

Postnatal debriefing: Have we thrown the baby out with the bath water?

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Abstract

Postnatal debriefing is offered by 78% of maternity services in the UK despite little evidence from randomised controlled trials (RCTs) that it is effective. RCTs in this area have applied debriefing as a prophylactic to all or high risk women, rather than as a treatment for women who request it. This pragmatic trial therefore evaluated existing postnatal debriefing services that provide debriefing as a treatment for women who request it. Forty-six women who met criterion A for posttraumatic stress disorder (PTSD) and requested debriefing 1.3-72.2 months (median 16 weeks) postpartum completed measures of depression, PTSD, support and negative appraisals of the birth before and one month after debriefing. Women were compared with others who gave birth in the same hospitals during the same time period (n = 34), who met criterion A for PTSD but had not requested debriefing. Results showed PTSD symptoms reduced over time in both groups but greater decreases were observed in women who attended debriefing. Debriefing also led to reduction in negative appraisals but did not affect symptoms of depression. Therefore, results suggest providing debriefing as a treatment to women who request or are referred to it may help to reduce symptoms of PTSD.

Introduction

Debriefing covers a range of interventions that usually comprise a single, semi-structured intervention that occurs within four weeks of a traumatic event. The use of debriefing has attracted much controversy due to the lack of robust evidence that it is effective (Wessely & Deahl, 2003). Reviews of randomised controlled trials (RCTs) conclude there is little evidence debriefing is effective, and some evidence it may result in increased symptoms (Rose, Bisson, Churchill, & Wessely, 2002). Guidelines for the treatment of PTSD therefore recommend against the use of debriefing (National Institute for Health and Clinical Excellence, 2005). However, proponents of debriefing argue that relying purely on evidence from RCTs is limited because they are carried out under conditions that are divorced from the naturalistic setting in which debriefing would usually occur (Wessely & Deahl, 2003). Research guidelines therefore encourage the testing of complex interventions both by RCTs and in uncontrolled clinical settings (Medical Research Council, 2000).

Despite controversy over the efficacy of debriefing there are areas of healthcare where debriefing is still used. One such area is postnatal maternity care. Postnatal debriefing typically involves a midwife going through a woman's birth events with her, usually with the medical notes available. Postnatal debriefing under various guises is offered by up to 78% of hospitals in the UK (Ayers, Claypool, & Eagle, 2006; Steele & Beadle, 2003). Evidence regarding the efficacy of postnatal debriefing is inconsistent. Six RCTs have evaluated postnatal debriefing using a range of eligibility criteria and outcomes. Four trials found debriefing had no effect on outcomes such as depression, PTSD, quality of life, parenting stress, or fear of childbirth (Kershaw, Jolly, Bhabra, & Ford, 2005; Priest, Henderson, Evans, & Hagan, 2003; Selkirk, McLaren, Ollerneshaw, McLachlan, & Moten, 2006; Small, Lumley, Donohue, Potter, & Waldenstrom, 2000; Small, Lumley & Toomey, 2006). In contrast, two trials found postnatal debriefing was effective (Gamble et al., 2005; Lavender & Walkinshaw, 1998). This may be due to methodological factors. For example, Gamble et al. (2005) restricted their sample to women who had a traumatic birth (i.e. fulfilled DSM-IV PTSD criterion A) and used two debriefing sessions four to six weeks apart. In this trial debriefing led to reduced symptoms of PTSD, depression, stress and self-blame three months later.

Despite inconsistent evidence there are reasons why postnatal debriefing is so widely offered. First, studies consistently find that women like postnatal debriefing and evaluate it as helpful (Small et al., 2000). It fits well with a stepped-care treatment approach and offers the opportunity to identify women who need referral for further psychological treatment. In practice, postnatal debriefing is only provided for women who request or are referred for it. In this way, it probably functions more as a treatment than as a prophylactic so may be more effective under these circumstances. Clinical recommendations made on the basis of research applying debriefing as a prophylactic may therefore be 'throwing the baby out with the bath water'. However, there is clearly a gap between evidence and maternity practice, which is concerning (Rowan, Bick, & Bastas, 2007). It is therefore imperative to evaluate the efficacy of postnatal debriefing as currently practised. To do this, a number of conceptual and methodological issues need to be considered – both in terms of interpreting existing evidence as well as examining current practice.

