

Exploring self help interventions following traumatic experiences

Sarah Blainey

The results, discussions and conclusions presented herein are identical to those in the printed version. This electronic version of the thesis has been edited solely to ensure conformance with copyright legislation and all excisions are noted in the text.

The final, awarded and examined version is available for consultation via the

University Library

The results, discussions and conclusions presented herein are identical to those in the printed version. This electronic version of the thesis has been edited solely to ensure conformance with copyright legislation and all excisions are noted in the text.

The final, awarded and examined version is available for consultation via the
University Library



This thesis is protected by the Copyright, Designs and Patents Act 1988. No reproduction is permitted without consent of the author. It is also protected by the Creative Commons Licence allowing Attributions-Non-commercial-No derivatives.

- A bound copy of every thesis which is accepted as worthy for a higher degree, must be deposited in the University of Sheffield Library, where it will be made available for borrowing or consultation in accordance with University Regulations.
All students registering from 2008-09 onwards are also required to submit an electronic copy of their final, approved thesis. Students who registered prior to 2008-09 may also submit electronically, but this is not required.

Author: [] Dept: []

Thesis Title: [] Registration No: []

For completion by all students:

Submit in print form only (for deposit in the University Library): []
Submit in print form and also upload to the White Rose eTheses Online server: In full [] Edited eThesis []

Please indicate if there are any embargo restrictions on this thesis. Please note that if no boxes are ticked, you will have consented to your thesis being made available without any restrictions.

Embargo details: (complete only if requesting an embargo to either your print and/or eThesis) Embargo required? Length of embargo (in years)
Print Thesis Yes [] No []
eThesis Yes [] No []

Supervisor: I, the supervisor, agree to the named thesis being made available under the conditions specified above.

Name: [] Dept: []

Signed: [] Date: []

Student: I, the author, agree to the named thesis being made available under the conditions specified above.

I give permission to the University of Sheffield to reproduce the print thesis in whole or in part in order to supply single copies for the purpose of research or private study for a non-commercial purpose.

I confirm that this thesis is my own work, and where materials owned by a third party have been used copyright clearance has been obtained. I am aware of the University's Guidance on the Use of Unfair Means (www.sheffield.ac.uk/its/design/unfair)

I confirm that all copies of the thesis submitted to the University (including electronic copies on CD/DVD) are identical in content.

Name: [] Dept: []

Signed: [] Date: []

For completion by students also submitting an electronic thesis (eThesis):

I, the author, agree that the University of Sheffield's eThesis repository (currently WREO) will make my eThesis available over the internet via an entirely non-exclusive agreement and that, without changing content, WREO may convert my thesis to any medium or format for the purpose of future preservation and accessibility.

I, the author, agree that the metadata relating to the eThesis will normally appear on both the University's eThesis server and the British Library's ETHOS service, even if the thesis is subject to an embargo. I agree that a copy of the eThesis may be supplied to the British Library.

I confirm that the upload is identical to the final, examined and awarded version of the thesis as submitted in print to the University for deposit in the Library (unless edited as indicated above).

Name: [] Dept: []

Signed: [] Date: []

THIS SHEET MUST BE BOUND IN THE FRONT OF THE PRINTED THESIS BEFORE IT IS SUBMITTED

Declaration

This work has not been submitted for any other qualification or to any other institution.

Structure and Word Counts

Literature Review	7968
References	1502
Appendix	442
Research Report	11945
References	1682
Appendices	3684
Total (excluding references and appendices)	19913
Total (including references and appendices)	27223

Abstract

The literature relating to interventions aimed at reducing or ameliorating distress after experiencing a post traumatic event was reviewed. Both preventative and intervention approaches have been investigated. No evidence was found for the effectiveness of population wide approaches to reduce later development of post traumatic stress symptoms. Interventions for early or sub-clinical levels of distress following a traumatic event were more effective. Good quality evidence only existed for cognitive behavioural approaches, although writing approaches appeared promising. All studies reviewed had a number of conceptual issues and methodological difficulties, including difficulties with defining post traumatic distress and outcome measurement. Areas for future research, including qualitative exploration of participants' experiences of such approaches, are discussed.

Qualitative exploration of the experience of writing about a traumatic experience and sharing this online was undertaken. Twelve women were interviewed both after writing and after posting their writing online. Template analysis was used to develop nine themes reflecting a journey from deciding to write and share their stories, the process of writing and the impact of writing and sharing their stories online, both immediate and delayed. An overarching theme developed reflecting some women's feelings that they may not be justified in feeling traumatised. The contribution of these results to the understanding of writing about traumatic experiences and sharing these online is discussed, along with the implications for self help and support groups. Directions for further research are suggested, including

further understanding of factors that may impact on the utility of writing about a traumatic event.

Acknowledgements

I would like to thank the participants who agreed to take part in this study and gave up their time to be interviewed. I would also like to thank Maureen Treadwell of the Birth Trauma Association for her help, support and enthusiasm. I would like to thank the BTA for allowing me to recruit participants through their website. I would like to thank Pauline Slade for providing supervision and support throughout this project. Finally, I would like to thank my family and friends for supporting me through this process.

List of Contents

Literature review: The evidence for low level approaches to preventing post traumatic stress responses

Introduction	1
Method	4
Inclusion and exclusion criteria	4
Quality rating	5
Results	5
Review	6
Preventative Approaches	6
Quality Ratings	11
Intervention Approaches	15
CBT Based Studies	28
Non-CBT Studies	32
Discussion	35
Methodological Issues	36
Conceptual Issues	37
Conclusions	40
Clinical Implications	40
Implications for future research	41
References	43
Appendix	51

Research Report: Exploring the process of writing about and sharing traumatic birth experiences online: a qualitative investigation of women's experiences

Abstract	53
Introduction	55
Aims	62
Method	63
Participants	63
Procedure	63
Development of the Interview Schedules	67
Measures	67
Service User Involvement	68
Data Analysis	68
Quality	70
Reflexivity	70
Researcher Characteristics	71
Ethics	71
Participant Demographics	72
Measures	73
	74

Results	
Interview findings	74
1. Deciding to write my story	77
2. Choosing to share my story on the BTA website	78
3. The process of writing	82
4. Writing was emotional	84
5. The impact of writing	85
8. Seeing it online was strange at first but now I'm glad I did it	87
9. I would recommend writing for other women	88
10. Overarching theme: Am I justified in being traumatised?	89
Discussion	91
Theoretical Implications	92
Clinical Implications	97
Implications for the BTA	98
Strengths and Limitations	99
Future Research Directions	100
Conclusions	102
References	103
Appendix 1: Ethics approval	109
Appendix 2: Initial invitation email to potential participants	110
Appendix 3: Initial email contact to potential participants	111
Appendix 4: Information sheet and informed consent form	112
Appendix 5: Impact of Events Scale – Revised	115
Appendix 6: Interview Schedules and Demographics Form	117
Appendix 7: Example coding of a transcript and initial codes for a participant	122

The evidence for low level approaches to preventing post traumatic stress responses

Introduction

Many people experience an event that could be seen as traumatic during their lives, with estimates ranging from 40% to 92% of the population (Breslau, 2009). Various events may be seen as traumatic and can include events societally viewed as positive, such as giving birth (Olde, van der Hart, Kleber, & van Son, 2006).

Following exposure to an event perceived as traumatic, most people initially experience high levels of distress including involuntary re-experiencing of the event, increased arousal and avoidance of related stimuli. For most people, these responses recede over time (Bryant, 2003; Ehlers & Clark, 2003; Norris et al., 2009). However a minority do not experience a reduction in distress and remain affected by the experience. One way to understand these persistent responses to a traumatic event is using diagnostic criteria. Much of the research into factors associated with persistent distress following a traumatic experience has utilised the framework of the diagnostic category of Post Traumatic Stress Disorder (PTSD; American Psychiatric Association, 2000) This involves persistent involuntary re-experiencing of the event, increased arousal and avoidance of trauma related cues. Research looking at the development of PTSD has highlighted that subjective perception of the event as traumatic is key in the development and maintenance of symptoms (Peleg & Shalev, 2006). Psychological factors such as attributions made about the traumatic event (Halligan, Clark, &

Ehlers, 2002) are also important, along with social factors such as social support (Borja, Callahan, & Long, 2006) and cultural understandings of the event (Afana, Pedersen, Rønsbo, & Kirmayer, 2010; Helms, Nicolas, & Green, 2010).

PTSD symptoms can be very distressing and disabling, impacting on people's ability to live a normal life (Litz, 2008), even where people do not meet diagnostic criteria. This suggests that it is important to understand the impact of interventions targeted at people experiencing subclinical levels of distress in order to ameliorate the impact of traumatic events and prevent symptom escalation. Early intervention approaches may also be relevant here as these are generally focused on the reduction of later symptom development, where people do not necessarily meet diagnostic criteria, therefore potentially could be used at any point (see Appendix 1 for a glossary of terms as used in this review). Two previous reviews have looked at the evidence for early interventions following traumatic events.

A review of early psychological interventions for adult survivors of trauma (Ehlers & Clark, 2003) looked at the evidence for cognitive behavioural therapy (CBT) for people at risk of developing PTSD symptoms, based on early high levels of symptoms, or meeting Acute Stress Disorder criteria (ASD; a diagnosis similar to PTSD but diagnosed within three months of the event). This review suggested CBT to be an effective early intervention for reducing psychological distress following exposure to trauma, when appropriately targeted. This fits with evidence for CBT as a treatment for PTSD, as recommended in national guidance (NICE, 2005) and

demonstrated in meta-analytic reviews (Bisson et al., 2007; Bisson & Andrew, 2007).

More recently, a systematic review of randomised controlled trials of multiple session interventions within three months of exposure to trauma found that untargeted general population approaches were ineffective (Roberts, Kitchiner, Kenardy, & Bisson, 2009). When interventions were targeted to people with high levels of distress or meeting ASD diagnostic criteria, CBT was effective. This suggests it is unhelpful to offer immediate, unfocused interventions, however more targeted interventions may be useful. The present review overlaps in some ways with this review, however, the inclusion criteria were much narrower, suggesting a need to look more broadly at the evidence for early approaches following traumatic experiences, particularly newly developed approaches which may not yet have been evaluated in randomised controlled trials but may be applicable to persistent yet sub-clinical distress.

The aim of this literature review is to identify and evaluate the evidence for interventions targeted at reducing the impact of experiencing a traumatic event. In particular, this review will focus on interventions targeted at people with sub-clinical symptoms or distress levels, or who have recently experienced a traumatic event. Previous reviews have tended to focus on people who meet clear diagnostic criteria for ASD or PTSD or have only included randomised controlled trials within a short time limit. This review seeks to expand on these findings and be more inclusive in identifying potentially relevant interventions for people exposed to events perceived by them as traumatic.

Method

Search Strategy

Searches were carried out using PsycInfo, MedLine and Web of Science, from 1967 to 2012. The search terms used for trauma responses were: 'post traumatic stress', 'acute stress', and 'traumatic stress response.' These were combined with search terms for interventions: 'intervention', 'treatment', 'outcome', 'therapy', 'care' and 'self-help'.

Inclusion and Exclusion criteria

Inclusion criteria were:

- Reports of interventions in the aftermath of a traumatic event
- Adult population
- English language
- Published in a peer reviewed journal

Exclusion criteria were

- Reports of non-psychological interventions (i.e. pharmacological approaches)
- Inclusion of children or young people
- Interventions for complex or treatment resistant trauma
- Interventions aimed at working with childhood trauma or multiple and/or ongoing traumas
- Assessment of a critical incident stress debriefing approach, as there is evidence that such interventions can be harmful (Ehlers & Clark, 2003)

Quality Rating

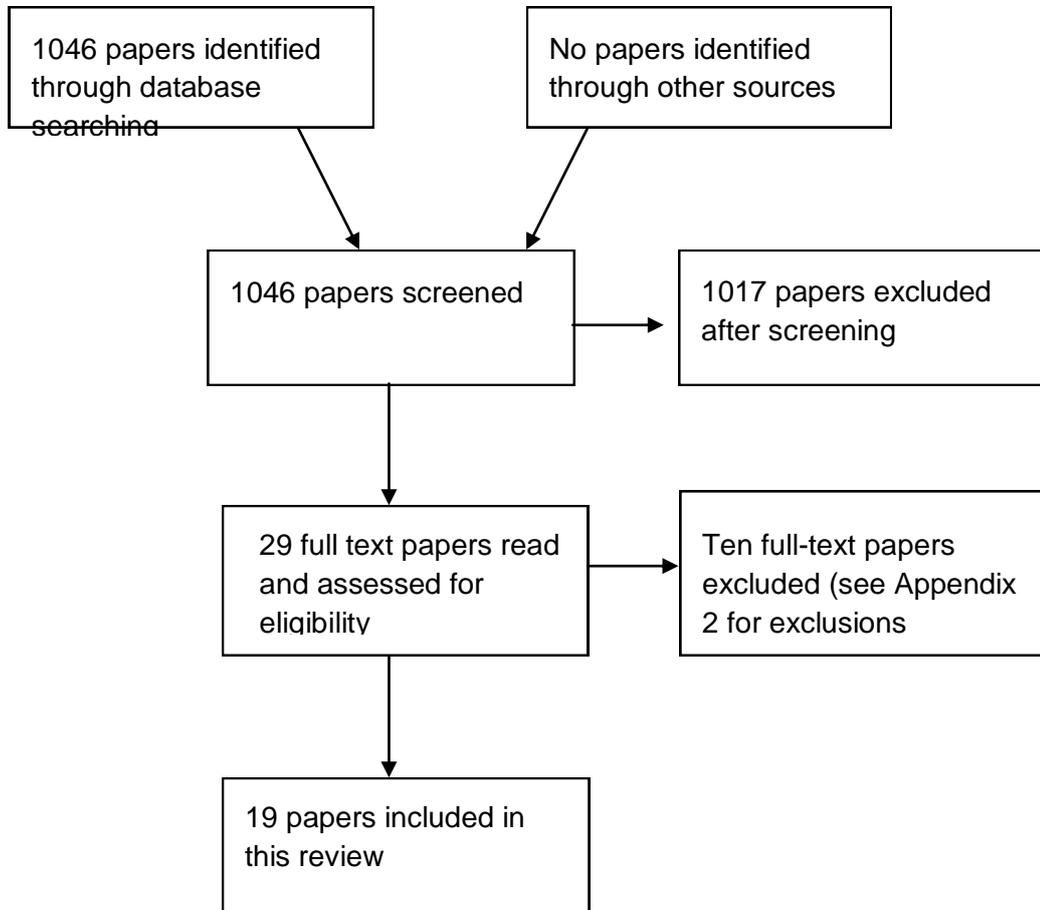
Papers were rated for quality using the rating scale developed by Downs & Black (1998; see Appendix 2 for the rating scale used). This was chosen as it is designed to rate the quality of both randomised and non-randomised studies and provides a cohesive checklist assessing reporting of the study, external validity, and internal validity covering bias and confounding.

Results

Searches identified 1046 papers. All abstracts were read. Papers were discarded if they did not meet inclusion criteria or met exclusion criteria. Discarded papers included population studies of the prevalence of particular types of trauma exposure, theoretical papers outlining models of understanding trauma responses, those that focused on trauma in children or adolescents, those that focused specifically on working with people who had experienced multiple traumas, those that used only pharmacological interventions or did not focus specifically on intervening following the experience of a traumatic event.

When all clearly irrelevant papers had been discarded, 29 papers remained. These were read and 10 further papers which did not meet inclusion criteria were discarded at this point (see Appendix 3 for a summary of papers excluded at this point). This left 19 papers. Figure 1 below shows the selection process.

Figure 1: Paper selection process (adapted from Moher, Liberati, Tetzlaff, Altman and the PRISMA Group, 2009)



Review

The papers identified can broadly be divided into those aimed at preventing the development of distress or symptoms and those which involved intervening once symptoms had developed.

Preventative approaches

Details of preventative approaches are outlined in table 1 below.

Table 1: Details of preventative approaches

Authors	Study objectives	Study type	Participants	Type of trauma	Intervention (number of participants)	Results	Outcome measures
Bernard et al., (2011)	To assess a brief CBT intervention to reduce symptoms of depression and trauma in mothers of babies in a neonatal intensive care unit (NICU) compared to usual care	Randomised controlled trial	56 mothers aged 18 or over of babies in the NICU who were expected to survive. Randomised to intervention or control group	Baby in NICU	Intervention: three 45-55 minute CBT sessions covering education, cognitive restructuring and relaxation (31) Control: treatment as usual. (25)	No significant differences seen between groups at follow up. The intervention group tended to show lower scores.	Stanford Acute Stress Reaction Scale, Davidson Trauma Scale, Beck Depression Inventory

Bugg, Turpin, Mason & Scholes, (2008)	To investigate expressive writing as an intervention to prevent development of PTSD in high risk population	Randomised controlled trial	1454 A&E attendees aged 18-65 who had experienced a traumatic event were invited. 214 consented, 148 met ASD criteria and were randomly assigned to writing (WI) or self help booklet control (I).	Assault, traffic accident or occupational injury	WI: three 20 minute sessions of writing about the traumatic event over consecutive days (72) and reading an eight page self help booklet I: Read the self help booklet only (76)	No differences seen on outcomes between groups over time. PTSD symptoms did reduce over time in both groups	The Posttraumatic Diagnostic Scale, World Health Organisation QoLBref (Brief Quality of Life measure), Hospital Anxiety and Depression Scale
Resnick et al., (2007)	To assess the impact of a brief video	Randomised controlled trial	225 women aged over 15 who had	Sexual assault	Video: treatment as usual plus a	Significantly lower self reported	PTSD Symptom Scale –Self-

	on the development of PTSD symptoms following sexual assault		been sexually assaulted and attended for a forensic medical examination		17 minute video describing the forensic examination, psychoeducation about possible reactions to rape (aimed at normalising responses) and suggestions of possible coping strategies. (97) Control: treatment as	levels of distress in women with a prior history of rape in video condition compared to controls. Less difference in women with no prior history of rape.	report, Beck Depression Inventory, Beck Anxiety Inventory, family resource scale
--	--	--	---	--	--	--	--

					usual. (108)		
Scholes, Turpin & Mason (2007)	To assess the utility of self help information in preventing PTSD in a high risk population	Randomised controlled trial	1934 A&E attenders (18-65 who had experienced a traumatic event were invited to participate. Participants screened for ASD and randomised to high-risk intervention or high-risk control if met ASD criteria. Low-risk controls who	Assault, traffic accident or occupational injury	Self help: eight page booklet giving information and CBT based advice about coping following a trauma (116) Control: No intervention, split into high risk (116) and low risk (111) based on meeting ASD diagnostic criteria	No differences seen between groups on measures. Symptoms scores reduced over time in all groups The high ASD groups were both more likely to report problems at follow up.	The Posttraumatic Diagnostic Scale, World Health Organisation QoLBref (Brief Quality of Life measure), Hospital Anxiety and Depression Scale

			didn't meet ASD criteria were also included.				
Turpin, Downs & Mason (2005)	To assess the utility of self help information in preventing PTSD development	Randomised controlled trial	2818 A&E attendees aged 16-65 who had experienced a traumatic event were invited. Blind randomisation to self help or control	Assault, traffic accident or occupational injury	Self help: eight page booklet giving information and CBT based advice about coping following a trauma (75) Control: No intervention (67)	No differences seen between groups on measures. Symptoms scores reduced over time in all groups	The Posttraumatic Diagnostic Scale, Hospital Anxiety and Depression Scale

Quality ratings

The quality rating scale used (Downs & Black, 1998) suggests a number of criteria for rating research quality. These include reporting, or the information given in the paper; external validity, or the representativeness and generalisability of the study; internal validity – bias, or attempts to avoid bias in the methodology; internal validity – confounding, or attempts to avoid selection bias; and power, or the ability of the design to ensure that any effects found are not due to chance. These aspects are broken down and scored 1 for present and 0 for absent, so a higher score represents higher quality. Table 2 shows the scores for each preventative study. Further discussion of the quality of the included papers is given below.

Table 2: Quality ratings for preventative studies

Authors	Reporting	External Validity	Internal validity – bias	Internal validity - confounding	Power	Total score (max 31)
	Total (max – 11)	Total (max - 3)	Total (max – 7)	Total (max – 6)	Total (max – 5)	
Bernard et al., (2011)	9	2	5	4	0	20
Bugg, Turpin, Mason & Scholes, (2008)	9	2	4	5	1	21
Resnick	8	3	3	4	1	19

et al., (2007)						
Scholes, Turpin & Mason (2007)	9	2	3	5	1	20
Turpin, Downs & Mason (2005)	9	2	4	5	1	21

A series of studies (Bugg, Turpin, Mason, & Scholes, 2009; Scholes, Turpin, & Mason, 2007; Turpin, Downs, & Mason, 2005) investigated early interventions aimed at reducing later PTSD symptoms following exposure to a single traumatic event. The first study (Turpin et al., 2005) investigated the effectiveness of providing a self-help information booklet following a traumatic event. No differences were found between those who received self help information and those who did not, suggesting natural recovery was not aided by the booklet.

