main effect for condition for PTS symptoms, regardless of the level of medical

		phase, symptoms phase, education phase, re-entry phase, final phase). Questions asked and answered, signposted to additional input if required.	after Debriefing Questionnaire (FAD) completed at 28WG, 1-2days postpartum, 1 month postpartum, 3 months postpartum		intervention experienced during birth.
Small et al. (2000); UK	Took place before the woman was discharged from hospital (not state when). Targeted: mode of birth (operative delivery including elective CS).	Discussion of labour, birth and postnatal events and experienced. Conducted by a midwife. Content of debrief determined by the woman.	Depression (EPDS) assessed at 6 month postpartum	*N*= 917 women (*n*= 467 debriefing, *n*= 450 control). Exclusion criteria: women experiencing stillbirth or birthing an infant weighing <1500g, who were ill or whose infants were ill, not able to understand English or whose private obstetrician did not permit approach for the study.	No sig. diff in depression between debriefing and control group.
Small, Lumley & Toomey, (2006); UK	None- follow up to Small et al. (2000)	-	Depression (EPDS) 4-6 years after taking part in previous study (Small et al., 2000)	*N*= 534 women (264 from debriefing group, 270 from standard care). Inclusion based on previous participation in study (see Small et al., 2000).	No sig diff in severity of depression between either study group 4-6 years after intervention.

NOTE. WG= weeks gestation. Depression Anxiety and Stress Scale (DASS); Edinburgh Postnatal Depression Scale (EPDS); Emergency Caesarean Section (EmCS); Hospital Anxiety and Depression Scale (HADS); Impact of Event Scale (IES); Impact of Event Scale-Revised (IES-R); Mini-International Neuropsychiatric Interview- Posttraumatic Stress Disorder (MINI-PTSD); Posttraumatic Cognitions Inventory (PTCI); PTSD Symptom Scale- Self-Report (PSS-SR); Schedule for Affective Disorders (SADS); State-trait Anxiety Inventory (STAI); Symptom Checklist 90-R (SCL 90-R)

1

Figure 1. Flowchart depicting selection process for papers in the review