First, there is no clear definition of what postnatal debriefing should include (Alexander, 1998). Postnatal debriefing services are provided under various labels, such as 'postnatal debriefing', 'birth afterthoughts' or 'birth reflections'. In practice these interventions range from active listening to women's birth experiences to more structured interventions

(Steele & Beadle, 2003). Second, timing of debriefing interventions may be important in whether they are effective. Symptoms of PTSD usually appear shortly after the trauma, but there can be a delay of six months or more. Many people with initial symptoms spontaneously recover during the months after the event (Rothbaum & Foa, 1993). Although debriefing was initially conceptualized as occurring within four weeks of a traumatic event, evidence in other contexts suggests that if it is offered too soon the trauma may still be operating. Hence the intervention may prolong distress and lead to the development of a 'catastrophic memory' (Shalev, 2000). In the postnatal literature, debriefing sessions have been provided anything from 72 h to 10 weeks after birth (Kershaw et al., 2005; Small et al., 2000). Thus, in studies where debriefing takes place shortly after birth, symptoms may not yet have arisen, women may not have enough emotional distance from the events of birth to valuably process them, or the intervention may be given to women who do not need it because their symptoms would spontaneously resolve. In clinical practice, postnatal debriefing is nearly always provided when a woman requests or is referred to it so may have a very different effect.

A third issue is the purpose of debriefing and how it is applied. Using debriefing as a prophylactic, as some studies have done, assumes that everyone who has been through a potentially traumatic event will benefit from debriefing. Given the large individual variation in responses to traumatic events, this type of approach is unlikely to benefit everyone, which may explain the lack of effectiveness of debriefing under these circumstances (Priest et al., 2003; Rose et al., 2002; Selkirk et al., 2006). An alternative approach is to use debriefing in high risk groups only. This approach has been used in four postnatal studies which restricted their samples to high risk women on the basis of parity (Kershaw et al., 2005; Lavender & Walkinshaw, 1998), operative birth (Kershaw et al., 2005; Small et al., 2000), or fulfilling DSM criterion A (Gamble et al., 2005). When used this way evidence is mixed, with two studies finding debriefing reduced symptoms of PTSD and depression (Gamble et al., 2005; Lavender & Walkinshaw, 1998); and the remaining studies finding no effect on outcomes (although these studies did not measure PTSD).

Finally, if debriefing is used as a treatment then it is assumed that only those with psychological problems will benefit. This is probably closest to what happens in clinical practice where women who request postnatal debriefing are likely to have high levels of affect or psychological problems related to birth. However, the use of postnatal debriefing as a treatment has not yet been evaluated. The current study therefore aimed to evaluate postnatal debriefing as it occurs in healthcare practice. Women attending one of two postnatal debriefing services completed measures before and one month after debriefing. To ensure that improvements in PTSD symptoms were not due to time alone, these women were compared to women who met criterion A for PTSD but who did not request or receive postnatal debriefing. A further purpose of the comparison group was to examine differences between women who want debriefing and those who do not, as research suggests women with PTSD following birth may have lower levels of social support and higher levels of birth interventions (Ford, Ayers, & Bradley, 2010; Wijma, Soderquist, & Wijma, 1997). Mechanisms of change were examined by looking at social support and negative appraisals suggested as important by theories of PTSD (Ehlers & Clark, 2000). In keeping with this, it was hypothesized that debriefing would not reduce symptoms of depression but would reduce symptoms of PTSD and negative appraisals.

Materials and methods

This study evaluated midwife-led postnatal debriefing services in two NHS trusts. Women who met criteria for a traumatic birth and attended debriefing ($n = 46$) were compared to a group of women who also met criteria for a traumatic birth but did not want debriefing ($n = 34$). Symptoms of PTSD, depression, support and negative appraisals were measured before

debriefing (or on entry to the study for the comparison group) and one month later. Ethical approval was obtained from the Combined NHS Research Ethics Committee.