Following this, (Scholes et al., 2007), the same self-help booklet was targeted to people meeting ASD criteria (to target those at high risk for later PTSD symptoms). Results were similar to those above, with no differences seen between groups over time. However, most people reported finding the booklet useful.

A third study (Bugg et al., 2009) compared a writing task to the self help booklet as a control. Results showed no differences between writing and the control on measures of PTSD, anxiety and depression or quality of life,

although again there were reductions over time. Interestingly, qualitative data showed that participants in the writing group felt the writing was useful, particularly with regard to managing feelings, moving on and looking at the whole story.

This series of studies suggests that community based early interventions aimed at preventing PTSD are unlikely to be successful, even when specifically targeted at individuals at high risk of later symptom development. These studies were of generally fairly high quality, and sufficiently powered to suggest that the results are reliable. However, with regard to internal validity biases, one problem is the very limited number of participants. Only about 10% of those approached opted in, and those who did not were more likely to be younger, male and had been assaulted, suggesting potential differences between participants and those who did not participate. This may impact on generalisability, although it is hard to see how these people might be reached. An interesting aspect of the studies is the feedback from participants that the educational booklet and the writing task were useful, even though they had no objective impact on symptoms. Clearly face validity, or the sense that something is doing what it is supposed to, is irrelevant if objective outcomes demonstrate it is ineffective, however, it may be useful to explore this further and understand what it is that people believe is useful about such tasks.

Further studies have looked at specific traumatic events likely to be associated with high levels of distress. One study looked at a brief video intervention for women who had been raped and presented for a forensic examination (Resnick et al., 2007). Women who watched the video and had

been raped before were less likely to experience post traumatic symptoms at a six month follow up, however this was not the case for women who had not been raped before. This finding is interesting, as it suggests that preventative interventions may be more useful for people who have previously experienced trauma. Women who have experienced sexual assault or rape more than once are much more likely to develop PTSD symptoms (Elklit & Christiansen, 2010). The women in the Resnick et al (2007) study who did benefit from this intervention therefore represent a group at relatively high risk of later distress, suggesting that early interventions such as this are most beneficial for specific subgroups of people. As with the series of community studies described above, in which earlier trauma was not assessed, this suggests interventions need to be carefully targeted to provide benefit.

Finally, a CBT based intervention aimed at preventing the development of PTSD in mothers of babies in neonatal intensive care (Bernard et al., 2011) found no significant differences in PTSD symptom scores between those in the intervention group and controls. The intervention group did show a tendency towards lower scores, suggesting that brief CBT might be helpful, however the follow up time in this study was very short, and it is not clear that there was enough time for any effect to be seen.

Overall, these studies suggest that there is little benefit to be gained from population wide preventative interventions, which is in keeping with previous review findings (Roberts et al., 2009). Interventions specifically targeted to people who are more likely to develop PTSD symptoms may be more likely to be effective. However, this is challenging as it is difficult to predict who is more likely to remain distressed by a traumatic event. The included studies

were all of reasonably high quality, giving weight to the finding that preventative interventions are unlikely to be useful. However most had a relatively short follow up time, making it impossible to know whether preventative interventions might have a longer term impact, and how these compare to long term natural recovery.

Intervention approaches

Intervention research has tended to concentrate on participants who meet criteria for ASD. Interventions have largely been CBT-focused, although four studies have investigated alternative approaches. Table 4 outlines the details of the studies included in this review.

Table 3: Details of studies outlining interventions after symptoms develop

Authors	Study objectives	Study type	Participants	Type of trauma	Intervention (number of participants)	Results	Outcome Measures
Bisson, Shepherd, Joy, Probert, & Newcombe, (2004)	To assess the efficacy of brief CBT for PTSD symptoms following physical injury	Randomised controlled trial	152 A&E attenders, aged 16-70 who had been physically injured and reported acute psychological distress on self-report questionnaires. Randomised to	Physical assault	CBT intervention: four 1 hour weekly sessions five to ten weeks after the injury consisting of education, reliving the trauma, cognitive restructuring (76) Control	Self rated PTSD symptoms were significantly lower in the intervention group at 13 months and lower (but not significantly) at three months.	The Posttraumatic Diagnostic Scale, Hospital Anxiety and Depression Scale, Impact of Events Scale

			intervention or control group		group: No intervention (76)		
Bryant, Harvey, Dang, Sackville, & Basten, (1998)	To compare CBT to supportive counselling (SC) for ASD as an intervention to reduce PTSD symptom development.	Controlled trial	24 people referred following trauma, aged 18-60, who met ASD criteria and allocated to CBT or SC	Non sexual assault or traffic accident	CBT: five 90 minute sessions including education, relaxation training, exposure, and cognitive restructuring (12); SC: five 90 minute sessions including education and general	Post-intervention and at follow-up, fewer people in the CBT group met PTSD criteria than in the SC group. Significant differences in scores on self-report measures between groups post-	Acute Stress Disorder Inventory, Impact of Events Scale, Beck Depression Inventory, State-Trait Anxiety Inventory and Dissociative Experiences Scale

					problem solving (12)	intervention and at follow up	
Bryant, Mastrodome nico, Felmingham, Hopwood, Kenny, Kandris, Cahill & Creamer (2008)	To compare prolonged exposure (PE) to cognitive restructuring (CR) for the treatment of ASD	Randomised controlled trial	90 people who had been referred following an assault or traffic accident and met criteria for ASD. Randomly allocated to interventions or control group	Non sexual assault or traffic accident	PE – imaginal and in vivo exposure to the trauma over five sessions (30); CR – restructuring of thoughts relating to the traumatic event, no exposure (30); control – waiting list (30)	PE group showed significantly better outcomes than CR and control group. CR group improved compared to controls, but less than PE group	Beck Depression Inventory, Beck Anxiety Inventory, Impact of Events Scale, and Post-Traumatic Cognitions Inventory

Bryant, Moulds, Guthrie & Nixon (2003)	To assess the efficacy of CBT for ASD in mild TBI where there is potential cognitive impairment	Randomised controlled trial	24 people referred following an RTA/non-sexual assault who met criteria for ASD and had had a mild TBI, aged 18-60, randomly assigned to control or CBT group	Non sexual assault or traffic accident	CBT: five 90 minute sessions including education, relaxation training, exposure, and cognitive restructuring (12); Supportive Counselling (SC): five 90 minute sessions including education and general problem solving	Post-intervention and at follow-up, fewer people in the CBT group met PTSD criteria than in the SC group. There were significant differences in scores on self-report measures between groups post-intervention and at follow up	Beck Depression Inventory, Beck Anxiety Inventory, Impact of Events Scale
--	---	-----------------------------	---	--	---	--	---

Bryant, Moulds, Guthrie & Nixon (2005)	To compare CBT with hypnosis (CBT+H) to standard CBT and supportive counselling for the treatment of ASD	Randomised controlled trial	87 people referred following trauma who met ASD criteria, aged 17-60, with no other psychiatric diagnosis. Randomised to CBT, CBT+H or SC	Non sexual assault or traffic accident	CBT: five 90 minute sessions including education, relaxation training, exposure, and cognitive restructuring (33) CBT+H: As above, with the addition of hypnotic induction prior to each exposure session (30) SC: five 90 minute	Both CBT and CBT-H participants scored lower on PTSD measures at the end of treatment and follow-up. PTSD rates not significantly different between groups at the end of treatment, nor was the % of each group with good end-	Stanford Hypnotic Clinical Scale, Beck Depression Inventory, Beck Anxiety Inventory, Impact of Events Scale, National Adult Reading Test
--	--	-----------------------------	---	--	---	--	--

					sessions including education and general problem solving (24)	state functioning.	
Bryant, Sackville, Dang, Moulds, & Guthrie (1999)	To dismantle the effective components of CBT for ASD by comparing prolonged exposure (PE), PE + anxiety management (PE+AM) and SC	Randomised controlled trial	66 people referred following trauma who met ASD criteria, aged 18-60, randomised into one of the 3 groups	Non sexual assault or traffic accident	PE: five 90 minute sessions of imaginal and in vivo exposure to the trauma (14) PE+AM: as above, with the addition of anxiety management education (15)	Post intervention and at follow up, fewer participants in the PE and PE+AM groups met PTSD criteria than in the SC group and scored better on self-report measures at	Beck Depression Inventory, Impact of Events Scale, Stat-Trait Anxiety Inventory

					SC: five 90 minute sessions including education and general problem solving (16)	end and follow-up than SC participants.	
Ehlers, Clark, Hackmann, McManus, Fennell, Herbert & Mayou (2003)	To test CBT compared to self help (SH) and repeated assessment (RA) as early interventions for PTSD	Randomised controlled trial	97 people aged 18 - 65, meeting criteria for PTSD. Twelve improved with assessment/self-monitoring. Remaining 85 randomly	Traffic accident	CBT: ≤ twelvesessions (mean – nine) and ≤ three booster sessions (mean – 2.4) including reliving, cognitive restructuring and psychoeduca	CBT group scored better on outcome measures than RA and SH groups after intervention. All symptoms reduced significantly in CT and SH groups, but	Beck Depression Inventory, Beck Anxiety Inventory, Post-traumatic Diagnostic Scale, Sheehan Disability Scale

			allocated to CBT, SH or RA		<p>tion (28) SH: booklet about understanding trauma reactions, based on CBT approach, introduced by clinician in 40 minute session (25) RA: rationale explained in 20 minute session, completed assessments (26)</p>	not RA. Fewer people in CBT group met PTSD criteria at intervention end	
Freyth,	To compare	Randomised	40 people	Assault,	PE:	No	Beck

Elsesser, Lohrmann and Sartory (2010)	prolonged exposure (PE) to supportive counselling (SC) for the treatment of ASD	trial	who met ASD criteria and were referred for treatment. Alternate referrals allocated to PE or SC	accident or other	psychoeducation and exposure to a trauma script developed with the participant over three sessions (19) SC: psychoeducation, relaxation and problem solving (21)	differences seen in outcomes on self-report or physiological measures	Depression Inventory, Impact of Events Scale, Dissociation Questionnaire, Post-Traumatic Cognitions Inventory, Stat-Trait Anxiety Inventory, laboratory measure of heart rate and skin conductance
Hirai & Clum (2005)	To assess an online CBT	Randomised study	93 people recruited	Accident, assault, life-	CBT: Eight sessions	Self help group	Beck Depression

	based self help programme for treating trauma responses		from student pool and community. 42 were eligible and 27 completed study. Randomly allocated to CBT or wait list	threatening disease, loss (murder/suicide)	online programme including psychoeducation, relaxation training, cognitive restructuring and writing based exposure (13) Control: waiting list (14)	reported lower scores on anxiety, depression, intrusions and avoidance at the end of the programme	Inventory, Impact of Events Scale, State-Trait Anxiety Inventory, Stressful Responses Questionnaire, Rosenberg Self-Esteem Scale
Levine, Ekhardt & Targ (2005)	To investigate the effect of a traditional support	Randomised controlled trial	81 women with a diagnosis of breast cancer, aged	Breast cancer	CAM: Twelve week, twice weekly, group program	At end, participants in both groups showed a	Functional Assessment of Chronic Illness Therapy,

	<p>group compared to a complementary and alternative medicine (CAM) support group in reducing PTSD symptoms in women with breast cancer</p>		<p>26-78, recruited via hospitals, flyers and public service announcement. Randomised to CAM or standard support</p>		<p>focused on psychospiritual issues which included meditation, yoga, imagery, movement and health lectures. (93) Standard support: Twelve week, weekly, unstructured psycho-educational support group. (88)</p>	<p>significant reduction in PTSD symptoms and this was greater in the standard than the CAM group.</p>	<p>Profile of Mood States, Mini mental adjustment to cancer, PTSD Checklist – Civilian Version</p>
--	---	--	--	--	--	--	--

Moore & Krakow (2007)	To assess use of imagery rehearsal therapy as an intervention for acute nightmares or PTS symptoms	Uncontrolled trial	Eleven soldiers deployed to Iraq with acute nightmares subsequent to experiencing a traumatic event	Exposure to traumatic events during war	Imagery rehearsal therapy: this is not described No control	Number of nightmares and PTSD symptoms reduced following intervention	Number of nightmares reported, Post-traumatic Diagnostic Scale
Palgi & Ben-Ezra (2010)	To report a novel approach to treating ASD	Case study	One 19 year old Israeli soldier referred following exposure to a traumatic event	Terrorist attack	13 session, seven week narrative based therapy, aimed at contextualising the trauma and coping	No formal measures used, but clinically no signs of PTSD at 6 month follow up	None

					responses within the participant's life (1)		
Possemato, Ouimette & Geller (2010)	To compare expressive writing (EW) to factual writing (FW) in coping with PTSD symptoms following kidney transplant	Randomised trial	48 people who'd had a kidney transplant were recruited via internet message boards (36), at a hospital transplant centre (1) or from transplant awareness groups (10)	Kidney transplant	EW: Three 15 minute sessions over ten days of writing about thoughts and feelings about transplant (22) FW: Three 15 minute sessions over ten days of writing about the	Both groups showed decrease in PTSD symptoms, EW group showed decreased arousal and increased transplant related quality of life	Kidney transplant questionnaire , Nottingham Health Profile, PTSD checklist-civilian version

					facts about their transplant (26)		
Van Emmerik, Kamphaus & Emmelkamp (2008)	To compare a structured writing therapy (SWT) to CBT and a wait list control for the treatment of ASD and PTSD	Randomised controlled trial	125 people meeting diagnostic criteria for ASD or PTSD who were 16+ years old and fluent in Dutch or English. Referred for trauma	Various, including traffic accident, non-sexual assault or sexual assault	CBT: five or ten 1.5 hour sessions of standard CBT – psychoeducation, exposure and cognitive restructuring. (41) SWT: five or ten 1.5 hour	Over time, both treatment groups improved more than the waitlist group. There were no differences between CBT and SWT groups	Impact of Events Scale, Beck Depression Inventory, State-Trait Anxiety Inventory, Dissociative Experiences Questionnaire

			treatment from various sources.		sessions. Participants wrote a detailed account of the traumatic event, then wrote advice to a friend experiencing the same event, then applied this to themselves. Finally they wrote a third letter about the event, its impact and their coping. (44)		
--	--	--	---------------------------------	--	---	--	--

					Control: No treatment (40)		
--	--	--	--	--	----------------------------------	--	--

Table 4 shows quality ratings for the included studies, as rated according to the scale described above (Downs & Black, 1998).

Table 4: Quality rating scales for included intervention studies

Authors	Reporting	External Validity	Internal validity – bias	Internal validity - confounding	Power	Overall total score (max 31)
	Total (max – 11)	Total (max- 3)	Total (max – 7)	Total (max – 6)	Total (max – 5)	Total (max – 11)
Bisson, Shepherd, Joy, Probert, & Newcombe, (2004)	9	3	7	6	1	26
Bryant, Harvey, Dang, Sackville, & Basten, (1998)	8	3	6	4	0	21
Bryant, Mastrodomenico, Felmingham, Hopwood	10	3	6	5	0	24

, Kenny, Kandris, Cahill & Creamer (2008)						
Bryant, Moulds, Guthrie & Nixon (2003)	8	1	6	5	1	21
Bryant, Moulds, Guthrie & Nixon (2005)	9	3	6	5	0	23
Bryant, Sackville, Dang, Moulds, & Guthrie (1999)	8	2	6	3	0	19
Ehlers, Clark, Hackman n, McManu s, Fennell, Herbert & Mayou (2003)	9	2	5	6	1	23
Freyth, Elsesser,	9	3	6	4	0	22

Lohrman n and Sartory (2010)						
Hirai & Clum (2005)	6	0	2	1	0	9
Levine, Ekhardt & Targ (2005)	6	2	3	4	0	15
Moore & Krakow (2007)	4	1	2	0	0	7
Palgi & Ben-Ezra (2010)	2	0	0	0	0	2
Possema to, Ouimette & Geller (2010)	9	1	6	2	0	12
Van Emmerik, Kampha us & Emmelka mp (2008)	9	2	5	4	1	21

CBT based studies

In a series of studies, Bryant and colleagues have investigated CBT as an intervention for ASD following a physical assault, or traffic accident (Bryant et al., 1998, 1999; Bryant et al., 2008; Bryant, Moulds, Guthrie, & Nixon, 2005; Bryant et al., 2006; Bryant, Moulds, Guthrie, & Nixon, 2003). Initial studies demonstrated CBT to be more effective than supportive counselling in reducing the likelihood of PTSD development at 6 month follow up (Bryant et al., 1998), even when the participants had experienced mild traumatic brain injury, which could potentially reduce intervention efficacy (Bryant et al., 2003). As can be seen in the quality ratings above, these studies were of relatively poorer quality than later ones, largely because they lacked power and participants were not randomised to conditions. However, follow ups of these participants demonstrated that gains were maintained after 4 years (Bryant, Moulds, & Nixon, 2003).

Hypnosis has been investigated as a possible additive to CBT for ASD following assault or traffic accident (Bryant et al., 2005), however the addition of hypnosis did not improve the efficacy of CBT compared to supportive counselling.

Other studies have also found CBT to be more effective at reducing PTSD symptoms than no intervention (Bisson et al., 2004) and more effective than repeated assessments or self help (Ehlers et al., 2003). Similarly, an online CBT-based guided self help programme targeted at the general population who had experienced a traumatic event was found to be more effective in reducing distress than no intervention (Hirai & Clum, 2005). Unfortunately, the quality of this study, according to the rating scale used, is relatively low. This is largely because very limited information is given about the study and

it appears to lack external validity and enough power to make the results credible. These significant problems mean that while it may be useful as a proof of concept, this study cannot be taken as evidence that an online self help approach is useful in reducing PTSD symptoms in a non-treatment seeking community population. Therefore it seems that one-to-one CBT is well supported, however other modes of delivery are less well investigated and not currently supported by the evidence.

In a comparative study of CBT and a structured writing intervention, both were found to be more effective than no intervention (van Emmerik, Kamphuis, & Emmelkamp, 2008). This study is interesting as it included participants who met ASD or PTSD criteria, and did not specify the type of trauma that had led to distress, thus making it potentially more generalisable to clinical practice than the circumscribed studies discussed above. However there were some methodological difficulties with this study, including a large variation in follow up times and a relatively high number of drop-outs for people who had experienced some types of traumatic event compared to other types of trauma, which is unexplained and limits generalisability. As this is the only study comparing a writing therapy to CBT, it is possible only to conclude that writing may be a promising alternative therapy and requires further investigation.

Bryant and colleagues have also attempted to dismantle the aspects of CBT that may be most effective in reducing distressing symptoms following a traumatic experience. Prolonged exposure with or without anxiety management was more effective than supportive counselling in the initial study (Bryant et al., 1999). More recently, Bryant et al (2008) compared

prolonged exposure and cognitive restructuring as interventions for ASD with a waiting list control and found that participants in the prolonged exposure condition scored significantly lower on measures of ASD and PTSD by the end of the sessions and at 6 month follow up, and reported significantly less distress. Participants in the cognitive restructuring group did show improvement, however this was not as great as the prolonged exposure condition, and in conjunction with the previous results, this suggests that exposure is the active component in reducing PTSD symptoms.

However, Freyth, Elsesser, Lohrmann and Sartory (2010) compared three sessions of prolonged exposure to three sessions of supportive counselling in a randomised study. All participants improved over time, with no significant differences seen between groups on either self-report or physiological measures, suggesting that exposure alone may not be enough.

Taken together, these studies provide equivocal results. It may be that the increased number of sessions in the Bryant et al (1999; 2008) studies made the prolonged exposure intervention more effective. However, it is not possible to conclude from the two studies whether prolonged exposure is a useful approach to use in the aftermath of trauma for people who are distressed, particularly as quality ratings demonstrate that both studies were under-powered and therefore it is possible that both sets of results simply represent random variability. Strengths of both studies include a thorough range of outcome measures and clear descriptions of the interventions and quality rating demonstrates that these factors contributed to strong external and internal validity. The lack of a no-treatment control in the Freyth et al. (2010) study means that it is impossible to know whether participants may

have improved without input, although the Bryant et al (2008) findings suggest this is unlikely. While no-treatment controls can be seen as unethical where people have been referred for treatment, a waiting list control as used by Bryant et al (2008) would have enabled better understanding of the findings.

Overall then, it seems that CBT is an effective early intervention for people who are distressed in the aftermath of an event they perceive as traumatic. Most of these studies are of reasonably high quality, however, there are some problems with the included studies. In particular, most studies have focused on people with a diagnosis of ASD, who had experienced one specific type of trauma, making it hard to generalise these results to other trauma types, which may be associated with different responses. The one study that used less stringent inclusion criteria (van Emmerik et al., 2008) did not find a difference between CBT and a structured writing intervention, suggesting this is a potentially useful intervention to explore further.

Non-CBT studies

Research which has looked at non-CBT approaches has included a variety of different interventions, with mixed results. In general, these studies have been on a much smaller scale than those investigating CBT and, as shown in Table 4, of poorer quality. Two studies (Levine, Eckhardt, & Targ, 2005; Possemato, Ouimette, & Geller, 2009) took a population approach, investigating specific targeted interventions, while two others investigated novel interventions in military personnel presenting for help following

exposure to a traumatic event (Moore & Krakow, 2007; Palgi & Ben-Ezra, 2010).

One study investigated writing as an intervention for people who had received a kidney transplant, a potentially traumatic event (Possemato et al., 2009). The expressive writing group showed improvement on transplant-related quality of life at a 3 month follow up, compared with the control group. There were no significant differences on other measures, although avoidance of trauma-related stimuli approached significance, suggesting expressive writing may be a promising approach. However, this study was underpowered and did not effectively control for confounding variables (by using a more naturalistic sample and less stringent inclusion/exclusion criteria), so their results are less credible. An interesting feature of this study is that it was internet-based, and although they tried to recruit via other sources, most participants volunteered online, suggesting this may be an effective way of reaching some people who are looking for help or support following a potentially traumatic event, although obviously this is limited to people who are able to access online resources and feel comfortable using the internet. However, in combination with the van Emmerik et al (2008) study, this suggests writing about traumatic experiences is an intervention that should be further explored.

Another controlled study investigated traditional support groups in comparison with complementary and alternative medicine (CAM) based support groups to reduce distress and post-traumatic symptoms in women who had been diagnosed with breast cancer (Levine et al., 2005). Results showed that traditional psycho-educational approaches were more effective

in reducing distress than CAM groups. However, methodologically, this study was problematic, for example women in the complementary medicine groups attended twice as many sessions as those in traditional support groups, which was not controlled for. The interventions themselves are also poorly described so it is unclear what exactly was included in each group.

One of the strengths of these two studies is that they did not confine their inclusion criteria to people who met diagnostic criteria, instead including anyone who was experiencing distress. This made the studies less well-controlled as the participants were likely to represent a much more heterogeneous group, but also aids generalisability to clinical practice. These studies also suggest that people who are distressed may not always seek treatment from mental health services but might prefer to receive support elsewhere such as online (as in the Hirai and Clum (2005) study), although this requires further investigation. However, both studies also have significant methodological weaknesses, particularly in relation to the power of their findings.

Two studies examining distress in military personnel seeking support very soon after exposure to traumatic events are perhaps best seen as pilot studies given their very limited samples and lack of controls. Moore and Krakow (2007) suggest that imagery rehearsal therapy may be of use in reducing nightmares in military personnel deployed to Iraq, and the outcome measures seem to support this. However there is no detail given about the therapy itself so it is unclear what this involves. This therapy therefore requires further exploration before any conclusions can be drawn. In contrast, Palgi and Ben-Ezra (2010), in a case study of a narrative approach

to ASD following experience of a traumatic event during military service, provide much detail about the therapy, but no outcome measures, so it is unclear how, or if, the participant's distress reduced during the therapy. This therapeutic approach may be of interest, although it is unclear what the rationale was for this intervention, rather than CBT or other exposure based therapy, as there is strong evidence for this. This may relate to therapist discomfort around using exposure-based therapies (Gunter & Whittal, 2010) which means that access to evidence based therapy can be limited. Although it is not explicitly stated, Palgi and Ben-Ezra (2010) appear to have aimed to develop a therapeutic approach that will be more appealing to therapists uncomfortable with exposure work.

These four studies demonstrate very limited support for any non-CBT based approach to intervention at any point following a traumatic experience, whether this is very early on (Moore & Krakow, 2007; Palgi & Ben-Ezra, 2010) or at a later date (Levine et al., 2005; Possemato et al., 2009). The quality of most of these studies is poor in comparison with the much higher quality CBT based studies, suggesting that at best they can be viewed as pilots with much further research required. However, where enough detail is given about the interventions, they do seem to show some promise, apart from the complementary medicine group (Levine et al., 2005). In particular, writing interventions, when appropriately targeted at people in distress, rather than as a general population approach (as in Bugg et al., 2009) appear to be a promising avenue for further investigation.

Discussion

The studies discussed above raise a number of issues, both methodological and conceptual, in relation to early or low level responses to trauma.

Methodological Issues

Consideration of the quality of the studies reviewed makes clear that study quality in this area is generally poor. Of the included studies, some were of relatively high quality, particularly those investigating CBT (Bisson et al., 2004; Bryant et al., 1999; Bryant et al., 2008, 2006; Bryant, Moulds, et al., 2003; Bryant, Harvey, Dang, Sackville, & Basten, 1998; Bugg et al., 2009; Ehlers et al., 2003; Freyth et al., 2010; Scholes et al., 2007; Turpin et al., 2005), however the remaining studies were not. The range of results reported by these studies may therefore reflect limitations in methodology used. This includes underpowered studies, although those that achieved statistical power demonstrated negative results when investigating community approaches (Bugg et al., 2009; Scholes et al., 2007; Turpin et al., 2005). Some studies were presented as pilot or proof of concept studies (Hirai & Clum, 2005; Moore & Krakow, 2007; Palgi & Ben-Ezra, 2010; Possemato et al., 2009) and here lack of power is less of a problem, as the aim is to demonstrate that the intervention is worth further research. There were still significant methodological difficulties with these studies though, including a lack of external validity, poor control of bias and limited information given in the reports to enable a thorough assessment of the meaning of the results to be made.

Another of the difficulties with researching early or low level interventions for PTSD is the use of appropriate outcome measures. It seems reasonable that not developing PTSD, or symptoms associated with PTSD, should be main outcome measures, however few studies have followed participants up for long enough to be able to assess whether or not they had developed PTSD, or how long intervention effects are maintained. This is disappointing, as the last review of interventions for ASD found that follow up of participants was usually not long enough to detect later development of PTSD (Ehlers & Clark, 2003).

In the present review, positive results were not always linked to PTSD symptoms (Possemato et al., 2009), but linked with specific quality of life measures. While this is interesting, it should not be a main outcome measure if the aim of an intervention is clearly stated to be to reduce PTSD like symptoms. The case study of a narrative approach (Palgi & Ben-Ezra, 2010) used no formal outcome measures at all, and this would have significantly improved the utility of the study. Case studies alone cannot provide strong evidence for an intervention, however, the use of objective measures enables assessment of factors such as clinical or reliable change, which is important when considering the utility of an intervention (Jacobson & Truax, 1991). Overall, it seems that using appropriate outcome measures and following up participants for sufficient lengths of time to ensure these are meaningful are significant problems that should be addressed in further research into early or low level interventions.

Conceptual issues

Conceptually, one of the issues with these studies is that they all tend to focus on a specific trauma type, not all of which are easily comparable. For example, expected health events such as kidney transplants (Possemato et al., 2009) seem conceptually different experiences to assaults (Bugg et al., 2009; Freyth et al., 2010; Hirai & Clum, 2005; Resnick et al., 2007; Scholes et al., 2007; Turpin et al., 2005). There is evidence that different types of traumatic event (categorised into assault or other direct experience, learning of trauma to another, or learning of the sudden death of a loved one) lead to different rates of PTSD development (Breslau, 2009). Work relating to health events indicates that the experience of trauma may be different depending on the social context around it, for example in relation to birth, expectations about what it would or should be like impact on the experience of PTSD symptoms (Beck, 2004). It seems that post traumatic symptoms are more common than meeting PTSD criteria (Tedstone & Tarrier, 2003), and it seems possible that the experience of these and the relevant factors in their development might be different to those following an unexpected event, such as an assault. This is a difficulty when trying to apply the work described above more generally, as it seems limited to the more specific, unexpected and circumscribed traumas.

In connection with this, the question of what constitutes early intervention and how this is targeted is important. The ASD diagnosis, while used in a number of the studies discussed above, does not include all who may benefit from or require support in the early stages following trauma. This may also be highly dependent on trauma type, for example ASD may be more a

specific predictor of PTSD following assault or injury (Scholes et al., 2007) than following rape (Elklit & Christiansen, 2010) and other factors may also be important, such as previous trauma experience (Resnick et al., 2007). It is also clear that not everybody exposed to a traumatic event experiences symptoms immediately afterwards that require help, but may exhibit low level symptoms that impact functionally over a longer term (Norris et al., 2009). As the normal course of trauma is a high level of early response, followed by a relatively rapid reduction in symptoms (Norris et al., 2009), and there is no evidence for population based early interventions (Bugg et al., 2009; Scholes et al., 2007; Turpin et al., 2005), apart from in a very small group of people who are highly likely to become distressed (Resnick et al., 2007) it seems that it would be best to avoid intervening too early. Therefore, interventions targeted after the immediate aftermath of a traumatic event and including people scoring below clinical cut off levels, but who demonstrate some distress, may be more helpful in prevention of PTSD or post trauma distress and so should be further explored.

It is also clear from the studies reviewed above that there is a very limited understanding of the processes that might be operating, both in early responses to trauma and in the interventions used. For example, it seems clear that participants feel self help interventions such as information and writing are useful (Bugg et al., 2009; Hirai & Clum, 2005; Scholes et al., 2007), however it is not clear why this is. This finding is also at odds with most of the objective outcome measures that these are not useful in preventing PTSD symptoms, although again short follow up periods mean that it cannot be definitely concluded that such interventions are not effective.

It would be interesting to explore what people believe is helpful, even though they are not getting any better.

Conclusions

Overall, the best available evidence at present strongly supports CBT as an early intervention following a traumatic experience, particularly for people who meet criteria for ASD, with limited more general support. It is not clear whether constituent aspects of CBT, such as cognitive restructuring or prolonged exposure are as effective alone as CBT.

As yet, there is no strong evidence for non-CBT based early interventions, however there are possibilities that may be useful to explore further. Of the interventions reviewed above, the best supported are writing-based interventions, delivered either online or by clinicians.

There is also very limited evidence for non-CBT based interventions for people who report distress following a traumatic event but do not necessarily meet diagnostic criteria. There is no evidence that self help approaches are effective when targeted at a general population level following a circumscribed traumatic event.

Clinical Implications

Clinically, this review suggests that broad population-based interventions in the aftermath of a traumatic experience are ineffective, and likely to be a waste of resources that could be better targeted to people when or if they develop distress at a later stage. This has implications for responses to

natural disasters or other large scale events, and also for military personnel who are likely to be exposed to multiple potentially traumatic events, but do not necessarily need immediate interventions.

The best supported therapeutic approach following a traumatic experience is CBT, however it is important to note the circumscribed inclusion criteria in research so far, making it less clear that this is effective for all people in general clinical practice. However, CBT should be offered to people who present seeking help, in line with national guidance (NICE, 2005). As there is limited evidence for other therapies at this point, these cannot be recommended.

It is also important clinically to consider how responses to different potentially traumatic events may differ. For example people who have experienced a health event may be less likely to present for mental health treatment, so alternative ways of helping them manage distress may be suitable here, for example through groups or online approaches.

Implications for future research

Future research in general should aim to assess whether those interventions that are supported are supported across different types of trauma, such as natural disaster, health conditions or sexual assault. It may be that not all approaches are relevant for all trauma types, particularly where social context may impact significantly more, such as in the development of trauma responses after a health event.

It is also important to further understand the impact of writing interventions, as these currently demonstrate equivocal results, depending on what outcome measures are used. However these are relatively low intensity and low resource interventions, which could easily be widely disseminated. Internet based writing programmes in particular may represent a promising approach.

Finally, there is a need for a more detailed, qualitative understanding of how people understand the impact of the interventions discussed above. This is important because results tended to show that participants felt self help information and writing tasks were useful, but this was not always borne out in objective measures. It will be useful to understand what aspects of such tasks people believe are useful to them, and how so. Therefore an exploration of what it is that people feel is particularly helpful (or not) about a self help or writing intervention, and why they would choose to utilise such an intervention would be valuable.

References

- Afana, A.-, Pedersen, D., Rønsbo, H., & Kirmayer, L. J. (2010).
Traumatology Endurance Is to Be Shown at the First Blow: Social
Representations and Reactions to Traumatic Experiences.
Traumatology, 16, 73-84
- American Psychiatric Association. (2000). *Diagnostic and statistical manual
of mental disorders: DSM-IV-TR*. American Psychiatric Publications
- Beck, C. T. (2004). In the Eye of the Beholder. *Nursing Research, 53*, 28-35
- Bernard, R. S., Williams, S. E., Storfer-issler, A., Horwitz, S. M., Koopman,
C., & Shaw, R. J. (2011). Brief cognitive – behavioral intervention for
maternal depression and trauma in the neonatal intensive care unit: a
pilot study. *Journal of Traumatic Stress, 24*, 230-234
- Bisson, J., & Andrew, M. (2007). Psychological treatment of post-traumatic
stress disorder (PTSD). *The Cochrane Database of Systematic
Reviews*, Wiley Online Library.
- Bisson, Jonathan I, Ehlers, A., Matthews, R., Pilling, S., Richards, D., &
Turner, S. (2007). Psychological treatments for chronic post-traumatic
stress disorder; Systematic review and meta-analysis. *The British
Journal of Psychiatry: the journal of mental science, 190*, 97-104
- Bisson, J. I., Shepherd, J. P., Joy, D., Probert, R., & Newcombe, R. G.
(2004). Early cognitive-behavioural therapy for post-traumatic stress

symptoms after physical injury: Randomised controlled trial. *The British Journal of Psychiatry*, 184, 63-69

Borja, S. E., Callahan, J. L., & Long, P. J. (2006). Positive and negative adjustment and social support of sexual assault survivors. *Journal of Traumatic Stress*, 19, 905-914

Breslau, N. (2009). The epidemiology of trauma, PTSD, and other posttrauma disorders. *Trauma, Violence & Abuse*, 10, 198-210.

Brewin, C. R., Fuchkan, N., Huntley, Z., Robertson, M., Thompson, M., Scragg, P., d' Ardenne, P., et al. (2010). Outreach and screening following the 2005 London bombings: Usage and outcomes. *Psychological Medicine*, 40, 2049-57.

Bryant, R. (2003). Early predictors of posttraumatic stress disorder. *Biological Psychiatry*, 53, 789-795

Bryant, R. A., Harvey, A. G., Dang, S. T., Sackville, T., & Basten, C. (1998). Treatment of acute stress disorder: A comparison of cognitive-behavioral therapy and supportive counseling. *Journal of consulting and Clinical Psychology*, 66, 862 - 866

Bryant, R. A., Mastrodomenico, J., Felmingham, K. L., Hopwood, S., Kenny, L., Kandris, E., Cahill, C., et al. (2008). Treatment of acute stress disorder: a randomized controlled trial. *Archives of General Psychiatry*, 65, 659-67

- Bryant, R. A., Moulds, M. L., Nixon, R. D. V., Mastrodomenico, J., Felmingham, K., & Hopwood, S. (2006). Hypnotherapy and cognitive behaviour therapy of acute stress disorder: A 3-year follow-up. *Behaviour Research and Therapy, 44*, 1331-5
- Bryant, R. A., Moulds, M. L., Guthrie, R. M., & Nixon, R. D. V. (2005). The additive benefit of hypnosis and cognitive-behavioral therapy in treating acute stress disorder. *Journal of Consulting and Clinical Psychology, 73*, 334-40
- Bryant, R. A., Moulds, M., Guthrie, R., & Nixon, R. D. V. (2003). Treating acute stress disorder following mild traumatic brain injury. *The American Journal of Psychiatry, 160*, 585-7
- Bryant, R. A., Moulds, M. L., & Nixon, R. V. D. (2003). Cognitive behaviour therapy of acute stress disorder: A four-year follow-up. *Behaviour Research and Therapy, 41*, 489-494
- Bryant, R. A., Moulds, M., & Guthrie, R. M. (2001). Cognitive strategies and the resolution of acute stress disorder. *Journal of Traumatic Stress, 14*, 213–219
- Bryant, R. A., Sackville, T., Dang, S. T., Moulds, M., & Guthrie, R. (1999). Treating acute stress disorder: an evaluation of cognitive behavior therapy and supportive counseling techniques. *The American Journal of Psychiatry, 156*, 1780-6

- Bugg, A., Turpin, G., Mason, S., & Scholes, C. (2009). A randomised controlled trial of the effectiveness of writing as a self-help intervention for traumatic injury patients at risk of developing post-traumatic stress disorder. *Behaviour Research and Therapy*, *47*, 6-12
- Downs, S. H., & Black, N. (1998). The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *Journal of Epidemiology and Community Health*, *52*, 377-84
- Ehlers, A., & Clark, D. M. (2003). Early psychological interventions for adult survivors of trauma: a review. *Biological Psychiatry*, *53*, 817-826.
- Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M., Herbert, C., & Mayou, R. (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. *Archives of General Psychiatry*, *60*, 1024-32.
- Elklit, A., & Christiansen, D. M. (2010). ASD and PTSD in rape victims. *Journal of Interpersonal Violence*, *25* 1470-88
- Freyth, C., Elsesser, K., Lohrmann, T., & Sartory, G. (2010). Effects of additional prolonged exposure to psychoeducation and relaxation in acute stress disorder. *Journal of Anxiety Disorders*, *24*, 909-917

- Gamble, J., Creedy, D., Moyle, W., Webster, J., McAllister, M., & Dickson, P. (2005). Effectiveness of a counseling intervention after a traumatic childbirth: A randomized controlled trial. *Birth, 32*, 11–19
- Gunter, R. W., & Whittal, M. L. (2010). Dissemination of cognitive-behavioral treatments for anxiety disorders: Overcoming barriers and improving patient access. *Clinical Psychology Review, 30*, 194-202
- Halligan, S. L., Clark, D. M., & Ehlers, A. (2002). Cognitive processing, memory, and the development of PTSD symptoms: Two experimental analogue studies. *Journal of Behavior Therapy and Experimental Psychiatry, 33*, 73-89
- Helms, J. E., Nicolas, G., & Green, C. E. (2010). Traumatology Racism and Ethnoviolence as Trauma: *Traumatology, 16*, 53-62
- Hirai, M., & Clum, G. a. (2005). An internet-based self-change program for traumatic event related fear, distress, and maladaptive coping. *Journal of Traumatic Stress, 18*, 631-636
- Holmes, E. A, James, E. L., Kilford, E. J., & Deeproose, C. (2010). Key steps in developing a cognitive vaccine against traumatic flashbacks: Visuospatial Tetris versus verbal Pub Quiz. *PloS one, 5*, e13706
- Jacobson, N. S., & Truax, P. (1991). Clinical significance: a statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59*, 12-19

- Jones, N., Burdett, H., Wessely, S., & Greenberg, N. (2011). The subjective utility of early psychosocial interventions following combat deployment. *Occupational Medicine*, 61, 102-107
- Levine, E. G., Eckhardt, J., & Targ, E. (2005). Change in post-traumatic stress symptoms following psychosocial treatment for breast cancer. *Psycho-oncology*, 14, 618-635
- Litz, B. T. (2008). Early Intervention for Trauma :Where Are We and Where Do We Need to Go? A Commentary. *Annual Review of Psychology*, 21, 503-506.
- Moher D, Liberati A, Tetzlaff J, Altman DG & the PRISMA group (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of Internal Medicine*, 151, 264–9.
- Moore, B. A., & Krakow, B. (2007). Imagery rehearsal Therapy for acute posttraumatic nightmares among combat soldiers in Iraq. *American Journal of Psychiatry*, 164, 683-684.
- NICE. (2005). *Post-traumatic stress disorder: The management of PTSD in adults and children in primary and secondary care*
- Norris, F. H., Tracy, M., & Galea, S. (2009). Looking for resilience: Understanding the longitudinal trajectories of responses to stress. *Social Science & Medicine*, 68, 2190-2198
- Olde, E., van der Hart, O., Kleber, R., & van Son, M. (2006). Posttraumatic stress following childbirth: a review. *Clinical psychology review*, 26, 1-16