Participants were recruited from two NHS hospital trusts in South East England. Any woman who has given birth in these Trusts can request a debriefing appointment. Inclusion criteria were that women met criterion A for PTSD (American Psychiatric Association, 2000), were over 18 years old and were able to read and write English fluently. The debriefing group comprised women who requested or were referred to the postnatal debriefing service offered by either hospital. The comparison group included women who gave birth in the same NHS Trust during the research period, met criterion A, but had not asked for or been referred to debriefing. Once a woman had requested an appointment, she was sent an appointment for debriefing, an invitation to take part in the study, information sheet, consent form, questionnaires and reply-paid envelope. Questionnaires were completed before the debriefing intervention. All women who returned the first set of questionnaires and consent forms were sent the second set of questionnaires one month after their debriefing appointment. Comparison women were recruited on the postnatal wards by the same midwives and given the same pack to complete approximately six weeks after birth. They were then sent the second pack one month later. All women completed questionnaires at both time points, one month apart, regardless of whether they received the intervention.

Questionnaires were chosen for reliability, validity and appropriateness for postnatal women. *Depression* was measured using the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987) a 10-item questionnaire (range 0-30) where a cut-off of 13 or more has a 60-100% probability of meeting clinical criteria for depression (Harris, Huckle, Thomas, Johns, & Fung, 1989). Reliability in the current sample was high ($\alpha = .90$). *PTSD* was measured using the PTSD Symptom Scale- Self Report (PSS-SR; Foa, Riggs, Dancu, & Rothbaum, 1993) a 17-item scale (range 0-51) which measures DSM-IV symptoms of re-experiencing, avoidance and numbing, and arousal (APA, 2000). The scale was modified to refer to birth and questions added to measure criterion A. In order for the criterion A to be met women had to report perceived threat of physical injury or danger to their own or their baby's life during birth; and responses of helplessness or terror. Internal reliability was high ($\alpha = .92$). *Negative appraisals* were measured using the Posttraumatic Cognitions Inventory (PTCI; Foa, Ehlers, Clark, Tolin, &

Orsillo, 1999) a 33-item scale (range 33-231) which measures negative cognitions about self; negative cognitions about the world; and self-blame. Higher scores indicate more negative cognitions. Internal reliability was excellent ($\alpha = .97$). *Perceived support* was measured using the Significant Others Scale (SOS; Power, Champion, & Aris, 1988) which assesses emotional and practical support from up to seven significant people (e.g. mother, partner). Respondents rate actual levels of support received and ideal levels of support desired from each person (range 1-7). A discrepancy score is calculated to give an index of the match between ideal and received support, where higher scores indicate less than ideal support. Internal reliability was high ($\alpha = .90$).

Debriefing intervention

Debriefing sessions were one-to-one sessions provided by one of two midwives with specialist training. One midwife was trained in counselling techniques and the second midwife in cognitive behavior techniques and solution-focused therapy. During debriefing women were offered the opportunity to discuss any aspect of the pregnancy and birth, their feelings and emotions, concerns and future births if appropriate. Their medical notes were available to help clarify events and provide more information. Sessions took place 1.3-72.2 months after birth, determined by when women requested or were referred to debriefing (median 16 weeks), and lasted 1-1.5 h. Information on support services was provided and women referred to psychological services if necessary (although NHS psychological treatment would not have been provided during the study time frame). There were no significant differences between the two midwife debriefing services in any of the outcomes.

Analyses

Many outcome variables were skewed so nonparametric tests were used where possible. For the main analyses, repeated measures ANOVA was used to examine differences between groups (comparison vs. debriefing) on variables over time (time one vs. time two). Skewed data were transformed as appropriate. Means are reported from the untransformed data to enable easier interpretation. Statistical values are based on transformed data.

Results

Significant differences between the debriefing and comparison group in demographic and obstetric characteristics are given in Table 1.

It can be seen that women who attended debriefing were older, had slightly longer pregnancies, a greater proportion of caesarean deliveries, were more likely to consider birth worse than expected, and worse than previous births (if applicable). The debriefing group also had a longer time since birth, as would be expected from a self-referring sample. There were no differences between groups on marital or socio-economic status, level of education, employment, ethnicity, parity, type of conception, time taken to conceive, duration of labour and whether women were returning to work

Most demographic and obstetric characteristics were not associated with depression, PTSD or negative appraisals at both

time points. The exception was longer time since birth which was associated with more symptoms. Time since birth was therefore entered as a covariate in the main analyses but did not change the pattern of results and is therefore not reported.