- Palgi, Y., & Ben-Ezra, M. (2010). " Back to the Future ": Narrative Treatment for Post-Traumatic , Acute Stress Disorder in the Case of Paramedic Mr G. *Pragmatic Case Studies in Psychotherapy*, 6, 1-26
- Peleg, T., & Shalev, A. Y. (2006). Longitudinal studies of PTSD: overview of findings and methods. *CNS spectrums*, 11, 589-602
- Possemato, K., Ouimette, P., & Geller, P. a. (2009). Internet-based expressive writing for kidney transplant recipients: Effects on posttraumatic stress and quality of life. *Traumatology*, 16, 49-54
- Resnick, H., Acierno, R., Waldrop, A. E., King, L., King, D., Danielson, C., Ruggiero, K. J., et al. (2007). Randomized controlled evaluation of an early intervention to prevent post-rape psychopathology. *Behaviour Research and Therapy*, 45, 2432-2447
- Roberts, N., Kitchiner, N., Kenardy, J., & Bisson, J. (2009). Systematic review and meta-analysis of multiple-session early interventions following traumatic events. *American Journal of Psychiatry*, 166, 293–301
- Scholes, C., Turpin, G., & Mason, S. (2007). A randomised controlled trial to assess the effectiveness of providing self-help information to people with symptoms of acute stress disorder following a traumatic injury. *Behaviour Research and Therapy*, 45, 2527-2536

- Shalev, A. Y., Ankri, Y. L. E., Peleg, T., Israeli-Shalev, Y., & Freedman, S. (2011). Barriers to receiving early care for PTSD: Results from the Jerusalem trauma outreach and prevention study. *Psychiatric Services, 62*, 765-773
- Tedstone, J. E., & Tarrier, N. (2003). Posttraumatic stress disorder following medical illness and treatment. *Clinical Psychology Review, 23*, 409-448
- Turpin, G., Downs, M., & Mason, S. (2005). Effectiveness of providing self-help information following acute traumatic injury: Randomised controlled trial. *The British Journal of Psychiatry, 187*, 76-82
- Zohar, J., Juven-Wetzler, A., Sonnino, R., Cwikel-Hamzany, S., Balaban, E., & Cohen, H. (2011). New insights into secondary prevention in post-traumatic stress disorder. *Dialogues in Clinical Neuroscience, 13*, 301-309
- Zohar, J., Sonnino, R., Juven-Wetzler, A., & Cohen, H. (2009). Can posttraumatic stress disorder be prevented? *CNS spectrums, 14*(1 Suppl 1), 44-51.
- van Emmerik, A. a P., Kamphuis, J. H., & Emmelkamp, P. M. G. (2008). Treating acute stress disorder and posttraumatic stress disorder with cognitive behavioral therapy or structured writing therapy: a randomized controlled trial. *Psychotherapy and Psychosomatics, 77*, 93-100

van der Houwen, K., Schut, H., van den Bout, J., Stroebe, M., & Stroebe, W.
(2010). The efficacy of a brief internet-based self-help intervention for
the bereaved. *Behaviour Research and Therapy*, 48, 359-67

Appendix 1: Glossary of terms used

Acute Stress Disorder: A diagnostic category similar to PTSD, where the person experiences symptoms identical to those of PTSD within four weeks of experiencing a traumatic event (PTSD cannot be diagnosed within the first 30 days after the trauma)

Early intervention: Interventions within the first six months of experiencing a traumatic event

Low-level interventions: Minimally invasive approaches to ameliorating distress associated with trauma responses. This includes self-help or very brief therapeutic approaches (six sessions or fewer)

Sub-clinical levels of distress: people who are experiencing distress, however do not meet clinical criteria for PTSD

Appendix 2: The quality rating scale used in this study (Downs and Black, 1998)

Reporting

1. *Is the hypothesis/aim/objective of the study clearly described?*

yes 1

no 0

2. *Are the main outcomes to be measured clearly described in the Introduction or Methods section?* If the main outcomes are first mentioned in the Results section, the question should be answered no.

yes 1

no 0

3. *Are the characteristics of the patients included in the study clearly described?*

In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given.

yes 1

no 0

4. *Are the interventions of interest clearly described?*

Treatments and placebo (where relevant) that are to be compared should be clearly described.

yes 1

no 0

5. *Are the distributions of principal confounders in each group of subjects to be compared clearly described?*

A list of principal confounders is provided.

yes 2

partially 1

no 0

6. *Are the main findings of the study clearly described?*

Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).

yes 1

no 0

7. *Does the study provide estimates of the random variability in the data for the main outcomes?*

In non normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported. If the distribution of the data is not described, it must be assumed that the estimates used were appropriate and the question should be answered yes.

yes 1

no 0

8. *Have all important adverse events that may be a consequence of the intervention been reported?*

This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. (A list of possible adverse events is provided).

yes 1

no 0

9. *Have the characteristics of patients lost to follow-up been described?* This should be answered yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered no where a study does not report the number of patients lost to follow-up.

yes 1

no 0

10. *Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?*

yes 1

no 0

External validity

All the following criteria attempt to address the representativeness of the findings of the study and whether they may be generalised to the population from which the study subjects were derived.

11. *Were the subjects asked to participate in the study representative of the entire population from which they were recruited?*

The study must identify the source population for patients and describe how the patients were selected. Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible

where a list of all members of the relevant population exists. Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as unable to determine.

yes 1

no 0

unable to determine 0

12. *Were those subjects who were prepared to participate representative of the entire population from which they were recruited?*

The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.

yes 1

no 0

unable to determine 0

13. *Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?*

For the question to be answered yes the study should demonstrate that the intervention was representative of that in use in the source population. The question should be answered no if, for example, the intervention was undertaken in a specialist centre unrepresentative of the hospitals

most of the source population would attend.

yes 1

no 0

unable to determine 0

Internal validity – bias

14. *Was an attempt made to blind study subjects to the intervention they have received?*

For studies where the patients would have no way of knowing which intervention they received, this should be answered yes.

yes 1

no 0

unable to determine 0

15. *Was an attempt made to blind those measuring the main outcomes of the intervention?*

yes 1

no 0

unable to determine 0

16. *If any of the results of the study were based on "data dredging", was this made clear?*

Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.

yes 1

no 0

unable to determine 0

17. *In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls?*

Where follow-up was the same for all study patients the answer should be yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.

yes 1

no 0

unable to determine 0

18. *Were the statistical tests used to assess the main outcomes appropriate?*

The statistical techniques used must be appropriate to the data. For example nonparametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where

there is no evidence of bias, the question should be answered yes. If the distribution of the data (normal or not) is not described it must be assumed that the estimates used were appropriate and the question should be answered yes.

yes 1

no 0

unable to determine 0

19. *Was compliance with the intervention/s reliable?*

Where there was non compliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes.

yes 1

no 0

unable to determine 0

20. *Were the main outcome measures used accurate (valid and reliable)?*

For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.

yes 1

no 0

unable to determine 0

Internal validity - confounding (selection bias)

21. *Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?*

For example, patients for all comparison groups should be selected from the same hospital. The question should be answered unable to determine for cohort and case-control studies where there is no information concerning the source of patients included in the study.

yes 1

no 0

unable to determine 0

22. *Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time?*

For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.

yes 1

no 0

unable to determine 0

23. *Were study subjects randomised to intervention groups?*

Studies which state that subjects were randomised should be answered yes except where method of randomisation would not ensure random allocation. For example alternate allocation would score no because it is predictable.

yes 1

no 0

unable to determine 0

24. *Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?*

All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.

yes 1

no 0

unable to determine 0

25. *Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?*

This question should be answered no for trials if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of known confounders differed between the treatment groups but was not taken into account in the analyses. In nonrandomised studies if the effect of the main confounders was not investigated or confounding was demonstrated but no adjustment was made in the final analyses the question should be answered as no.

yes 1

no 0

unable to determine 0

26. *Were losses of patients to follow-up taken into account?*

If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was too small to affect the main findings, the question should be answered yes.

yes 1

no 0

unable to determine 0

Power

27. *Did the study have sufficient power to detect a clinically important effect where the probability*

value for a difference being due to chance is less than 5%?

Sample sizes have been calculated to detect a difference of x% and y%.

Size of *smallest* intervention group

A <n1; B n1–n2 1; C n3–n4 2; D n5–n6 3; E n7–n8 4; F n8+ 5

Appendix 3

Papers excluded from the literature review when read in full with reasons for exclusions

Authors	Brief outline of the paper	Reasons for exclusion
Zohar, Sonnino, Juven-Wetzler, & Cohen, (2009)	Outlines an animal model for understanding the development of PTSD and suggests pharmacological approaches to early intervention	Does not describe a psychological approach to the aftermath of a traumatic experience
Zohar et al. (2011)	Discusses evidence for pharmacological and debriefing approaches following traumatic experiences and makes suggestions about what emergency medical personnel should do	Does not describe a psychological approach to the aftermath of a traumatic experience;
Brewin et al. (2010)	Discusses pathways to treatment following the 2005 London bombings	Does not describe or assess the effectiveness of interventions but focuses on pathways to interventions
Holmes, James, Kilford, & Deeprose (2010)	Describes a novel intervention (playing the computer game Tetris) as an immediate intervention following exposure to traumatic material to prevent flashbacks	Participants were recruited from the general, non-clinical population
Shalev, Ankri, Peleg, Israeli-Shalev, & Freedman (2011)	Population survey outlining difficulties and barriers to early care or interventions following exposure to a traumatic event	Does not describe or assess the effectiveness of interventions but focuses on pathways to interventions
Jones, Burdett, Wessely, & Greenberg (2011)	Survey of perceived utility of a period 'decompression' including relaxation time	Did not look at changes in symptoms, therefore did not assess the effectiveness of

	and lectures on returning to civilian life following military service in Iraq or Afghanistan	decompression, only the participant's perceptions of it
van der Houwen, Schut, van den Bout, Stroebe, & Stroebe (2010)	Assessed an online written disclosure intervention aimed at people who had been bereaved and subsequently developed psychological difficulties	Did not look specifically at symptoms of exposure to a traumatic event; although bereavement could be conceptualised as a traumatic event, for the purposes of this study, it was not.
Bryant, Moulds, & Guthrie (2001)	Investigated the changes in cognitive strategies that are associated with the a good outcome following CBT or supportive counselling for ASD	Does not report the efficacy of an intervention for ASD; this data is reported elsewhere (Bryant, Sackville, Dang, Moulds, & Guthrie, 1999)
Başoğlu, Livanou & Salcioğlu (2003)	Investigated the effectiveness of a single session on an earthquake simulator for the reduction of PTSD symptoms following an earthquake	The intervention was targeted specifically at people with PTSD symptoms, therefore was not an early or low level intervention.
Gamble et al., (2005)	Investigated a brief counselling intervention aimed at preventing PTSD symptom development following traumatic birth experience, using critical incident stress debriefing methods	The intervention used critical incident stress debriefing, an intervention not included in this review.

Exploring the process of writing about and sharing traumatic birth experiences online: a qualitative investigation of women's experiences

Abstract

Objectives: This study aimed to explore the experience of writing about traumatic birth experiences and sharing this online.

Design and Methods: Semi-structured interviews were carried out with 12 women who had written about their traumatic birth experiences and chosen to share these online. Women were interviewed twice; once after writing before their story had been uploaded to the website and once one month after the story had been posted online. Interviews explored the women's motivations for writing and sharing their stories, the process of writing and the impacts of writing and sharing their stories online. Template analysis was used to analyse interview data.

Results: Two templates were developed, one for each interview. Themes included women's motivations for writing and sharing their story, such as wanting to help themselves and others. The process of writing was described as emotional, like reliving the experience. Women described mixed impacts of writing, with some finding it difficult for some time afterwards, but generally were glad they had done it. An overarching theme across both interviews was some women's feelings that their experiences were not as bad as those of others on the website and they may not be justified in feeling as they did.

Conclusions: Women described complex motivations for writing and sharing their stories online. They described a range of impacts, primarily positive but with some important caveats. This suggests that writing may be useful for some women, however it is unclear at present who is likely to benefit from writing.

Introduction

At some point in their life, most people are likely to experience an event that could be perceived as traumatic (Breslau, 2009). The subjective perception of whether or not an event is traumatic seems important in how a person responds to it, rather than its objective severity (Peleg & Shalev, 2006). This means that almost any significant life experience could be seen as traumatic, even those which may be viewed socially as positive experiences. Childbirth is one such life event, that is generally seen as a positive experience, but can be experienced as traumatic (Olde, Kleber, van der Hart, & Pop, 2006) and is sometimes associated with developing mental health difficulties (NICE, 2007), including post traumatic stress type symptoms (Czarnocka & Slade, 2000). Such difficulties may not meet diagnostic criteria for Post Traumatic Stress Disorder (PTSD; American Psychiatric Association, 2000), which include increased arousal, involuntary re-experiencing of the traumatic event and avoidance of reminders of the event, but still have a significant impact on the woman and her child.

The consequences of experiencing birth as traumatic can be significant, and include PTSD symptoms (Olde et al., 2006) or symptoms of depression (Leeds & Hargreaves, 2008). However, the potential impact goes well beyond the woman herself and can affect maternal perceptions of her child (Davies, Slade, & Wright, 2008), attachment relationships (Forcada-Guex, Borghini, Pierrehumbert, Ansermet, & Muller-Nix, 2011), and relationships with the woman's partner (Ayers, Wright, & Wells, 2007; Nicholls & Ayers, 2007; Parfitt & Ayers, 2009). Women may avoid or delay having further children if they have a traumatic birth experience (Gottvall & Waldenstrom,

2002) and traumatic birth experiences can have either a positive or negative impact on breastfeeding (Beck & Watson, 2010). It therefore seems important that women who have had such experiences are offered support to manage their distress and reduce the wider impact. This is emphasised by national guidance on the development of mental health difficulties following birth which suggests that due to the potential impact of problems, interventions should be offered at a relatively low level of symptoms (NICE, 2007).

Some factors make birth different from other potentially traumatic events, including that it is usually expected and voluntary. Birth can also involve significant breaches in bodily integrity, which again is not necessarily the case for other traumatic events (Ayers, Joseph, McKenzie-McHarg, Slade, & Wijma, 2008). The social context of birth is also important. Most other traumatic events are socially viewed as negative, while birth is generally seen as a positive experience, potentially making it difficult for women to discuss their negative feelings (Soet, Brack, & Dilorio, 2003). Birth is also an event that usually takes place in a professional care context and this interpersonal element seems to be important in the development of post traumatic symptoms. Women who feel unsupported by family or health professionals are much more likely to develop symptoms (Cigoli, Gilli, & Saita, 2006; Ford & Ayers, 2009; Lemola, Stadlmayr, & Grob, 2007; Soet et al., 2003). While there are a small but significant number of women who do meet criteria for PTSD (Olde et al., 2006), there are many who may not, but still experience significant difficulties, and so the diagnostic category may not be particularly useful in this instance. Rather, to understand the impact of

traumatic birth experiences, and how and when to intervene, it seems more helpful to broaden the conceptualisation of traumatic birth to include those women who experience birth as a trauma and experience distress, but do not necessarily meet diagnostic criteria (Ayers et al., 2008; Czarnocka & Slade, 2000; Maggioni, Margola, & Filippi, 2006).

Qualitative research has provided insight into how women understand and perceive traumatic birth experiences. A recent meta-ethnographic review (Elmir, Schmied, Wilkes, & Jackson, 2010) found five main themes reflecting negative experiences of birth. These included themes relating to the birth experience itself: feeling invisible and out of control; and not feeling treated humanely, demonstrating the importance of social and professional support during birth. Themes relating to the consequences of the traumatic birth also developed. These were: feeling trapped: the recurring nightmare of my childbirth experience; a rollercoaster of emotions; and disrupted relationships, demonstrating the impact that this kind of experience can have on women and their families after the birth. A positive theme also developed: strength of purpose: a way to succeed as a mother. This adds to the quantitative research by providing a detailed and nuanced understanding of what the experience of traumatic birth is like, and demonstrates that both the birth itself and its aftermath are important in understanding women's responses.

There is limited research into interventions that might be of use following a traumatic birth experience and little access to specialist NHS services, despite guidance to intervene early (NICE, 2007). National guidance for PTSD recommends cognitive behaviour therapy (CBT) or Eye Movement

Desensitisation and Reprocessing (EMDR) as favoured therapeutic approaches (NICE, 2005), and this is similarly recommended in the guidance for treatment of women with PTSD after birth (NICE, 2007). For people who have had other types of traumatic experience (i.e. not related to birth), there is evidence for CBT as an effective early intervention, or at sub-clinical levels of distress, either clinician led or as self help (Ehlers et al., 2003; Hirai & Clum, 2005; Roberts, Kitchiner, Kenardy, & Bisson, 2009). An intervention which has compared well with CBT approaches is writing about trauma (Possemato, Ouimette, & Geller, 2009; van Emmerik, Kamphuis, & Emmelkamp, 2008).

For women seeking support who are unable to access NHS services, a number of voluntary organisations exist, including the Birth Trauma Association (BTA), which both campaigns for better awareness and supports women following traumatic birth experiences. One of the ways in which the BTA supports women is by encouraging them to write about their experiences and publishing these stories online for others (including women in similar circumstances, their families or friends, and health professionals) to read. This could be seen as similar to writing therapy (Possemato et al., 2009; van Emmerik et al., 2008), or expressive writing (Pennebaker, 1997) although with significant differences, including the lack of formal instructions and the public nature of the stories posted on the website.

Pennebaker's (1997) original study into therapeutic writing invited participants to write about their thoughts and feelings about a significant emotional experience for 15 to 30 minutes. This research, and later research into expressive writing, did not specifically relate to PTSD, or necessarily

traumatic events, but to any significant emotional event identified by the participant. Expressive writing has been shown to be associated with a number of benefits, including fewer healthcare visits and less time off work. A meta-analytic review (Frattaroli, 2006) found an overall significant and positive effect (with a very small overall effect size of 0.075) of writing about emotional experiences. Work specifically looking at the impact of writing for people with PTSD symptoms has shown expressive writing to be associated with decreases in physiological stress measures, tension and anger (Smyth, Hockemeyer & Tulloch, 2008). However, research has suggested that writing may increase negative emotion in some people (O'Connor & Ashley, 2008), particularly people who find it difficult to express and process emotion, therefore writing is not necessarily beneficial for everyone. However, participants in this study were not asked about any post traumatic symptoms, so it is unclear how this applies to people who are distressed in the aftermath of a traumatic event.

The mechanism by which expressive writing or writing about trauma may affect symptoms is unclear (Sloan & Marx, 2004). Three mechanisms are suggested to underpin the benefits of expressive writing. These include the writing functioning as exposure, enabling the person to emotionally process the traumatic event (Sloan, Marx, & Epstein, 2005), enabling cognitive adaptation to the experience through allowing the person to change their perceptions of their experience and the reduction of emotional inhibition through expressing this in writing (Sloan & Marx, 2004). All three mechanisms have some support (Sloan & Marx, 2004), and it may be that all play some part in the positive effects generally seen in experimental studies.

Theoretical models of PTSD (e.g. Ehlers & Clark 2000; Brewin et al. 1996; Foa & Rothbaum 1998) suggest that memory for traumatic experiences is likely to be fragmented and disorganised (Halligan, Clark, & Ehlers, 2002). It is therefore unlike other forms of autobiographical memory, possibly due to heightened levels of emotion during a traumatic experience which affect its encoding in memory (Brewin et al., 1996). Repeated exposure to this memory, enabling reorganisation, is therefore a key aspect of psychological interventions to reduce post-traumatic symptoms. Usually, such exposure involves reliving or describing the experience in written or spoken form (Ehlers, Clark, Hackmann, McManus, & Fennell, 2005). This also enables the restructuring of beliefs that maintain distress (Ehlers et al., 2005). Writing about traumatic experiences seems likely to function in a similar way, enabling the person to reorganise their memory and challenge their perceptions of their experiences. It is also important to note that CBT interventions for PTSD focus not only on exposure but also on making cognitive adaptations to the trauma and reducing avoidance of emotion, further supporting the idea that more than one mechanism is important in the effects of writing about a traumatic experience. The mechanisms through which expressive writing is suggested to act thus mirror the mechanisms through which cognitive behavioural interventions for PTSD are suggested to work.

Writing has been used as an intervention in clinical studies, particularly as an early intervention (e.g. Bugg, Turpin, Mason, & Scholes, 2009), or as part of an approach designed to increase access by incorporating new technology (Lange et al., 2003; Possemato et al., 2009). In such studies, writing has

been seen as an acceptable task and an effective alternative to CBT (van Emmerik et al., 2008). It is important to note that these studies are based on the private use of writing. When more public use of writing is considered, such as sharing stories online, less research has been carried out. However, it seems that generally people feel that sharing their story will be helpful to them, as noted anecdotally by the BTA, and seen in surveys of people who intend to start blogs online (Baker & Moore, 2008). This is borne out by a limited number of studies (Beck, 2005; Hoyt & Pasupathi, 2008), which suggest people report benefit from writing and sharing their stories, and that blogs about trauma seem to mark a recovery process for some people. Similarly, women who have participated in qualitative studies in which they have written about their birth experience report these as positive experiences, but it is unclear what they find helpful about writing (Beck, 2005), nor why women who contact the BTA are often so keen to write for the website and feel it will be beneficial. There is therefore a need to investigate the experience of writing.

Research relating to expressive writing, both clinically and experimentally, has largely focused on quantitative outcomes, and has been criticised for this approach (Nicholls, 2009), as it does not allow a broad understanding of the writing experience. Previous research that has looked at the process of writing as an intervention has focused on analysing the writing itself (e.g. Johnston, Startup, Lavender, Godfrey, & Schmidt, 2010). Instead, Nicholls (2009) argues the focus should now be on qualitative approaches, to broaden our understanding of the experience of expressive writing. This suggests there is a need to explore the process of writing in order to

understand the outcomes reported and this is particularly the case in the relatively under-researched area of writing designed to be shared publicly.

The present study aimed to investigate the qualitative experience of writing about a difficult or traumatic experience, (specifically childbirth) and anonymously sharing these writings online, using retrospective interviews with women who have chosen to share their stories on the BTA website. This study took a longitudinal approach, investigating both how women understand the process of writing their story and then following them up after it had been posted online to gain an understanding of any changes in their feelings about their story and the impact of seeing it online.

Aims

The aims of this study were:

1. To retrospectively explore women's reasons for sharing traumatic birth experiences online, including their expectations and hopes about writing.
2. To explore the process of writing, including how participants approached the task.
3. To explore women's perceptions of their writing and any impact they think it had on them once it has been submitted for online posting.
4. To understand longitudinal changes in response to or use of a piece of writing about a traumatic experience once it had been shared online.

Method

Participants

Participants were women who had contacted the Birth Trauma Association (BTA) offering to write about their traumatic birth experience for the website or had written their story and subsequently agreed to publish it online. Inclusion criteria were women who felt their birth was traumatic; contacted the BTA between November 2011 and April 2012; had written their story within the preceding three months, and had not yet had it published online.

Exclusion criteria were being male; having written their story more than 3 months previously; receiving psychological therapy relating to their traumatic birth experience at the time of recruitment; or not feeling that their birth experience was traumatic at recruitment.

In total, 28 women met the inclusion criteria and were approached to participate in this study. Of these, 12 women (43% of those approached) consented to take part and completed both interviews.

Procedure

When the BTA received a birth story or an offer to write one, the woman was asked if she was interested in participating in this study by the BTA contact. If so, she was invited to contact the researcher (see Appendix 2 for the initial invitation e-mail) and, if she did so was then sent a standard e-mail (see Appendix 3) asking for her preferred method of contact and attaching the information sheet and informed consent form (see Appendix 4). If the woman opted in, the researcher contacted her to discuss the research process,

address any concerns she might have and arrange the first interview. The participant was then asked to complete the Impact of Events Scale Revised (IES-R; Weiss & Marmar, 1996; see appendix 5) for the present time and the time at which she felt at her worst. To assess whether the woman felt her birth experience was traumatic, she was asked if she meet criterion A of the DSM-IV for PTSD, as used by Gamble et al. (2005), i.e. whether if during labour or birth she was fearful for her or her baby's life, or feared serious injury or permanent damage. Women were asked to email the consent form and their birth story to the researcher before the first interview.

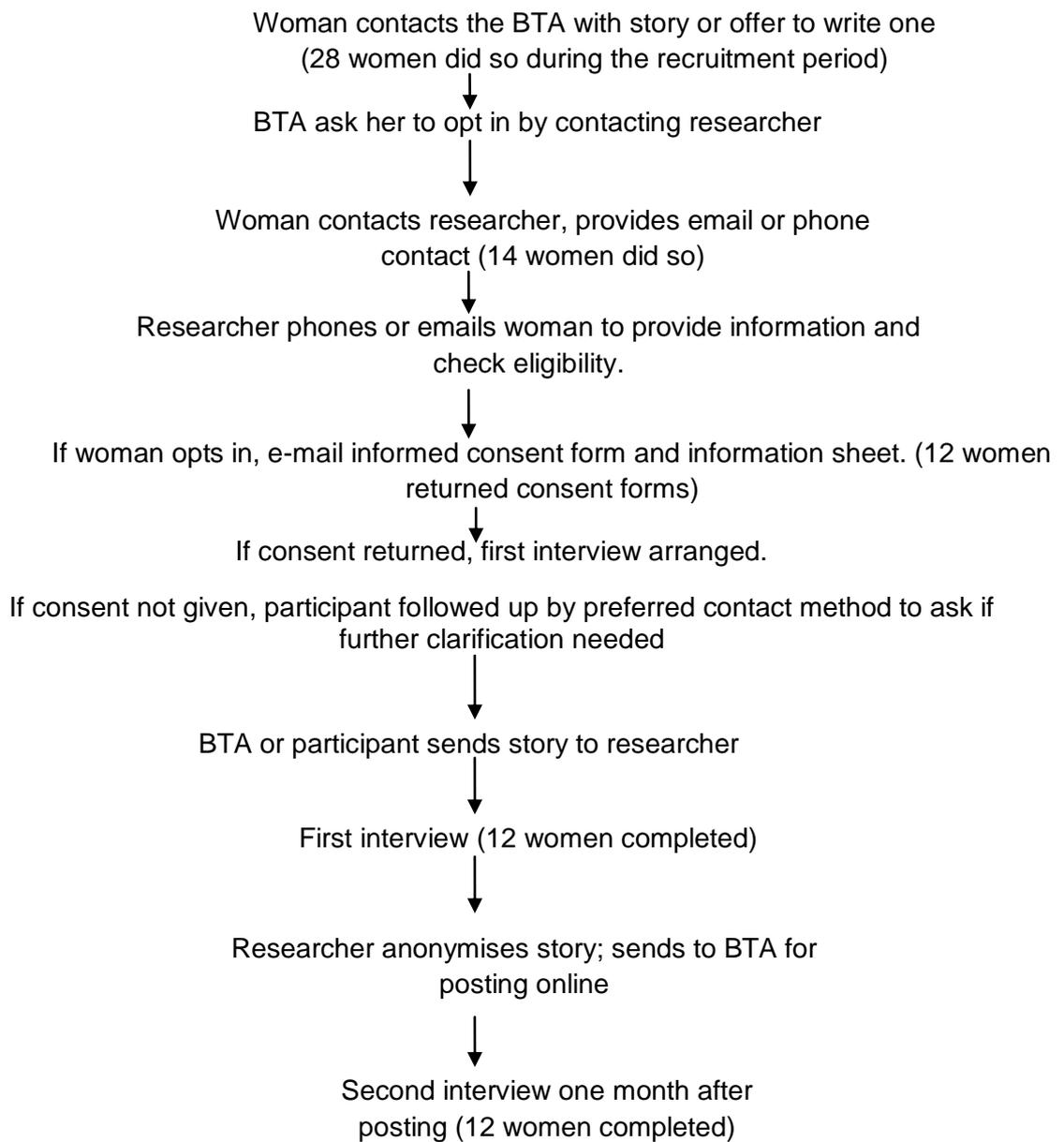
The researcher read the woman's story prior to the first interview, in order to understand her experience. Both interviews followed a semi-structured schedule (see Appendix 6). The first interview focused on the woman's experience of writing her birth story and the process of writing and the second focused on her use of the story since writing it, and the experience of seeing it online. The second interview took place approximately a month after the story was posted online.

Interviews were carried out by telephone, as participants from all over the UK were eligible. Interviews were scheduled at the most convenient time for the participant. E-mail interviews were initially considered, however this was decided against in order to maintain homogeneity of the data. There is an inbuilt delay to e-mail which meant that detail could be lost, and while e-mail interviews have been used successfully before (Beck, 2005), telephone interviews seemed more likely to yield detail.

Following the first interview, participants were asked to complete a demographics form (Appendix 6) to contextualise their interviews. The story was anonymised by the researcher and sent to the BTA to be posted online. The second interview was arranged for a month later. Figure 1 shows the recruitment and interview process.

It was decided to complete two interviews one month apart in order to explore the changes in women's perceptions of their writing over time. Although this could have been discussed within one interview at the second time point, a month after their story had been posted online, it seemed likely that relying on memories of how they had felt and responded one month earlier might not be reliable or easy for participants to recall. However, there were ethical implications in relation to carrying out two interviews, in particular that women might have found it difficult to drop out if they wished to. To manage this, the researcher ensured that consent to participate was gained at both interviews, and it was made clear to participants that they could change their mind about participating at any point.

Figure 1: Recruitment and interview procedure



Development of the interview schedules

Interview schedules were developed in line with guidance for qualitative interviewing (Banister et al., 2011) and from the main research questions of this study. The first interview focused on exploring women's reasons for sharing traumatic birth experiences online, their expectations and hopes about writing, the process of writing, their perceptions of their writing and any perceived impacts. The second interview focused on understanding longitudinal changes in participants' responses to or uses of their writing once it had been shared online, including any ongoing impacts. The interview schedules were used flexibly, enabling the researcher to focus on the participant's individual experiences and probe for detail on particular areas of interest, while ensuring the main areas outlined in the schedule were covered.

Measures

Post traumatic stress disorder symptoms were measured using the Impact of Events Scale Revised (IES-R: Weiss & Marmar, 1996). This scale consists of 22 items, based on posttraumatic stress symptoms, rated from one to five depending on how distressing the person has found each experience during the past seven days. There is no cut off score. Scores for each category of response (intrusion, avoidance and hyperarousal) are calculated, along with an overall score. The IES-R has been used in other studies of post traumatic symptoms following birth (Denis, Parant & Callahan, 2011). The subscales show good internal consistency and good concurrent validity with other measures of PTSD. In this study, overall scores on the IES-R were

used to contextualise the level of PTSD symptoms participants had experienced both at their worst point and at the time of recruitment to the study.

Service user involvement

This research was developed in conjunction with the BTA, and developed from their interest in finding out more about the uses of the stories they post online and the experiences of women writing their stories. Approval for the study and to recruit women via the website was given by the BTA committee.

Data analysis

All interviews were transcribed verbatim prior to analysis, by the researcher or a professional transcriber. The researcher maintained a reflexive diary throughout the study. Demographic information and the birth stories were used to contextualise the women's interview data, but were not themselves analysed. Interview data was analysed using template analysis (King, 2004). The aim of template analysis is to develop a coding 'template' from close reading of the collected data. This provides a meaningfully organised summary of the themes developing within the data. The two interviews were analysed separately, with templates developed for each one. An identical analytic strategy was used for both interviews.

Template analysis was chosen for use in this study because it is a flexible and exploratory approach which does not require a particular philosophical position to be taken (King, 2004). This study aimed for an exploratory perspective and to be open to various different interpretations of the

interview data. It was considered that template analysis provided the most flexible approach to do this, unlike other qualitative methods which can require an interpretative approach to be taken by the research (Interpretative Phenomological Analysis; Smith, Flowers and Larkin, 2009) or aim at theory building in a less exploratory way (Strauss and Corbin, 1990).

Coding began with the development of an a priori template based on the broad themes covered in the interview (King, 2004). This was intentionally kept open and lacking detail in order to not affect the researcher's ability to be open-minded and exploratory in analysing the data. A priori themes for interview one were 1. *Experience of birth as traumatic*; 2. *Choosing to write my story*; 3. *The process of writing*; and 4. *The impact of writing on me*. A priori themes for interview 2 were 1. *The impact of writing on me and others*; 2. *Seeing my story online*; 3. *How I have used my story since I wrote it*.

Coding began with a subset of three transcripts. Each interview was listened to and the transcript read closely to develop familiarity with the content and immersion into the material. Following this, the researcher highlighted possibly relevant material, using codes from the initial template, or developing new codes to label the material if pre-existing codes were not available. When preliminary codes had been developed for each of the three initial transcripts, they were combined and higher order themes were developed to capture broader themes in the data. Themes were organised hierarchically, leading to a first template which was then compared to the initial template, leading to modification of this. This modified template was re-applied to previously coded transcripts, and modified further to ensure it captured the themes identified in preliminary coding. The template developed

was then applied to each new transcript, coding relevant segments and developing new codes to capture material not covered. When changes to the template were made, the modified template was then applied to previously coded transcripts. This was an iterative process where template modification and reanalysis of previously coded transcripts informed one another. The analytic process was stopped at the point where no significant gains were made from continuing this process, based on discussion with the research supervisor.

Quality

To ensure quality and validity of the research process, the researcher adhered closely to established template analysis approaches, as set out by King (2004). To ensure validity of the analysis, the initial template and analysis of the first three transcripts was discussed with the research supervisor, as were later emerging themes to ensure that there was a clear justification for all changes and modifications to the template. The researcher's analytic strategy included searching for disconfirming evidence, to ensure that themes were clearly grounded in the data.

An audit trail of the process through which the final template was developed was maintained. This included initial coding of the transcripts, the process of clustering themes together and the decisions that led to ordering themes in a particular way to make up the template. An outline of the initial template and all subsequent changes to it was included. This was shared with the research supervisor. (see appendix 7 for an example of coding and initial themes from one participant).

Peer supervision from another trainee clinical psychologist was used to discuss emerging themes. A peer audited one transcript and the trail of template development.

Reflexivity

Reflexivity about the research topic, and the impact of oneself on the participants and data (and vice versa) is an important aspect of qualitative research (Finlay & Gough, 2003). The researcher maintained a reflective diary throughout the study, noting ideas and thoughts about the work as they emerged and the interaction between these ideas and the researcher's own perspective. This was aimed at ensuring the researcher maintained an open mind towards the interview data and an awareness of the researcher's pre-existing ideas that may have impacted on data collection, coding and template development. This research diary also aimed to enable bracketing of the thoughts and ideas produced at each stage of the research process, and help maintain open-mindedness throughout data collection and the analysis.

Researcher characteristics

The researcher was a white British 30 year old woman, of a similar age to the average age of the participants. She had no children. She had clinical experience of working psychologically with people who had experienced a traumatic event. She had some pre-existing ideas that people may find writing online to be a useful experience based on experiences and discussions with people on other websites. Beyond this, she had no specific

beliefs about the uses people may have for writing about a traumatic experience.

Ethics

Ethical approval was sought and gained from the University of Sheffield Department of Psychology ethics committee (see Appendix 1).

Consent to participate was gained from all women taking part in the study following discussion of the study and their right to withdraw at any time. Consent was checked at the start of each interview. It was anticipated that any emotional distress experienced by the participants would be managed by the researcher in the first instance, with direction to the BTA for further support if appropriate, however this did not arise.

Data (interview recordings and transcripts and women's stories) was stored in line with current Clinical Psychology Unit guidance on storing digital recordings, i.e. both digital recording files and transcripts of interviews were stored in password protected files, and named with pseudonyms to ensure anonymity of the participants. The researcher maintained a separate password protected database linking the participants' details to their pseudonyms. A professional transcriber signed a confidentiality form to ensure data confidentiality was maintained.

Participant demographics

All participants were British and of White ethnic origin. The participants ages ranged from 20 to 37 years (mean - 31.5, standard deviation – 5.6). Seven women were married, one was single and four were living with their partner.

Participants had given birth to between one and three children (mean – 1.6, s.d. – 0.88). Their traumatic birth experience had been between four months and six and a half years ago (mean – 29 months, s.d. – 23.5). Some women had received professional help following their birth (five had been prescribed anti-depressants or beta-blockers; seven had received CBT or counselling), however three women had not.

Measures

Participants' were asked to complete the IES-R (Weiss & Marmar, 1996) both for how they felt at their worst point, and at the time of the first interview. Scores for women's worst point ranged from 22 to 88 and current IES-R scores ranged from 13 to 73. Means and standard deviations for total scores and the IES-R subscales are shown in table 1.

Table 1: Means and standard deviations for IES-R scores at each time point

	IES-R Total Mean (S.D.)	Avoidance subscale Mean (S.D.)	Intrusions subscale Mean (S.D.)	Hyperarousal subscale Mean (S.D.)
At their worst point	64.2 (17.4)	19.2 (7.1)	26.5 (6.6)	18.5 (6.0)
At first interview	38.3 (21.1)	13.8 (7.7)	15.8 (8.2)	8.5 (7.1)

Formal clinical cut-offs are not available for this scale, although higher scores indicate greater levels of distress and a cut off of 33 has been suggested

(Creamer, Bell, & Failla, 2003). Using this cut off, 11 of the 12 women (92%) would potentially have met PTSD criteria at their worst and 7 of 12 (58%) at the time of the first interview. The range of change in scores was 0 to 65 (mean = 25.9, s.d. = 20.2), demonstrating a wide range of change in level of symptoms, perhaps reflecting the differences in time since the traumatic birth among participants, and that only some women had received interventions (both psychological and pharmacological).

Results

Interview findings

Two templates were developed. While each interview had a slightly different focus, links could be seen between the templates. Some themes developed from the second interview clearly duplicated the themes developed from the first interview. Below, the templates are described and the links between them are discussed. Themes were developed with the aim of being broad enough to reflect the heterogeneity of experience, however disconfirming evidence was also sought and is noted if present. The initial interview focused primarily on the experience of writing about the birth experience and choosing to share this. Five main themes were developed from the basis of the a priori themes. Four main themes were developed from the second interview, which focused on changes the participants had noticed in the month since their writing had been posted online, and their feelings about the experience of writing and sharing their story.

Finally, one lateral theme was developed which appeared to cut across the themes identified in both interviews. These templates outlining themes and subthemes are shown in figure 1. Linkages between themes are shown in the templates through theme numbers following the themes. Illustrative quotes are also given below (names given are pseudonyms).

Figure 1: Templates from the two interviews

Template from first interviews	Template from second interviews
<ol style="list-style-type: none"> 1. Deciding to write my story <ol style="list-style-type: none"> a) As a way to help myself <ol style="list-style-type: none"> i) To clarify it and get it into order ii) Writing is a pre-existing way of coping for me b) I felt ready to write c) It's easier to write it down than talk to someone (7) d) To gain a voice by telling my story in my own way 2. Choosing to share my story on the BTA website <ol style="list-style-type: none"> a) My writing might help other women in the same situation_(6a) <ol style="list-style-type: none"> i) They will know they're not alone, which might help them feel better ii) They might gain hope from my story, seeing that it is possible to get through it b) Wanting to raise awareness as people are ignorant about birth and the impact of a traumatic birth experience and so change the way that health professionals work (6b) c) To get something positive from something negative (6) <ol style="list-style-type: none"> i) My experience will mean something if by writing about it I can help someone or change things d) Ambivalence about people I might know reading it <ol style="list-style-type: none"> i) Not wanting family or friends to read it, in case it hurts them or changes their view of me ii) Not wanting the people involved to see it e) Being anonymous made it easier to share my story online (8b) 	<ol style="list-style-type: none"> 6) Writing and sharing my story was a way of getting something positive from something negative (2c) <ol style="list-style-type: none"> a) I would like my experience to help other women (2a) b) I would like health professionals to learn from it (2b) c) Part of a process of moving on, which hasn't always been easy (5b) <ol style="list-style-type: none"> i) It has changed how I look at it ii) It brought back all the memories which was difficult 7) I've been able to choose who to share it with or not to share it (1c) <ol style="list-style-type: none"> a) It's opened up conversations about it with people <ol style="list-style-type: none"> i) It gives people an understanding of where you're coming from if they read it b) I haven't shared it with family or friends 8) Seeing it online was strange at first but now I'm glad I did it <ol style="list-style-type: none"> a) Looking at it online was the strangest thing I've ever done <ol style="list-style-type: none"> i) It was weird and embarrassing knowing other people could read it ii) I felt detached from it when I read it, it was hard to realise it had happened to me b) The website is a safe place to share it (2e) c) I read other women's stories when I went on the site to look at mine 9) I would recommend writing for other women <ol style="list-style-type: none"> a) Writing about it validates how you feel b) It's a personal decision whether or not to write it <ol style="list-style-type: none"> i) It can bring up difficult feelings so you need to be sure you're ready to do it c) Even if you don't post it online, writing it down is useful
<p>[LATERAL THEME]</p>	
<ol style="list-style-type: none"> 10. Am I justified in being traumatised? <ol style="list-style-type: none"> a) Does my experience fit with the experiences of other women who've had birth traumas? <ol style="list-style-type: none"> i) People might judge me so I needed to get across exactly how intense and overwhelming it is, to demonstrate I'm not overreacting 	

3. The process of writing
 - a) How I wrote it
 - i) Wrote all in on go
 - ii) Wrote it in stages
 - b) Choosing what to put in
 - i) I wanted to make sure I got everything in and didn't miss anything
 - ii) I wanted to show what was so traumatic for me and explain why I found it so difficult so people reading could understand
 - iii) I wanted to make sure I stuck to the facts but also showed how it made me feel
 - iv) My story develops each time I write it, and becomes more detailed
4. Writing was emotional
 - a) You have to relive it to write it and that hurts
 - i) It was hard to write about how it made me feel, but the facts of what happened were less difficult
 - ii) Sometimes I felt detached while writing it
 - b) There was a sense of relief after writing
5. The impact of writing
 - a) I think it has helped me in some ways
 - i) It's easier to talk about it now I've written about it
 - b) It's part of a process of moving on from what happened (6c)
 - i) It showed me where I am now
 - ii) It made me reevaluate what happened
 - c) It brought back what happened and made me think about it more for a few days

1. *Deciding to write my story*

This theme encompassed subthemes of writing ‘as a way to help myself’, through clarifying and ordering the experience, and writing as a routinely used strategy for difficult experiences. ‘I felt ready to write’ was another sub-theme, as were ‘it’s easier to write than talk to someone’ and ‘to gain a voice by telling my story in my own way’

For most of the women, deciding to write their story and choosing to send it to the website were separate “*I wasn’t initially going to do anything with it, I didn’t write it to publish it online or anything*” (Claire; line 43-44). Even those who were prompted to write their stories by seeing the website had previously thought about writing. “*I had thought about it before but I hadn’t done it, I think the website did spur me on to do it*” (Leanne; 88-90). This suggests that feeling ready to write was important in making the decision (theme 1b).