Postnatal depression and PTSD

The proportion of women who met criteria for PTSD and depression is reported in Table 2. PTSD and depression was more prevalent in the debriefing group. Approximately half of women who reported PTSD also reported severe depression. Results of the effects of debriefing on symptoms of PTSD, depression and negative appraisals are given in Table 3. There was a significant main effect of group, whereby women in the debriefing group had significantly more symptoms of depression ($F(1,73)=7.71$, $\eta^2 = .10$, $p < .01$) and PTSD ($F(1,77)=24.53$, $\eta^2 = .24$, $p < .001$) irrespective of time. There was also a significant effect of time on symptom reduction in both groups for depression ($F(1,73)=7.01$, $\eta^2 = .09$, $p < .05$) and PTSD ($F(1,77)=10.36$, $\eta^2 = .12$, $p < .01$). In line with hypotheses, women in the debriefing group had a greater reduction in PTSD symptoms than women in the comparison group ($F(1,113)=6.63$, $\eta^2 = .06$, $p < .05$). This effect appears to be due to reduced re-experiencing ($F(1,77)=9.73$, $\eta^2 = .11$, $p < .001$), rather than avoidance ($F(1,77)=2.12$, $\eta^2 = .03$, $p = .15$) or arousal symptoms ($F(1,77)=.055$, $\eta^2 = .01$, $p = .46$). There was no significant interaction between group and time on depressive symptoms, indicating the reduction in depression was similar in both groups ($F(1,73)=0.24$, $\eta^2 = .003$, $p = .62$).

Table 1

Demographic and obstetric characteristics in women who attended or did not attend debriefing.

			Debriefing" % (n)	Comparison" % (n)	Significance
Age	Range 18--42	Mean (SD)	34.22 (4.30)	31.06 (5.53)	<i>p</i> < .01
Gestation (weeks)	Range 34--43	Mean (SD)	40.31 (1.51)	39.00 (2.35)	<i>p</i> < .05
Time since birth (weeks)	Range 1--325	Mean (SD)	47.54 (68.50)	6.70 (2.10)	<i>p</i> < .001
		Median	16	7	
Type of delivery	Vaginal		52.17% (24)	61.76% (21)	<i>p</i> < .05
	Elective caesarean		4.35% (2)	17.65% (6)	
	Emergency caesarean		43.48% (20)	20.59% (7)	
Perception of birth	Better than expected		4.88% (2)	33.34% (11)	<i>p</i> < .01
	Same as expected		17.07% (7)	30.30% (10)	
	Worse than expected		78.05% (32)	36.36% (12)	
Perception of birth compared with previous births	Better		2.63% (1)	15.15% (5)	<i>p</i> < .05
	Same		2.63% (1)	6.06% (2)	
	Worse		21.05% (8)	0.00% (0)	
	Not applicable		73.68% (28)	78.79% (26)	

• Due to missing data debriefing group *n* ranges from 36 to 46; comparison group *n* ranges from 25 to 34.

Table 2 Proportion of women with PTSD and depression.

	Debriefing (n = 46)		Comparison (n= 34)	
	Time 1 % (n)	Time 2 % (n)	Time 1 % (n)	Time 2 % (n)
A Stressor criterion	100.0% (46)	87.0% (40)	100.0% (34)	76.5% (26)
B Re-experiencing	100.0% (46)	87.0% (40)	52.9% (18)	47.1% (16)
C Avoidance/numbing	63.0% (29)	52.2% (24)	23.5% (8)	20.6% (7)
D Arousal	80.4% (37)	82.6% (38)	61.8% (21)	50% (17)
PTSD criteria (A-D)	60.9% (28)	37.0% (17)	17.7% (6)	14.7% (5)
Depression*	37.2% (16)	20.9% (9)	15.2% (5)	12.1% (4)
PTSD and depression	30.4% (14)	15.2% (7)	8.82% (3)	5.9% (2)

*EPDS score >13

h Due to missing data debriefing group *n*=43; comparison group *n*=33.

Negative appraisals

The debriefing group had significantly more negative appraisals of their births than the comparison group irrespective of time ($F(1,70)=13.28$, $11p^2=.16$, $p<.01$). There was also a significant reduction in negative appraisals over time irrespective of group ($F(1,70)=5.28$, $11p^2=.07$, $p<.05$). In line with hypotheses, there was a significant interaction between group and time, indicating the debriefing group had a greater reduction in negative appraisals ($F(1,70)=10.75$, $11p^2=.13$, $p<.01$).