All the women interviewed had written their stories hoping to help themselves in some way “*I was hoping that would like make a difference*” (Vicky; 43; theme 1a). There were a number of ways in which women hoped writing their story might be useful to them. These included feeling that writing was a way to clarify and make sense of what had happened so reducing confusion about their experience “*it was to help me get my own thoughts into gear and to help me sort of sit down and actually go step by step through what exactly had happened* (Lizzie; 29-3; theme 1ai),.

Some women had a pre-existing coping strategy of writing “*the way that I kind of cope with things in life generally, if I kind of struggle with them, I like*

to write about things” (Alison; 84-86; theme 1aii). This was not the case for every woman; for some writing had been suggested by others, suggesting that it was not a habitual coping strategy “*somebody suggested that it might be an idea to write it down as a sort of account*” (Kelly; 11).

For many women, writing about what they had experienced was seen as an easier way to cope than talking to others, “*writing about things is a lot easier to deal with it, reading it back is not as hard as keep repeating it to somebody over and over*” (Jessica; 123-124; theme 1c). Women also felt that in writing they had the freedom to say whatever they wanted, rather than being restricted by other people’s needs, or being unable to find the right words “*I did notice that I was more freely able to express it in writing rather than through talking exactly how scared I felt*” (Kirsty; 362-363).

Feeling silenced about their experience seemed linked to this feeling and another reason for writing, hoping that it would help them to feel empowered by gaining control over the telling of their story “*It was just sort of recognizing that, even though things weren’t within my control, I could control how my story was told*” (Laura; 31-32; theme 1d). Interestingly, some women felt that they gained a voice and control simply by writing their story, as the limitations previously placed on them were no longer there, “*it’s something that’s silenced and nobody was interested in hearing about it, it was something I just could not talk about.*” (Alison; 187-188), although for other women this was more tied to motivations for sharing their story online as well “*And at last you’ve got, you’ve got a voice and for people that are going to read it and you might be able to help them*” (Anna; 257-258).

2. *Choosing to share my story on the BTA website*

This theme encompassed sub-themes of 'wanting to help other women in the same situation' through them feeling less alone and gaining hope; 'wanting to raise awareness as people are ignorant about birth and hoping to change the way that health professionals work'; 'to get something positive from something negative' through feeling the experience had been meaningful or was useful for others; 'ambivalence about people I know reading it', including friends and family or the staff involved; and 'being anonymous made it easier to share my story online'.

Contrasting in some ways with women's motivations for writing were their motivations for sharing their story online. While writing was generally seen as a personal choice aimed at helping oneself, women talked about sharing their story for more altruistic reasons. Helping other women feel less alone by sharing their story was a common theme. "*I thought if somebody would like to read it then let them read it and see if it can give them any sort of comfort*" (Jessica; 69-70; theme 2a, 2b). Some women also expressed the wish that their story would give hope to other women "*for them to know that even if things do go badly, they can still come out the other side of it*" (Laura; 163-164; theme 2aii).

A month after posting, women were hopeful that their story had been helpful, but had no way of knowing, as feedback or comments are not possible on the stories posted on the BTA site. "*I would love it if other women were to get comfort from it, that would mean so much to me*" (Anna; 282-284; theme 6a).

Some women hoped that by sharing their story, they would raise awareness about birth trauma and impact on the work of health professionals. A lack of awareness or sympathy about birth trauma and poor communication from nursing staff was discussed by some participants, “*My story particularly talks about how erm midwives’ communication can affect people.*” (Leanne; 65-66; theme 2b). Similar hopes were reflected a month after posting, but as with hopes for helping other women, they were unable to know “*it would be nice to have feedback saying you know ‘oh I’ve just read it and it will change how I’m going to treat women in the future and stuff*” (Carrie; 85-89; theme 6b).

Potentially both helping others and changing practice were seen as a way that women could gain something positive from their negative experiences, and find meaning in what they had experienced. “*For me putting it up [the story] is actually quite a big therapy because it’s like I’m happy about it being up because if it helps somebody else out then it means what I went through actually has a purpose.*” (Lizzie; 331-334; theme 2ci). This theme also emerged in the second interviews, where it encompassed both helping themselves and helping others, possibly because women had had the time to reflect on what posting their story online meant to them.

However, while women were usually hopeful that their writing would help other women in a similar position, they expressed ambivalence about people they knew reading their stories. Some women discussed feeling that it might hurt their family or friends to find out what had happened, and wanting to protect them from this. “*sometimes people don’t want to hear because they feel quite guilty if you explain to them what actually happened and why, how*

traumatic it really was because then it upsets them and I don't really want to do that" (Kirsty; 376-379; theme 2di).

Similarly, some women were concerned that the staff involved might recognise themselves, and were concerned about the impact it might have on them *"I think it's fair to say that, one of the main reasons why I didn't write it down before, or didn't share it before, was because I was worried, about the midwife, and I didn't want to get her into trouble"* (Kelly; 170-172; theme 2dii).

Perhaps because of these concerns about the impact on other people seeing their stories, women described finding the anonymity of the website helpful. Knowing that people did not know who they were meant that women felt they could be honest about their feelings, *"I think I wanted to be really honest about it and I thought that what I would do was, I know it was going to be anonymous when it went onto website and they wouldn't be able to know it was me"* (Leanne; 283-285; theme 2e). This made sharing the stories on the BTA website feel safe, in contrast to sharing with people close to them *"I think it's, its, kind of quite a safe way to get things out"* (Alison; 412).

Interestingly, a month later, some women had used the website and their story as a way to open up conversations with others *"I've kind of used it as a way for me to be able to talk to other people about what's been going on."* (Carrie; 4-5; theme 7a). For those women who had been able to do this, they generally described it as a positive experience, enabling others to understand what they had been through *"It felt really good, because before I felt like I was, to be honest it was like I was in hell, and then like nobody*

really knew what it was like, and then they could read it, it's like they've experienced it (Vicky; 68-70; theme 7ai).

However, not every woman had been able to share their writing with those close to them, due to embarrassment, *"I suppose it's the bit of an embarrassment because it's hugely personal and it's got a lot of how you feel"* (Olivia; 88-89; theme 7b). For others, it was feeling that others would not be interested or would find it too difficult to read *"I don't really know anybody that would be wanting to look at it really"* (Claire; 158).

3. *The process of writing*

This encompassed subthemes of 'how I wrote it', either all at once, or in stages; 'choosing what to put in', reflecting decisions about including feelings as well as facts, and what had made it so traumatic, and how the story develops each time it is written.

Once they had made the decision to write about their experiences, women went about it in different ways. Most women wrote their story all at once *"I did it all at once. I did it from morning till night every day until it was complete"* (Vicky; 57-58; theme 3ai), suggesting they felt they needed to get the story out in one go. For other women however, this would have been emotionally too overwhelming or impractical, so they wrote in stages *"I had to kind of separate it and do a bit at a time and that kind of thing and emotionally I found it really hard to focus and get it all down"* (Alison; 101-107; theme 3aii).

Choosing what to actually put into the story was something many women thought about carefully. Some women mentioned having written their story at least once prior to writing for the BTA website. It seemed to have developed over time to include more detail *“I think I felt like, it was like the fourth time I’d done it maybe, because I’d, you know, I’d, written brief points before to people but I’d never done it in as much detail”* (Anna; 67-70; theme 3biv). Some women wanted to cover everything, *“that was part of my process of writing it all down that I wanted to get the whole lot out so I didn’t, I didn’t sort of censor myself”* (Claire; 293-295; theme 3bi), whereas others left out some details, perhaps because it would have been too emotionally difficult to write about, or they were embarrassed *“I think I deleted one part because I thought it was actually really silly”* (Olivia; 268-269).

For some women it was important to explain what they found so traumatic about the experience, *“I wanted to get that clear really that that’s partly why I found it a traumatic experience because there were a few aspects about the trauma for me”* (Leanne; 200-202; theme 3bii), suggesting they might have been thinking of the reader’s judgment or understanding. Similarly, many women wanted to ensure that what they wrote was factually accurate, and also reflected how they had felt, *“I guess I wanted to emphasise how, how I felt through it, because, at the time when it was happening, that was very much, or that felt like it was very much not important”* (Kelly; 125-126; theme 3biii).

4. *Writing was emotional*

This included subthemes of ‘you have to relive it to write about it and that hurts’ encompassing feelings being most difficult to write about, and feelings of detachment for some women; and ‘a sense of relief after writing’.

Writing about their experience was described as emotional by every participant except one “*I found it actually quite emotional*” (Carrie; 120; theme 4). Needing to relive what had happened to be able to write about it accurately was one aspect that made it emotional. “*It was hard because when you write something that’s happened you’ve got to relive it*” (Kirsty; 231-232; theme 4a). The facts of what had happened were generally easier to write than the woman’s feelings, because it was difficult to find the words “*to actually put an experience based on kind of feelings, into words I found that quite challenging*” (Alison; 12-13; theme 4ai). Some women did describe feeling detached at points, or as if it was not quite real while writing, demonstrating that writing was not an entirely overwhelming emotional experience for all women “*I felt quite detached when I wrote it, it was quite strange, it was like I was writing a report for work*” (Olivia; 121-123; theme 4aⁱⁱ). The participant who did not report finding writing emotional had written her story in stages over a number of days, and it may be that this had enabled her not to engage with the content of her writing emotionally as other participants had “*I didn’t find it difficult to write about at all, erm I find it more difficult reading about other people’s experiences*” (Jessica; 140-143).

After the strong emotions of writing, most women reported feeling a sense of relief, like a weight off their mind or as if they no longer needed to think about

it *"It was like a sense of relief. I, er, it was like a weight lifted off my shoulder"* (Vicky; 72-74; theme 4b).

5. *The impact of writing*

This included subthemes of 'I think it has helped me in some ways', by making it easier to talk about; 'it's part of a process of moving on from what happened', including showing me where I am now, and enabling re-evaluation of the experience; and 'it brought back what happened and made me think about it more for a few days'.

All the participants described some sort of impact on themselves following writing, even in the first interview. In general, women thought that it had helped them in some way, even if they were unsure exactly how *"I think it's a good, it's a good thing"* (Anna; 249; theme 5a). Some women felt that it had helped them clarify what had happened, mirroring their motivations for writing *"I think it helped me to kind of clarify exactly what happened as well, because it's quite a confusing picture in my mind of what actually happened that day and writing it down did help me to kind of work out what time everything happened"* (Leanne; 159-162). Other women felt that writing down what had happened had in some way helped them get the experience out of their heads *"I guess it was kind of therapeutic as well, to get it out and then it's almost like it if it's out on screen, or on paper, then it's not in my head any more"* (Kelly; 58-60).

Perhaps surprisingly, given the ambivalence many women felt towards allowing people that they knew to read their story, some women had found writing helpful in enabling them to be able to talk about their experiences

more easily. *"its made me feel a lot stronger and a lot more positive about the situation, I just find it a lot erm a lot easier to talk about"* (Jessica; 217-218; theme 5ai). These were all women who had written their stories some time before the interview, suggesting that these interpersonal effects may be related to timing or happen differently for different women, and this was reflected in the second template, as discussed above.

Some women felt that writing their story had been a part of moving on from the trauma for them. It had marked a stage in the process of feeling better *"It's actually, it's not like a – like that's it, is done now but it's definitely a sort of step towards that."* (Lizzie; 389-390; theme 5b). For some women this had been due to the fact that it had shown them where they were now, which could be positive *"I think it made me feel that I feel a lot better about it now than I did,"* (Kirsty; 355-357; theme 5bi). For other women, writing illustrated that they had not recovered as much as they had thought *"although I'd sort of I thought I'd recovered you know, and I'd put it behind me, I was suddenly filled with all those the memories and the feelings that I'd had at the time"* (Vicky; 65-68). Some women found writing had been an opportunity to distance themselves, re-evaluate what had happened to them and consider what they might do in future. *"I've kind of put in at the end what I felt I'd learnt from it and what id maybe do differently if I had another child so maybe it helped me to erm think about that, think about like I say about the future."* (Leanne; 392-396; theme 5bii).

The impact of writing was also discussed in the second interviews. Most women felt that it had helped them move on, even where writing had raised difficult emotions *"there was a point when I thought maybe I shouldn't have*

dug up the past and erm, erm and then I thought well no because it's part of my life really and I have to, you know I have to deal with it so no I don't regret doing it erm so I thought that was a good thing." (Olivia; 32-36; theme 6c).

Being able to gain a new perspective on their experience, was also seen as an important part of moving on "*I guess it's all part of processing the whole thing isn't it erm writing it and then perhaps when you read it another time it kind of gets a bit less difficult each time*" (Carrie; 40-41).

However, the impact of writing was not all positive. For some women, it had brought back strong feelings and made them think about the traumatic experience again "*It does make me think about it a little bit more than what I normally would*" (Kirsty; 268; theme 5c). Not all women saw this as a negative thing, perhaps because writing enabled them to re-evaluate what happened "*I've kind of thought about it more since writing it but that's not necessarily a bad thing, I guess that's normal*" (Alison; 584-586).

8. Seeing it online was strange at first, but now I'm glad I did it

This included subthemes of 'looking at it online was the strangest thing I've ever done' due to knowing others could read it and feeling detached from it; 'the website is a safe place to share it'; and 'I read other women's stories when I went online to look at mine'.

Women described the experience of seeing their stories online as odd or embarrassing, because they knew other people were able to read it "*It feels so strange knowing that other people can read it as well*" (Kirsty; 13; theme 8ai).

It also seemed that women found seeing their story online shocking, or making what happened to them seem more real, evoking strong emotions “*it was kind of, it was weird to start with, sort of the first time I looked at it, it kind of hit me, woah, that happened*” (Kelly; 8-9). This sense that seeing it on a website made it more real seemed to change over time, even for one participant who initially found it disturbing “*it was like seeing the words in front of me and like seeing it there, it was just, it was like “oh god, it’s official, it’s there” do you know what I mean? It’s certainly, it was not a nice experience but now I’ve got over that shock of seeing it ... I feel quite excited that somebody who’s been through the same thing may see it*” (Claire; 84-88).

In contrast, for some women, there was no emotion associated with seeing their story on the website, and they felt much more detached, or even uncertain that they were reading about themselves “*and it was sort of like I read it and I was like I’m not even sure this is, this couldn’t have possibly been me*” (Laura; 54-55; theme 8a_{ii}).

9. I would recommend writing for other women

This included subthemes of ‘writing about it validates how you feel’; ‘it’s a personal choice to write about it’; and ‘even if you don’t post it online, writing it down is useful’.

Despite some of the negative emotions that writing and sharing their stories online evoked, most participants recommended writing for other women “*I think I would recommend for them to do it because for me it helped me*” (Leanne; 95; theme 9). Some women emphasised positive reasons to write

about their experiences, such as validation of their feelings *“I suppose it validates the whole thing”* (Anna; 181; theme 9a). Other women were more cautious in advising others to write and emphasised that this should be a personal choice *“I think you have to do what is best for you”* (Olivia; 112; theme 9b). Similarly, one participant emphasised the need to ensure that other women considering writing are emotionally able to do so, as *“it can open a lot of wounds to do it, you need to be able to deal with, give it the time that it needs to be dealt with as well”* (Laura; 118-119; theme 9bi). Some women emphasised that even if women did not share their stories with anyone, simply writing it would be useful *“I would just say, that even if it’s not to go online, to have it all in one place and written out is one of the best things I’ve done to help overcome it”* (Lizzie; 78-80; theme 9c).

10. Overarching theme: Am I justified in being traumatised?

This theme incorporated a subtheme of ‘does my experience fit with the experiences of other women who’ve had birth traumas?’

This theme seemed to intersect with other themes, influencing some participants’ decisions to write and share their stories, the process of writing, and the impacts of doing so. Half of the participants expressed concerns about whether their experience was traumatic enough for the BTA, reflecting a significant subgroup of women. *“I suppose the fact that it was, you know a normal birth and the big thing for me is I felt well how can, you know it’s so ridiculous that I feel so traumatised by that when other people have had so much more horrendous things happen”* (Carrie; 288-291; theme 10a). This seemed to have made it more difficult for this group of women to decide to

share their stories, perhaps due to fear of judgement by the reader “*you do worry when you are reading it that people are going think that you know that you are over reacting, you are being irrational*” (Olivia; 225-227; theme 10ai).

However, other women seemed clear that they had experienced a traumatic event and this had had a significant impact on them “[*I wrote about*] *my experience of post natal depression but obviously a lot of that was in my opinion to do with the labour.*” (Vicky; 27-29). One woman seemed to have understood more about the impact that the birth had had on her through the writing, “*certainly I would say that from reading erm different stories and from writing my own story its amazing how much you suddenly realise that you’re not okay*” (Lizzie; 350-352), although initially she had been concerned about how her story might fit in with the others on the website “*a large part of it actually was I didn’t feel that my story was as bad as other women’s*” (Lizzie; 321-322).

Discussion

This is the first study to investigate the experience of writing about a traumatic experience (specifically traumatic birth experiences) and sharing these stories online. Qualitative analysis of interviews with 12 women led to the development of two templates, developed from a priori themes. These reflected a journey from the decision to write the story, and share it, to the impacts this had had, both after writing and once the story had been shared online.

Women described various reasons to write and share their story online, including hopes that writing would help them and others and impact on the practice of healthcare professionals. Women went about writing differently, and this process was usually highly emotional. A range of impacts were described, both of writing and of later seeing the story on the website. Participants found writing enabled them to understand their experiences differently, feel that they had gained something positive from something negative and for some women had enabled discussion of their experiences with those close to them which had not been possible before. While most women were positive about the overall experience, it was difficult at points for many, particularly during the actual writing and for some time afterwards, bringing back the memories and making them feel more vulnerable again. Similarly, seeing their story online was described as a strange experience, and some women felt detached from their writing, as if it was not them, although these feelings of strangeness tended to change over time. Women said they would recommend writing for others, with the caveat that it can be

challenging and so others needed to be sure they were ready to do so before deciding to write.

Cutting across these processes for half of the women was the concern that they were not justified in feeling as traumatised as they were; that their experiences did not fit with some of the other stories posted on the BTA website, and that maybe others would judge them negatively for feeling traumatised.

Theoretical implications

Choosing to write and share stories about traumatic birth experiences

One of the motivations for women in this study to write and share their stories was to help themselves cope and help others, thus gaining some meaning or positive outcome from their traumatic experiences. The search for meaning has been suggested as an important part of cognitive adaptation to threatening health events (Taylor, 1983), and being able to provide support to others through sharing one's story could be viewed a way of making a traumatic experience meaningful. It has been suggested that meaning making is associated with reduced levels of PTSD symptoms (Tuval-Mashiach et al., 2004), suggesting that the positive impacts described by women are likely to relate to their attempts to make sense of their experiences.

Another aspect of cognitive adaptation described by Taylor (1983) is gaining a sense of mastery. A meta-synthesis of the ways in which women describe their traumatic birth experiences outlined a number of themes, including

feeling trapped and out of control (Elmir et al., 2010). In the present study, women described gaining a voice where before they had felt silenced, perhaps acting as a counter to their previous feelings, and so gaining a sense of mastery over their experiences. Similar themes of being empowered were described in an investigation of the benefits of sharing traumatic birth experiences with a researcher (Beck, 2005), suggesting this sense of mastery and empowerment may be important in moving on from a traumatic event.

Being unable to speak to others about their experiences, or finding it easier to write than speak about their feelings was another reason for writing. It has been suggested that writing online in blogs can be used as a way to safely express emotion (Tan, 2008). However, women in this study discussed feeling concerned about others reading their stories, particularly family or friends, or staff who had been involved in the birth, due to worries about being judged or hurting others. Concern about being judged seems to reflect the unique social context of traumatic birth experiences (Ayers et al., 2008); birth is socially constructed as a positive experience and so women can feel that it is unacceptable for them to discuss their negative feelings about it with others (Nicholls & Ayers, 2007). This can lead to feelings of exclusion from hoped for positive experiences of motherhood (Beck, 2011) and an overall negative impact on relationships (Nicholls & Ayers, 2007). Social support (or its lack) is likely to be an important factor in developing and maintaining distress following traumatic birth (Ford, Ayers, & Bradley, 2010). Positive feedback (online or offline) could be conceptualized as a form of social support that could be protective, as with blogs (Tan, 2008). Some women in

this study described wanting feedback, as is available on blogs, however others found the anonymity and lack of feedback made them feel more able to share their stories, suggesting that the possibility of feedback from others can be challenging, particularly with events socially constructed as positive such as birth.

The process of writing

Expressive writing research generally instructs participants to write for a prescribed amount of time over one or several days, implying that they write about their experiences all at once (Pennebaker, 2004). In contrast, no guidance is given by the BTA about the way in which women should write about their experiences. Some women described writing their experiences all in one go, while others wrote over time, perhaps as a protective strategy. Women tended to report positive experiences far more than negative experiences, although some negatives were reflected, which may reflect the processes that they used and the difference between being told how to write (as in the expressive writing paradigm) and being free to choose how they wrote. There is some evidence that being instructed to use a narrative structure is associated with less stress in relation to the emotionality of writing, in a non-traumatised student population (Danoff-Burg, Mosher, Sewell and Agee, 2010). Most women in this study reported feeling that the opportunity to structure their experiences into a narrative had been one of the most helpful aspects, suggesting that this structure is useful. This also implies that women should be instructed to aim to construct a narrative and this provides the most effective way of managing the emotional impact.

Similarly, while there is nothing in the literature comparing writing all at once with writing in stages, it is possible that writing in stages represents a way to manage the emotional impact of reliving the experience. This is further supported by the participant who did not find the experience to be emotional having written her story in stages over several days. Similarly the mode of writing may have been a protective factor. It has been suggested that writing about emotional events on a computer is associated with less emotional processing than writing longhand (Brewin & Lennard, 1999). This suggests that typing may have been a useful strategy for women to protect themselves from extremes of emotionality, enabling more manageable processing than writing longhand. Given that many women found the experience distressing anyway, this might be much a more protected way for them to write about their experiences. However, experiencing the emotion associated with the trauma seems to be essential for habituation or cognitive restructuring to occur, and failure to engage with the emotion is associated with a poorer outcome in PTSD therapy (Foa & Rothbaum, 1998; Grey, Young, & Holmes, 2002). It seemed that women were still experiencing some emotion while writing, but were moderating this to manageable levels given their circumstances, rather than avoiding it completely.

The impact of writing

Many of the women in this study reported that writing their stories had been a positive experience, and had helped them begin to move on from their traumatic experiences. This relates to previous research into writing more generally. Research has generally found that there is a small positive impact of writing about a significant emotional experience (Breslau, 2009) for non-

clinical populations. The impact of writing has been less extensively studied in clinical populations. Participants in the present study seem more likely to have fulfilled clinical criteria than represent an entirely non-clinical group, even though they were not recruited from a clinical setting. There are limited services for this population, possibly meaning that distressed women are more likely to seek help and support elsewhere. Writing has been suggested to reduce post traumatic symptoms, where participants have experienced a traumatic event and are at risk of developing PTSD symptoms (Smyth, Hockemeyer, & Tulloch, 2008). It has not been effective as a preventative intervention for a high risk group (Bugg et al., 2009), suggesting writing is more likely to be a useful intervention following symptom development. For others, particularly those who find it difficult to express emotion, writing may actually increase distress (O'Connor & Ashley, 2008), although in this study any negative shifts in mood appeared to be brief.

Writing has been suggested to be most effective in emotional regulation when there is a balance of positive to negative emotional words used, and so may enable modulation of negative emotions (Kerner & Fitzpatrick, 2007). Negative memories of birth seem to be linked to increased PTSD symptoms, while positive memories do not (Briddon, Slade, Isaac, & Wrench, 2011). It may be that writing enabled this balance of positive and negative emotions to occur.

Some women in this study discussed feeling that writing about their experiences had enabled them to organise and understand what had happened to them. This fits with the cognitive behavioural model of PTSD (Ehlers & Clark, 2000), which suggests that traumatic experiences are not

well integrated into memory, due to difficulties encoding them at the time and later efforts to suppress traumatic memories (Brewin & Holmes, 2003). Therapy involves the person reliving their traumatic experience to enable organisation and integration into memory of the experience (Ehlers et al., 2005), and it may be that a similar process is occurring when women write their stories, in line with one of the mechanisms by which expressive writing is thought to have an impact (Sloan, Marx, & Epstein, 2005). The process of writing was described as highly emotional and like reliving the experience for almost all women, suggesting support for this hypothesised mechanism of expressive writing.

Rereading one's story would also seem likely to function as a form of exposure or reliving, enabling habituation or cognitive reorganisation (Ehlers & Clark, 2000; Foa & Rothbaum, 1998), again in line with one of the mechanisms suggested to be involved in the impact of expressive writing (Sloan and Marx, 2004). All women in this study had read their story on the website at least once. They discussed feeling that seeing their stories on the website was disconcerting or strange as they knew that other people could then read it. Some described feeling as if they were reading about someone else, suggesting a distancing from their experiences. It is unclear if this distancing made exposure to their traumatic experiences more manageable than exposure through therapeutic reliving (Ehlers & Clark, 2000; Ehlers et al., 2005), or reading from a handwritten sheet (Brewin & Lennard, 1999), or if the experience was similar to that of therapy. It is also unclear how this related to the third potential mechanism by which expressive writing is thought to function, the reduction of emotional avoidance (Sloan, Marx, &

Epstein, 2005). Avoidance might actually seem to be increased by this distancing, however given that most women found the writing itself to be an emotional experience, this may not have been the case. The distancing experienced by women as they read on screen may instead have allowed them to moderate the emotional impact and not have to relive the experience again. This may have made reading on a screen act as a protective factor, allowing limited and controlled emotional exposure.

Women's comparisons of their experiences with others on the website

Half the participants in this study reported feeling concerned that their experiences might not fit with those on the website, or that they might not be justified in feeling as traumatised as they did. The comparisons they seemed to be making with others may have been related to the unique social context of birth (Ayers et al., 2008) and related fears of judgement from others. Social comparisons with people who are worse off are common in populations threatened with significant health problems (Buunk & Gibbons, 2007) and may make people feel better about themselves, while comparisons with those seen as superior can have the opposite effect. However, in this study comparisons with those seen as worse off did not seem to make the participants feel better, but make them feel less like part of the group of women traumatised by birth. This may relate to the use of social comparison in group categorization processes. Social comparisons are suggested to be used by people to ascertain their own group membership and that of others (Hogg, 2000), and so reduce uncertainty. However it appears that for some women, making social comparisons with those worse off than themselves had made them feel more uncertain about their

membership of the group of traumatised women. This then made them feel guilty about feeling traumatised and so have the opposite effect than is usually seen with such downward social comparisons. It is possible that comparing oneself with others seen as legitimately belonging to a group may function as an upward social comparison, thus threatening them, and so explain the negative impact of these comparisons.

It has been suggested that women are more likely to feel interdependent (Gardner, Gabriel, & Hochschild, 2002). Individual differences in interdependence and need for social comparisons (Buunk & Gibbons, 2007) may relate to the reasons why only some women made such comparisons and others did not seem affected, or felt completely part of the community of women on the website.

Clinical implications

Given the relative lack of clinical services for women experiencing post traumatic symptoms following birth, and the limited research on interventions for this group (Ayers et al., 2008), this study suggests that writing may be a way for women to help themselves when services are unavailable. This could be encouraged by health professionals, such as health visitors, or by voluntary organisations such as the BTA. It has been suggested (Kerner & Fitzpatrick, 2007) that the construction of the story, rather than the story itself is the most important factor in making writing useful in psychotherapy, which fits with women's perception that writing enabled them to make sense of their experiences. This suggests that, people writing about traumatic experiences

should be encouraged to engage with the process of constructing the story, in order to gain the most from it.

Implications for the BTA

There are some caveats to encouraging women to write about traumatic birth experiences (or indeed anyone to write about any traumatic experience). There is no evidence that the writing actually reduced women's symptoms, although expressive writing research suggests some symptom reduction is likely (Frattaroli, 2006). Women also reported a number of negative effects, including increases in the amount they thought about the experience for some time following writing, and shock and sometimes distress when seeing their story online. As in therapy for PTSD, where the client is warned that they will need to discuss the event and this may be distressing (Ehlers et al., 2005; Foa & Rothbaum, 1998), it will be important in the future that women are advised by the BTA of these potential negative consequences, in order that they can make an informed decision about their readiness to write. It is also unclear that writing is helpful for everyone, and at present it is unclear who is most likely to benefit. This should be made clear to women, again to enable informed decision making.

Strengths and Limitations

This is the first study of its kind, exploring the subjective experience of writing about a traumatic experience and sharing this online. Previous work into the experience of sharing stories online has generally focused on the linguistic properties of such writing and how these may lead to adjustment (Olde et al., 2006), however there has been no research aimed at understanding why

people choose to share their stories online and the perceived impact this has on them. There are some limitations to this study. The sample in this instance was self-selecting; of those approached to take part approximately half consented and completed the study. However, the total potential sample was limited to women who use online resources and are likely to hold positive beliefs about the utility of doing so, therefore making results potentially biased in favour of writing and sharing online. The results suggest many more positive outcomes than negatives for the women who participated, suggesting that there are likely to have been biases in their reporting of their experiences. The design of the study with women completing two interviews may have impacted on this, with women potentially feeling more positive about their writing following the first interview and this being reflected in the second interview. Similarly, the researcher may have inadvertently impacted on women's reflections about writing, through the questions asked and the particular topics followed up in the interviews themselves, thus making women more likely to discuss positives than negatives.

The small sample size also limits generalisability of the results.

Women had all written their stories relatively recently, however there was a range of up to three months since they had written, and not all women had originally chosen to write with the intention of sending their story to the BTA. To maintain homogeneity, it might have been useful to only recruit women who intended to write for the BTA, although this would have lost some of the understanding of the range of motivations to write.

Participants completed the IES-R (NICE, 2007) at the start of the study, both for their feelings at that point, and at their worst, in order to contextualise interviews. However, it might have also been useful to collect data on women's symptom levels both at the second interview and at a 3 month follow-up, to provide objective data on any changes following writing and sharing ones story.

Future research directions

Future research in this area should investigate who writing about a traumatic experience and sharing this story is likely to be helpful for, as it was clear from this study that while the experience was seen as generally positive, this was not true at all points. Quantitative research should investigate the effectiveness and efficacy of writing and sharing one's story online to reduce post traumatic distress in women, and investigate the characteristics of those who do or do not benefit from such an intervention. Similarly, the similarities or differences between exposure to traumatic experiences in therapy or online require further exploration, as do the potential differential impacts of the mode used to write and relive traumatic experiences (typed, handwritten, auditory).

From the interview data, most women mentioned hopes that their stories would be used by other women to help them through similar experiences through feeling less alone, or giving hope. Similarly, women hoped that health professionals' work might be impacted by their writing. Drawing on this, it would be interesting to understand how women's stories are used,

whether others do gain comfort or hope from reading their stories, and if so, what processes are involved in this.

Further research more generally is needed into the impact of sharing traumatic experiences online. The potential distancing effect of seeing one's story on a public website requires further exploration, in comparison with, for example therapeutic reliving, or rereading private writings. The impact of feedback from sharing one's story online also requires exploration. Stories on the BTA website cannot be commented on, something that is fairly unique among websites. It would be useful to explore what the impact of having feedback on one's story is, both for women who have had traumatic birth experiences and for traumatic experiences in general, as there is a clear risk that feedback could be difficult to receive, particularly where there is a concern about social judgement as with birth.

Conclusions

The aim of this study was to explore and understand women's motivations for writing about traumatic birth experiences and sharing these online, to understand the process of writing, and understand the impact their writing and its subsequent use had on women. Women's motivations for writing and sharing online and the impact of doing so were complex. Participants described a range of reasons to write their story and share it online, including to help themselves and the hope that it would help others. Following writing and online posting of their story, women described a range of impacts, including enabling them to make sense of their experiences and, for some women, feel more able to talk to others. It seemed that writing enabled women to make meaning from their experiences and to understand what had happened to them. While writing was an emotional and difficult process, emotional engagement with the writing seemed to enable processing of their experiences and most women described finding it useful. However, a significant subgroup of women expressed concern that their experiences did not fit with those of other women whose stories were posted online and this may have related to the wider social context around birth, which is generally seen as a positive experience. The understanding developed in this study can be used in future to provide advice to women about what they might experience should they decide to write about their experiences and share them online, particularly in non-clinical (online) settings. In combination with existing literature, this study also suggests a number of potential future research directions.

References

- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders – 4th Ed. Diagnostic and Statistical Manual of Mental Disorders – 4th Ed* American Psychiatric Publishing, Inc.
- Ayers, S., Joseph, S., McKenzie-McHarg, K., Slade, P., & Wijma, K. (2008). Post-traumatic stress disorder following childbirth: current issues and recommendations for future research. *Journal of Psychosomatic Obstetrics and Gynaecology*, 29, 240-250.
- Ayers, S., Wright, D. B., & Wells, N. (2007). Symptoms of post traumatic stress disorder in couples after birth: association with the couple's relationship and parent–baby bond. *Journal of Reproductive and Infant Psychology*, 25, 40-50.
- Baker, J. R., & Moore, S. M. (2008). Distress, coping, and blogging: comparing new myspace users by their intention to blog. *Cyberpsychology & Behavior* 11, 81-50
- Banister, P., Bunn, G., Burman, E., Daniels, J., Duckett, P., Goodley, D., Lawthom, R., et al. (2011). *Qualitative Methods in Psychology: A Research Guide* Open University Press.
- Beck, C. T. (2005). Benefits of participating in internet interviews: Women helping women. *Qualitative Health Research*, 15, 411-422.

- Beck, C. T. (2011). A metaethnography of traumatic childbirth and its aftermath: amplifying causal looping. *Qualitative Health Research, 21*, 301-311.
- Beck, C. T., & Watson, S. (2010). Impact of birth trauma on breast-feeding: a tale of two pathways. *Nursing Research, 57*, 228-236.
- Breslau, N. (2009). The epidemiology of trauma, PTSD, and other posttrauma disorders. *Trauma, Violence & Abuse, 10*, 198-210.
- Brewin, C. R., & Lennard, H. (1999). Effects of mode of writing on emotional narratives. *Journal of Traumatic Stress, 12*, 355-361.
- Brewin, C. R., Dalgleish, T., & Joseph, S. (1996). A dual representation theory of posttraumatic stress disorder. *Psychological Review, 103*, 670 - 686.
- Brewin, C. R., & Holmes, E. A.,. (2003). Psychological theories of posttraumatic stress disorder. *Clinical Psychology Review, 23*, 339-376.
- Briddon, E., Slade, P., Isaac, C., & Wrench, I. (2011). How do memory processes relate to the development of posttraumatic stress symptoms following childbirth? *Journal of Anxiety Disorders, 25*, 1001-1007.
- Bugg, A., Turpin, G., Mason, S., & Scholes, C. (2009). A randomised controlled trial of the effectiveness of writing as a self-help intervention for traumatic injury patients at risk of developing post-traumatic stress disorder. *Behaviour Research and Therapy, 47*, 6-12.

- Buunk, A. P., & Gibbons, F. X. (2007). Social comparison: The end of a theory and the emergence of a field. *Organizational Behavior and Human Decision Processes*, 102, 3-21.
- Cigoli, V., Gilli, G., & Saita, E. (2006). Relational factors in psychopathological responses to childbirth. *Journal of Psychosomatic Obstetrics & Gynecology*, 27, 91-97.
- Creamer, M., Bell, R., & Failla, S. (2003). Psychometric properties of the Impact of Event Scale—Revised. *Behaviour Research and Therapy*, 41, 1489-1496.
- Czarnocka, J., & Slade, P. (2000). Prevalence and predictors of post-traumatic stress symptoms following childbirth. *The British Journal of Clinical Psychology*, 39, 35-51.
- Danoff-Burg, S. Mosher, C.E., Sewell, A.H. & Agee, J.D. (2010) Does narrative writing instruction enhance the benefits of expressive writing? *Anxiety, Stress and Coping: An International Journal*, 23, 341-352
- Davies, J., Slade, P., & Wright, I. (2008). Posttraumatic stress symptoms following childbirth and mothers' perceptions of their infants. *Infant Mental Health Journal*, 29, 537-554.
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour research and therapy*, 38, 319-45.

- Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., & Fennell, M. (2005). Cognitive therapy for post-traumatic stress disorder: development and evaluation. *Behaviour Research and Therapy*, *43*, 413-431.
- Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M., Herbert, C., & Mayou, R. (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. *Archives of General Psychiatry*, *60*, 1024-1032.
- 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*, 2142-2153.
- Finlay, L., & Gough, B. (2003). *Reflexivity: a practical guide for researchers in health and social sciences*. Wiley-Blackwell.
- Foa, E. B., & Rothbaum, B. O. (1998). *Treating the trauma of rape: Cognitive behavioral therapy for PTSD*. New York: Guildford Press.
- Forcada-Guex, M., Borghini, A., Pierrehumbert, B., Ansermet, F., & Muller-Nix, C. (2011). Prematurity, maternal posttraumatic stress and consequences on the mother-infant relationship. *Early Human Development*, *87*, 21-26.
- Ford, E., & Ayers, S. (2009). Stressful events and support during birth: the effect on anxiety, mood and perceived control. *Journal of Anxiety Disorders*, *23*, 260-268.

- Ford, E., Ayers, S., & Bradley, R. (2010). Exploration of a cognitive model to predict post-traumatic stress symptoms following childbirth. *Journal of Anxiety Disorders, 24*, 353-359.
- Frattaroli, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin, 132*, 823-865.
- Gamble, J., Creedy, D., Moyle, W., Webster, J., McAllister, M., & Dickson, P. (2005). Effectiveness of a counseling intervention after a traumatic childbirth: A randomized controlled trial. *Birth, 32*, 11–19.
- Gardner, W. L., Gabriel, S., & Hochschild, S. (2002). When you and I are “we,” you are not threatening: the role of self-expansion in social comparison. *Journal of Personality and Social Psychology, 82*, 239-251.
- Gottvall, K., & Waldenstrom, U. (2002). Does a traumatic birth experience have an impact on future reproduction? *BJOG: An International Journal of Obstetrics and Gynaecology, 109*, 254-260.
- Grey, N., Young, K., & Holmes, E. A. (2002). Cognitive restructuring within reliving : a treatment for peritraumatic emotional “ hotspots ” in posttraumatic stress disorder. *Behavioural and Cognitive Psychotherapy, 30*, 37-56.
- Halligan, S. L., Clark, D. M., & Ehlers, A. (2002). Cognitive processing, memory, and the development of PTSD symptoms: Two experimental analogue studies. *Journal of Behavior Therapy and Experimental Psychiatry, 33*, 73-89.

- Hirai, M., & Clum, G. A. (2005). An Internet-based self-change program for traumatic event related fear, distress, and maladaptive coping. *Journal of traumatic stress, 18*, 631-636.
- Hogg, M.A. (2000): Subjective Uncertainty Reduction through Self-categorization: A Motivational Theory of Social Identity Processes. *European Review of Social Psychology, 11*, 223-255
- Hoyt, T., & Pasupathi, M. (2008). Blogging about trauma: Linguistic measures of apparent recovery. *E-journal of Applied Psychology, 4*, 56-62.
- Johnston, O., Startup, H., Lavender, A., Godfrey, E., & Schmidt, U. (2010). Therapeutic writing as an intervention for symptoms of bulimia nervosa: effects and mechanism of change. *The International Journal of Eating Disorders, 43*, 405-419.
- Kerner, E. A., & Fitzpatrick, M. R. (2007). Integrating writing into psychotherapy practice: A matrix of change processes and structural dimensions. *Psychotherapy: Theory, Research, Practice, Training, 44*, 333-346.
- King, N. (2004). Using templates in thematic analysis of text. In C. Cassell & G. Symon (Eds.), *Essential guide to qualitative methods in organizational research*. SAGE.