Social support

Table 4 shows ideal and actual support for both women in both groups. Women in the debriefing group reported larger discrepancies between actual and ideal levels of emotional ($t(78)=3.28$, $p<.01$) and practical support ($t(78)=2.00$, $p=.05$). This appears to be due to women in the debriefing group receiving less support rather than having higher ideal levels of support to women in the comparison group. In the whole sample, a discrepancy in support was associated with depression, PTSD and negative appraisals.

Discussion

This is the first study to evaluate whether postnatal debriefing is effective when used in naturally heterogeneous clinical settings. All women experienced a traumatic birth but women in the debriefing group were more likely to have symptoms of PTSD and depression. During birth they were more likely to have had caesarean delivery and considered their experience of labour worse than expected, or worse than previous experiences of labour. PTSD symptoms and negative appraisals of the birth decreased significantly more in the debriefing group one month later. In contrast, debriefing did not affect symptoms of depression. This is consistent with previous research showing postnatal debriefing does not affect depression (Kershaw et al., 2005; Priest et al., 2003; Selkirk et al., 2006) and is not surprising, given that debriefing interventions were designed to prevent the development of PTSD not depression.

The results on the effect of postnatal debriefing raise a number of issues, including the efficacy of debriefing as a treatment, the time at which it is offered, whether this approach is best conceptualized as “debriefing” and the mechanisms of change. These are examined in more detail below.

The efficacy of debriefing when used as a treatment

The results suggest debriefing may be effective when used as a treatment for people who have moderate or severe symptoms of PTSD – as opposed to a prophylactic for everyone. This approach fits with a stepped-care model of

healthcare where people who need further treatment can be identified and referred to psychological services if necessary. A review of postpartum counselling interventions found that this is generally the case and debriefing sessions are used to refer women experiencing more profound distress to additional services (Gamble & Creedy, 2004).

The timing of debriefing

The results suggest that if postnatal debriefing is offered at a time to suit the woman, most chose to wait on average 16.5 weeks. This time frame is greater than the one month limit imposed in previous studies of efficacy. The wide range of time since birth suggests large individual variation in length of time required before women feel ready to discuss their birth experience. It has been suggested that women may need at least three weeks to develop a narrative of the birth, and integration of a traumatic event on an emotional and cognitive level may not be possible in the first few days after the event (Creasy, 1997; Shalev, 2000). This may be particularly pertinent for postnatal women who are likely to be exhausted and recovering physically as well as having to cope with the demands of a new baby. The birth of a new baby also usually has positive aspects which may further prolong dealing with negative aspects the mother may be experiencing (Boyce & Condon, 2000). The length of time since birth also suggests that women who request debriefing may be those whose symptoms do not dissipate naturally over time and who therefore need and respond to intervention more positively.

Table 3

Depression, PTSD and negative appraisals in women who did or did not receive debriefing.

		Debriefi	Debriefin	Compari	Compari	ANOV		
		Time 1	Time 2	Time 1	Time2	Time	Condition	Time x
Depression	Mean (SD)	11.09	7.92	7.09	5.91	<i>n</i> <	<i>n</i> < .01	+i/c
	Median	10.50	7.00	6.00	5.00			
PTSD total	Mean (SD)	19.08	14.15	7.03	6.32	<i>n</i> <	<i>n</i> < .001	<i>n</i> < .05
	Median	18.00	10.50	4.50	4.00			
PTSD intrusions	Mean (SD)	6.65	4.70	1.58	1.47	<i>n</i> <	<i>n</i> < .001	<i>n</i> < .01
	Median	6.00	3.00	1.00	0.00			
PTSD avoidance	Mean (SD)	6.89	4.96	2.44	2.38	ns	<i>n</i> < .01	+i/c
	Median	5.50	3.00	2.00	1.00			
PTSD arousal	Mean (SD)	5.54	4.50	3.00	2.47	<i>n</i> <	<i>n</i> < .01	+i/c
	Median	6.00	4.00	2.50	2.00			
Negative	Mean	96.93	78.64	52.67	55.77	<i>n</i>	<i>n</i> < .01	<i>n</i> < .01
	Median	92.00	70.50	44.00	41.00			

a Due to missing data debriefing group *n* ranges from 42 to 46; comparison group *n* ranges from 31 to 34.

Table4

Ideal support and actual support received (emotional and practical).

Range= 1-7	Debriefing Mean(SD)	Comparison Mean (SD)	Significance
Emotional support received	4.84 (1.01)	5.70 (0.79)	p <.001
Ideal emotional support	6.20 (0.65)	6.46 (0.66)	ns
Emotional support discrepancy	1.36 (0.90)	0.76 (0.68)	p < .01
Practical support received	4.68 (1.10)	5.48 (0.97)	p < .01
Ideal practical support	5.92 (0.80)	6.33 (0.58)	p < .05
Practical support discrepancy	1.24 (0.88)	0.84 (0.88)	p=.05

Conceptualizing postnatal debriefing

Due to the nature of clinical practice, the debriefing model used in this study was not well-defined and may not have been consistently applied. Both midwives had a broad approach of going through the events of birth and giving women time to discuss experiences and concerns. These midwives had different training backgrounds, although there were no differences in how effective each midwife was. This suggests any form of specialist psychotherapy training may help midwives do effective postnatal debriefing, although research considering length, type and expense of training is necessary. Following on from this, it could be argued that the intervention evaluated here does not constitute debriefing as it was originally defined. This is reflected in the various names given to postnatal debriefing services such as 'birth afterthoughts'. There is certainly a need for postnatal debriefing to be clearly defined in terms of content. Nonetheless, it is encouraging that there was no difference in outcomes between the two services included here. This implies that a single session with a woman to go over her birth experience with a healthcare professional may reduce PTSD symptoms, regardless of treatment fidelity (at least in this study).

Processes of change

This study examined two processes of change: negative appraisals and social support. Debriefed women had greater decreases in negative appraisals and, in the whole sample, poor support was associated with PTSD, depression and negative appraisals. This is consistent with theoretical and empirical studies of dysfunctional beliefs (Ehlers & Clark, 2000; Ford et al., 2010); with meta-analyses of research in non-obstetric samples showing support is strongly correlated with PTSD (Brewin, Andrews, & Valentine, 2000); and research showing support during birth is associated with postnatal PTSD (Ford & Ayers, 2011). Further research is needed to establish how social support for postnatal women influences PTSD – addressing the balance of positive social interactions aiding recovery and negative interactions contributing to its continuation.

Methodological issues

The current study has a number of strengths and limitations that have bearing on the results. The main strength is that it is the first study to examine the effectiveness of postnatal debriefing in naturally heterogeneous clinical settings. The main issues that have bearings on the results are that women who attended debriefing differed on a number of variables to women in the comparison group—in that they had more symptoms of psychopathology, were older and had different obstetric experiences. Therefore improvements in PTSD following debriefing may be due to debriefing and/or women's characteristics. However, these demographic and obstetric variables were not independently associated with PTSD so it is unlikely that improvements are due purely to these factors. A second issue is that improvement in PTSD in the debriefing group could be due to regression to the mean. Similarly, this study does not allow us to elucidate the 'active' element of debriefing and (assuming actual improvement was observed) this could be due to many things such as support, placebo, or the content of the debriefing session. It is therefore imperative that this study is extended by looking at women who want debriefing and either **(i)** attend debriefing or **(ii)** form a waiting list control group. Including a third condition such as an educational session would also elucidate whether debriefing *per se* is effective or whether it is support/placebo that is important.

In conclusion, this is the first study of the effectiveness of postnatal debriefing in naturally heterogeneous clinical

settings. Results showed postnatal debriefing at least six weeks after birth is associated with reduced PTSD symptoms one month later. These results are in contrast to the majority of RCT research on the efficacy of postnatal debriefing when applied as a prophylactic, but add to the more limited evidence that under certain circumstances post-natal debriefing may be effective in reducing PTSD (Gamble et al., 2005; Lavender & Walkinshaw, 1998). The results of this study challenge the idea that debriefing should be supplied early to all women. It is possible that the effectiveness of debriefing in clinical practice may be particularly associated with the sample and timing of the intervention. However, further research is needed to replicate these results, test the possible mechanisms of change, and clarify whether it is debriefing *per se* or a supportive session with a midwife that accounts for reductions in PTSD symptoms.

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