- Lange, A., Rietdijk, D., Hudcovicova, M., van de Ven, J.-P., Schrieken, B., & Emmelkamp, P. M. G. (2003). Interapy: A controlled randomized trial of the standardized treatment of posttraumatic stress through the internet. *Journal of Consulting and Clinical Psychology, 71*, 901-909.
- Leeds, L., & Hargreaves, I. (2008). The psychological consequences of childbirth. *Journal of Reproductive and Infant Psychology, 26*, 108-122.
- Lemola, S., Stadlmayr, W., & Grob, A. (2007). Maternal adjustment five months after birth: the impact of the subjective experience of childbirth and emotional support from the partner. *Journal of Reproductive and Infant Psychology, 25*, 190-202.
- Maggioni, C., Margola, D., & Filippi, F. (2006). PTSD, risk factors, and expectations among women having a baby: A two-wave longitudinal study. *Journal of Psychosomatic Obstetrics & Gynecology, 27*, 81-90.
- NICE. (2005). *Post-traumatic stress disorder: The management of PTSD in adults and children in primary and secondary care*. London: National Institute for Clinical Excellence
- NICE. (2007). *Antenatal and postnatal mental health: the nice guideline on clinical management*. London: National Institute for Clinical Excellence.
- Nicholls, K., & Ayers, S. (2007). Childbirth-related post-traumatic stress disorder in couples: A qualitative study. *British journal of health psychology, 12*, 491-509.

- Nicholls, S. (2009). Beyond expressive writing: Evolving models of developmental creative writing. *Journal of Health Psychology, 14*, 171-180.
- Olde, E., Kleber, R. J., van der Hart, O., & Pop, V. J. M. (2006). Childbirth and Posttraumatic Stress Responses. *European Journal of Psychological Assessment, 22*, 259-267.
- O'Connor, D. B., & Ashley, L. (2008). Are alexithymia and emotional characteristics of disclosure associated with blood pressure reactivity and psychological distress following written emotional disclosure? *British Journal of Health Psychology, 13*, 495-512.
- Parfitt, Y. M., & Ayers, S. (2009). The effect of post-natal symptoms of post-traumatic stress and depression on the couple's relationship and parent-baby bond. *Journal of Reproductive and Infant Psychology, 27*, 127-142.
- Peleg, T., & Shalev, A. Y. (2006). Longitudinal studies of PTSD: overview of findings and methods. *CNS spectrums, 11*, 589-602.
- Pennebaker, J. W. (1997). Writing About Emotional Experiences as a Therapeutic Process. *Psychological Science, 8*, 162-166.
- Pennebaker, J. W. (2004). Theories, Therapies, and Taxpayers: On the Complexities of the Expressive Writing Paradigm. *Clinical Psychology: Science and Practice, 11*, 138-142.

- Possemato, K., Ouimette, P., & Geller, P. A. (2009). Internet-Based Expressive Writing for Kidney Transplant Recipients: Effects on Posttraumatic Stress and Quality of Life. *Traumatology, 16*, 49-54.
- Roberts, N., Kitchiner, N., Kenardy, J., & Bisson, J. (2009). Systematic review and meta-analysis of multiple-session early interventions following traumatic events. *American Journal of Psychiatry, 166*, 293–301.
- Sloan, D. M., & Marx, B. P. (2004). Taking pen to hand: Evaluating theories underlying the written disclosure paradigm. *Clinical Psychology: Science and Practice, 11*, 121-137.
- Sloan, D. M., Marx, B. P., & Epstein, E. M. (2005). Further examination of the exposure model underlying the efficacy of written emotional disclosure. *Journal of Consulting and Clinical Psychology, 73*, 549-554.
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research* Sage Publications, London
- Smyth, J. M., Hockemeyer, J. R., & Tulloch, H. (2008). Expressive writing and post-traumatic stress disorder: effects on trauma symptoms, mood states, and cortisol reactivity. *British Journal of Health Psychology, 13*, 85-93.

- Soet, J. E., Brack, G. A., & Dilorio, C. (2003). Prevalence and predictors of women's experience of psychological trauma during childbirth. *Birth, 30*, 36-46.
- Strauss, A. L., & Corbin, J. M. (1990). *Basics of qualitative research: grounded theory procedures and techniques*. Sage Publications, London
- Tan, L. (2008). Psychotherapy 2.0: MySpace blogging as self-therapy. *American Journal of psychotherapy, 62*, 143-163.
- Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist, 38*, 1161-1173.
- Tuval-Mashiach, R., Freedman, S., Bargai, N., Boker, R., Hadar, H., & Shalev, A. Y. (2004). Coping with trauma: Narrative and cognitive perspectives. *Psychiatry, 67*, 280-293.
- Weiss, D. S., & Marmar, C. R. (1996). The impact of event scale revised. In J. P. Wilson & T. M. Kean (Eds.), *Assessing psychological trauma and PTSD: a practitioner's handbook*. New York: Guildford.
- van Emmerik, A. P., Kamphuis, J. H., & Emmelkamp, P. M. G. (2008). Treating acute stress disorder and posttraumatic stress disorder with cognitive behavioral therapy or structured writing therapy: a randomized controlled trial. *Psychotherapy and Psychosomatics, 77*, 93-100.

Appendices

Appendix 1: Ethics Approval Letter

Your submission to the Department of Psychology Ethics Sub-Committee (DESC) entitled "Exploring the process of writing about and sharing traumatic birth experiences online: a qualitative investigation of women's experiences (single study)" has now been reviewed. The committee believed that your methods and procedures conformed to University and BPS Guidelines.

I am therefore pleased to inform you that the ethics of your research are approved. You may now commence the empirical work.

Yours sincerely,

Prof Paschal Sheeran

Chair, DESC

Appendix 2: Initial invitation e-mail to potential participants

Dear _____,

Thank you for volunteering to write about your birth experience for the website. We are currently involved in some research with Sarah Blainey. She is carrying out doctoral research at the University of Sheffield as part of her training to become a clinical psychologist working in the NHS. She is interested in finding out about writing about birth experiences online and would like to invite you to take part in an interview about what this has been like for you.

This research will be useful in helping us understand a bit more about the writing that people do for us, especially in understanding what it is like for people to see their story on the website.

If you think you would be willing to take part, you can contact Sarah at pcp08sb@sheffield.ac.uk to find out a bit more before you make a decision. She will tell you about the research and answer any questions you might have. Sarah will not need to know your name if you do not want to give this.

If you go ahead, Sarah will ask you to complete some a brief questionnaire. She will ask you some questions about how you went about writing your story, what your hopes and expectations were when you decided to write and how you feel about it now. Once your story has been posted online, she will ask you some further questions about what this was like. The interviews will take place at a time that is convenient to you, and can be carried out via Skype, or telephone, depending on what you would prefer. Sarah will need to read your story and may also work with you to ensure your story is suitably anonymised, ready for it to be posted on the website. If you are interested in taking part, please e-mail Sarah at pcp08sb@sheffield.ac.uk as soon as possible.

Yours sincerely,

Appendix 3: Initial e-mail contact to potential participants

Dear _____,

Thank you for contacting me about taking part in my research project. I'd like to tell you a bit more about the project and answer any questions that you might have. This is probably best done over the phone or skype, although we could do it via e-mail if you'd prefer. If you're happy for me to ring you, please could you let me know your phone number and the best time (morning, afternoon, evening) and day for me to call.

Please also find attached a copy of the information sheet and an informed consent form for you to complete and return to me if you do decide to take part. I will also ask you to complete a questionnaire before you take part in the interview, if you decide to do so. We can talk about this when I speak to you.

I look forward to hearing from you,

Sarah Blainey

Appendix 4: Information sheet and informed consent form

Information sheet

Study: Exploring the process of writing about and sharing traumatic birth experiences online: an investigation of women's experiences

Researcher: Sarah Blainey, Trainee Clinical Psychologist, Clinical Psychology Unit, Department of Psychology, University of Sheffield, Western Bank, Sheffield, S10 2HP
Tel: 0114 2226570 E-mail: pcp08sb@sheffield.ac.uk

You are being invited to take part in a research study. Before you decide whether or not you wish to participate, it is important for you to read the following information and discuss it with others if you wish. Please ask me if you are unsure about anything, or would like more information before deciding to take part.

What is the purpose of the study?

To find out from women who have written about their traumatic birth experiences and submitted them the Birth Trauma Association (BTA) website what this experience is like for them. I am interested in finding out why people choose write about their birth experiences, how they go about it and what they think about the experience of writing once they have submitted their story and seen it online.

Who is taking part in the study?

Women who have experienced a birth as traumatic and recently submitted stories about their birth experience for the BTA website.

What will be involved if I decide to take part in the study?

The BTA will send me your story for me to read so I will know about your experience. I will arrange a time to carry out an interview with you which should take between 30 and 45 minutes. This will be at a time that is convenient to you. I can carry out the interview via e-mail, instant messaging, Skype or telephone, depending on what you would prefer. The interview will include questions about why you chose to write initially, how you went about the process of writing and how you feel about it now. You do not have to answer all of the questions if you do not want to. Once your writing has been posted on the website, I will arrange a time for another brief interview (shorter than the first interview) to ask about what it is like seeing your writing posted online.

Do I have to take part?

No. You can decide whether or not you want to take part. If you do decide to, then I can e-mail you a copy of this information, and the consent form. You can of course withdraw from the study at anytime without giving a reason.

Will my information be kept confidential?

All the information that we collect about you during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports or publications. You do not need to give me your name. Your e-mail address and/or phone number (if you decide you want to be contacted by phone) will not be used to identify you.

What are the benefits of taking part?

Although you will not gain anything directly from taking part in this study it will help the BTA to understand the experiences of women writing their stories and seeing these posted online. This may help them to shape their services to be as helpful as they can be to other women.

What are the possible disadvantages or risks of taking part?

I will be asking you about your writing, this may remind you of your traumatic birth experience which could be upsetting. Support and advice is available from the BTA if you need someone to speak to about how you feel.

What should I do if I need to complain about the study?

If you would like to comment or complain about any part of this research, you can contact the research supervisor, Professor Pauline Slade, on 0114 2226568. Alternatively you could write to her at Clinical Psychology Unit, Department of Psychology, University of Sheffield, Western Bank, Sheffield, S10 2HP.

What will happen to the research when it is finished?

I will be writing up the research to contribute to my Doctoral qualification in Clinical Psychology. I will share my anonymised findings with the BTA in order that they can share with other women what others have found helpful or less so about writing their stories online. I hope to publish the research in an academic journal, so that professionals who work with women during and after birth can gain a better understanding of writing about birth trauma. A brief summary of my findings will be available and I can forward you a copy of this if you are interested in reading it.

Thank you for reading this information

Informed Consent form:

Study: Exploring the process of writing about and sharing traumatic birth experiences online: an investigation of women's experiences

Researcher: Sarah Blainey, Trainee Clinical Psychologist, Clinical Psychology Unit, Department of Psychology, University of Sheffield, Western Bank, Sheffield, S10 2HP
Tel: 0114 2226570 E-mail: pcp08sb@sheffield.ac.uk

Participant Identification Number for this project: **Please tick to show you have read each box**

1. I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the project.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. If I wish to leave I can email Sarah Blainey (pcp08sb@sheffield.ac.uk) to do so
3. I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.
4. I agree for the data collected from me to be used in future research
5. I agree to take part in the above research project.

Date:

Appendix 5: Impact of Events Scale – Revised

IES-R

Impact of Event Scale – Revised

INSTRUCTIONS: Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you DURING THE PAST SEVEN DAYS with respect to your traumatic birth experience. How much were you distressed or bothered by these difficulties on a scale from 0 -4 where 0 = Not at all; 1 = A little bit; 2 = Moderately; 3 = Quite a bit; 4 = Extremely?

1. Any reminder brought back feelings about it.
2. I had trouble staying asleep.
3. Other things kept making me think about it.
4. I felt irritable and angry.
5. I avoided letting myself get upset when I thought about it or was reminded of it.
6. I thought about it when I didn't mean to.
7. I felt as if it hadn't happened or wasn't real..
8. I stayed away from reminders of it.
9. Pictures about it popped into my mind.
10. I was jumpy and easily startled.
11. I tried not to think about it.
12. I was aware that I still had a lot of feelings about it, but I didn't deal with them.
13. My feelings about it were kind of numb.
14. I found myself acting or feeling like I was back at that time.
15. I had trouble falling asleep.
16. I had waves of strong feelings about it.
17. I tried to remove it from my memory.

18. I had trouble concentrating.

19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.

20. I had dreams about it.

21. I felt watchful and on-guard.

22. I tried not to talk about it.

Appendix 6: Interview schedules and demographics form

Interview Schedule 1

Introduction/pre-amble:

My name is Sarah Blainey, and I am training to become a clinical psychologist. It is a requirement of my training that I complete a research project. I have invited you to take part in this interview because I am interested in the process of writing about difficult or traumatic experiences for sharing with other people online.

Before we start, I need to check that you have read and understand the information sheet that I e-mailed to you and that you agree to take part having read this.

(For skype/telephone interviews only) Although I will be recording this interview, it will only be heard by myself or a professional transcriber who will be asked to sign a confidentiality form. This means that they will promise not to discuss what they have heard with anyone. They will also not be told anything about you.

(For e-mail/instant message interviews only) Although I will save this interview, it will only be seen by myself and my supervisor, for the purpose of analysis.

(For all) The interviews themselves will be kept confidential, so other people won't hear them, but when I write up my report, I will use some quotes from your interview. I will present these so that it is not possible to identify you from your quotes. The interview will be done at your pace

You can withdraw from this study at any point without giving a reason.

Do you have any questions about the information I have just given you?

Ensure participant is ready to start.

To build rapport: I have read your story, and although we are not going to focus on that in this interview, we are going to focus on the experience of writing about it. To put it into context, would you like to briefly summarise your experiences before we start?

INTERVIEW SCHEDULE

Start tape recorder if appropriate

1. What led you to the BTA?
2. Tell me a bit about how you came to write your story?

- When did you first think about it?
 - Whose idea was it?
3. Why did you decide to write your story?
 4. What was your main aim in writing it?
 - Who were you writing it for?
 5. How did you go about writing your story?
 - Did you do it all at once or in stages?
 - Did you write drafts, or did you write the final version straight away?
 - Did you talk to anyone else about it before writing?
 6. What was it like for you doing the writing?
 - How did you feel during writing?
 - How did you feel immediately after you'd written your story?
 7. Were there things that it was really important for you to include or make clear in your story?
 8. Were there any things you were worried about or wanted to be careful about including in your story?
 9. In what ways, if any, has actually writing about your birth experience had any impact on you and your life?
 - Have you noticed any changes in thoughts, feelings or behaviour?
 - Has it impacted on any of your relationships with anyone else?
 10. When you were writing, did you think about other people reading your story?
 - Who did you think might read it?
 - Did thinking about other people reading make you change or edit your story in any way?
 - Did it affect how you felt about your story?
 - How did you think it would be for other people to read an anonymous version of your story?

Are there any things we haven't covered today that you want to add?

Debrief

How was that? Is there anything you'd like to add now that we've finished?

(Enquiries about distress will be made here, as appropriate, together with discussion of any issues of concern or confidentiality arising from the interview. Any further action will also be discussed here. Support from the BTA will be available should the participant feel they need someone to speak to).

I will be in touch about anonymising your story. Once we've done this, I'd like to ask you to take part in another brief interview. I will be in touch to arrange this once your story has been posted; how would it be best to contact you?

Complete demographics form.

Switch off tape recorder.

Follow up interview:

Introduction/pre-amble:

I have invited you to take part in this follow up interview because I am interested in the process of writing about difficult or traumatic experiences for sharing with other people online. This interview will focus on what you have thought about since your story has been posted online.

Do you have any questions about the information I have just given you or about any other aspect of this research project?

Ensure participant is ready to start.

INTERVIEW SCHEDULE:

1. Have you thought about your experience of writing since you wrote your story?
 - Have you looked back at your writing?
 - What do you make of the experience now?
2. What have you done with your story since you wrote it?
 - Have you looked for it on the website?
 - Have you read it yourself?
 - What was this like?
3. Have you told anybody you know about your story or shared it with them?
 - What was this like?
4. What was it like seeing it online?
5. What would you say to any others thinking about doing something like this?
6. What has the impact on you been, if any?

Are there any things we haven't covered today that you want to add?

(Enquiries about distress will be made here, as appropriate, together with discussion of any issues of concern or confidentiality arising from the interview. Any further action will also be discussed here. Support from the BTA will be available should the participant feel they need someone to speak to).

Thank you for taking part in this research.

Demographics form:

Demographics:

Age:

Ethnicity:

Nationality:

Marital status:

Family structure: Number of children you have given birth to:

During labour or birth were you fearful for your or your baby's life, or did you fear serious injury or permanent damage?

Length of time since traumatic birth:

What have you tried to help yourself since your traumatic birth experience? (This may include professional help, social support or something else)?

Are you currently receiving any mental health support or input? (including anti-depressants prescribed by GP or any other mental health support)

What support would you like to be available?

Appendix 7: Example coding of a transcript

Interview 8
Transcriber: Sarah Fox

99 ~~that's quite important what happened there and that it was err there~~
100 ~~were certainly certain points when I was typing away and putting it~~
101 ~~together and I was crying at the same time.~~
102
103 I Right so it sounds like it was err difficult?
104
105 P08 ~~Yes there were certain aspects of it because when I was writing it the~~
106 ~~one thing that I did get was a lot of flashbacks, and a lot of visual~~
107 ~~reminders of exactly what had happened.~~ Lots of flashbacks and visual
108 reminders of what happened when I wrote it
109 I Okay so you kind of, it almost sounds like you were almost back there?
110
111 P08 Uh huh. Yes
112
113 I So bringing it back, writing really brought it back in a very....
114
115
116 P08 ~~Very vividly brought it back.~~ Writing very vividly brought it
117 back
118 I And it sound like you did it in drafts?
119
120 P08 Yes
121
122 I So how, sort of how did you go about that, did you write, you said you
123 write the first draft at speed then did you go back and edit?
124
125 P08 ~~Yeah I wrote it erm because, because it went in the email I wrote it~~ I saved it and
126 ~~originally in the email and I hit the save button rather than send and I~~ waited 24 hour
127 ~~gave it twenty four hours before I went back and had another look at it~~ to go back and
128 ~~because I knew when I was writing it, that it wasn't right, it was missing~~ look at it and
129 ~~certain aspects because I didn't really want to think about them erm~~ write it again
130 ~~and I went back after that twenty four hour period and I went back and~~
I knew when I was writing it it
was missing certain aspects
because I didn't want to think
about them

Initial codes from interview 8

- Deciding to write my story
 - Writing for me more than anyone else
 - Deciding to write to help me get my own thoughts in gear
 - It was trying to sort my thoughts out to tell the BTA what had happened so they could help me
- Choosing to share my story
 - Thinking about other people reading it
 - Sending it to a general email helped because I didn't have to think about anyone actually reading it
 - Written for me, by me but sent to someone else so not like a diary entry
 - Putting it up is therapeutic for me because if it helps someone else out it means what I went through has a purpose
 - Thinking about other women who'd gone through something similar reading
 - I sat there for a while thinking whether I should send it off or not, but after I did there was a big relief
- The process of writing
 - Choosing what to put in
 - I wanted to get all the detail in it was important to put everything in
 - The story feels so negative but the staff were great
 - Some things were hard to write
 - I knew when I was writing it it was missing certain aspects because I didn't want to think about them
 - Wrote first draft really fast and realised when I read back I'd skipped over some things because I didn't want to dwell on them
 - I saved it and waited 24 hours to go back and look at it and write it again
 - Different versions of my story
 - Written it before for a friend via email that was the first time I went through it in detail
 - Writing for the BTA had a different emphasis
- Writing was emotional
 - Really emotional writing because I had to stop and think about it
 - Writing very vividly brought it back
 - Lots of flashbacks and visual reminders of what happened when I wrote it
 - Felt numb afterwards also a sense of relief "that's gone, I don't have to think about it anymore"

- The impact of writing
 - It's had a bigger impact than I thought it would have
 - It's a step towards moving on
 - It's not quite so intense now I've written about it
 - Before I wrote there was quite a lot of dwelling on it and that's lifted in some respects
 - Not thinking about it less but when it pops up letting it disappear rather than keep thinking about it
 - But writing is has moved me away from it being an obsession
 - you can become obsessed with other stories and it's not very healthy
 - It was really overwhelming and I had become obsessed with it before and writing it I started to feel a bit like that again
 - No impact on relationships
 - It showed me where I am now
 - Reading other stories and writing my story showed me I'm not ok
 - Looking at it in black and white as a complete story changes how you see it
 - Before it was in bits and pieces
 - It might have helped me if I'd done it before
 - I wonder if I'd have felt better if I'd have written my story earlier
 - I might have written my story earlier if I'd been able to feedback to the midwives
-
- Is it ok for me to feel this way?
 - I thought my story wasn't as bad as the others I'd read and so I didn't have a right to be upset
 - I had read so many stories and never come across any that were similar to mine
 - It took writing about it for me to understand that what I went through was horrific and make me see it's ok to feel this way - made me reevaluate it
 - By putting my story up I'm saying anything can be horrific even if you don't nearly die and it's ok to be upset about it