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Do Children and Adolescents Have Different Types of Trauma Narratives and Does it Matter? Reliability and Face Validation for a Narrative Taxonomy

Michael S. Scheeringa¹, Megan E. Lilly¹, Allison B. Staiger¹, Maren L. Heller¹, Edward G. Jones¹, and Carl F. Weems²

¹Tulane University School of Medicine, Department of Psychiatry and Behavioral Sciences, New Orleans, LA, USA

²Iowa State University, Department of Human Development and Family Studies, Ames, IA, USA

Abstract

The construction of trauma narratives is a major component of several psychotherapy approaches for trauma-related problems, but questions remain as to whether fully expressive narratives are necessary and whether it is detrimental to ask avoidant youths to tell their narratives repeatedly. Characteristics of trauma narratives during psychotherapy have not been examined in youths and this represents a salient gap in knowledge. This study aimed to begin filling this gap by identifying categories of trauma narratives and empirically validating them. Youths ($N = 47$) aged 7 to 18 years, who were involved in a randomized controlled trial, received cognitive behavioral therapy. Transcripts of all narrative exposure therapy sessions for each youth were rated. Four categories were identified and were named expressive, avoidant, fabricated, and undemonstrative. Interrater reliability for identifying these categories was good, and face validation of the categories was supported by statistically significant differences between categories on the number of data elements of the trauma events, negative emotion words, and positive emotion words. These promising findings indicate that different types of narrative styles can be reliably identified. There was strong evidence for reduction of posttraumatic stress symptoms in each of the categories (Cohen's $d = 0.9$ to 2.5). Favorable treatment outcomes for all categories suggest that more remembering is not always better and clients appeared to effectively deal with memories in different ways.

Clinical trials of cognitive behavior therapy (CBT) for posttraumatic stress disorder (PTSD) have demonstrated repeatedly the effectiveness of this psychotherapy (Gillies, Maiocchi, Bhandari, Taylor, Gray, & O'Brien, 2016), but at least two key questions remain. One question is whether constructing fully expressive narratives is critical to the effectiveness of the technique. Emotional catharsis and exposition of detail about traumatic events have been considered ideal elements of trauma-focused therapy (Foa, Molnar, & Cashman, 1995;

Correspondence concerning this article should be addressed to: Michael Scheeringa, Department of Psychiatry and Behavioral Sciences, Tulane University School of Medicine, 1440 Canal St., MS 8448, New Orleans, LA 70112, 504-988-2167. mscheer@tulane.edu.

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Zoellner, Fitzgibbons, & Foa, 2001), but there exists no consensus on the qualities, valence, or intensity of narratives that produce change. The reported effectiveness of briefer protocols (Berkowitz, Stover, & Marans, 2010) and techniques with less emphasis on expressive narratives (Gillies et al., 2016) leave open the question of how detailed narratives need to be.

A second question is whether it is detrimental to ask youths who are avoidant or reluctant to narrate their traumas again and again. Concern has been expressed that this may make them worse and may lead therapists to be reluctant to use CBT (Becker-Blease & Freyd, 2007). This has added relevance as it is evident that dissemination of evidence-based practices such as CBT continues to meet with substantial resistance among community clinicians (McLean & Foa, 2013).

An initial step to answer these questions is to demonstrate that distinct types of narratives exist and can be reliably identified. Only two prior studies related components of narratives to treatment outcome, both involving adults. Foa et al. (1995) studied 14 female sexual assault victims who received CBT for PTSD. As fragmentation (conceptualized as repetitions, unfinished thoughts and speech fillers) decreased from pre- to post-treatment so did anxiety symptoms (Foa et al., 1995). Better organized thoughts however did not correlate with treatment improvement. Van Minnen et al. studied (2002) 20 adults (65.0% female) with PTSD from a variety of traumatic events who received prolonged imaginal exposure therapy. Better outcome (decreased PTSD severity) was associated with decreases in disorganized thoughts, conceptualized as confusion or disjointed thinking (van Minnen, Wessel, Dijkstra, & Roelofs, 2002). There were no associations between PTSD outcome and fragmentation, organization, or utterances about internal or external events.

The previous studies quantified levels of specified narrative content (e.g., organized thoughts) separate from other narrative content variables, which limits a holistic picture of the narrative. Using a qualitative taxonomic approach (Taylor & Weems, 2009) allows many salient factors to be evaluated in a comprehensive gestalt. The potential advantages of a taxonomy strategy in which the organized whole is more than the sum of its parts include the ability to combine factors that interact in complex ways without a single factor being pathognomonic. This represents a more applied understanding of how therapists practice and interact with clients. Also, classifying narratives is something that therapists can do in their clinical practice without linguistic analysis software or extensive training.

The question of the present study was whether children and adolescents involved in CBT for PTSD produce distinct types of trauma narratives. Narratives would be assessed longitudinally in actual psychotherapy sessions. Assuming that distinct types of narratives could be reliably identified, additional analyses would investigate whether treatment outcome differed by narrative category.

Method

Participants

The participants, aged 7 to 18 years, were recruited for a triple-blind, placebo-controlled, randomized trial of CBT with adjunctive D-cycloserine (CBT + DCS) versus CBT with

placebo (CBT + placebo) (Scheeringa & Weems, 2014). The youths suffered a wide variety of traumatic events. For this brief report, readers are referred to the main results publication for details on recruitment, inclusion criteria, and demographics (Scheeringa & Weems, 2014). Of the 98 youths who passed the inclusion and exclusion criteria and were offered treatment, the 47 who completed treatment were the subjects of the current analysis. For these 47 individuals, the mean age was 12.02 years ($SD = 2.96$), and 51.1% were female.

Procedure

The Tulane University (New Orleans, LA, USA) Committee on the Use of Human Subjects approved this study. The study was registered in [ClinicalTrials.gov](https://clinicaltrials.gov) (NCT01157416 & NCT01157429). Written informed consent and assent were obtained from the caregivers and youths, respectively. All therapy sessions were videotaped. The narratives were transcribed verbatim.

Phase 1: Consensus creation of narrative categories—Two nonmasked raters - a therapist for 61.7% of the clients and a research assistant who helped to conduct assessments with all of the clients - reviewed the narrative recall transcripts, together, from sessions 5 through 10 to determine the presence of categories. A therapist and a research assistant were paired on purpose to incorporate the unique perspectives of both; it was expected that a research assistant would be more sensitive to rigor that would provide replicability and operationalization of definitions for the categories, and a therapist would be more sensitive to combining the various factors into a gestalt for categories that made sense for clinical work. The two raters were given guidance to look for narratives to be coherent and to include emotional engagement with the memories (Foa et al., 1995; Zoellner et al., 2001), the number of data elements of traumatic events (Foa et al., 1995), negative or positive emotion words (Sales, Fivush, Parker, & Bahrnick, 2005), distortions (Foa et al., 1995), and willingness to expand their recall of these factors as therapy progressed (Foa et al., 1995; van Minnen et al., 2002).

Phase 2: Reliability and validity procedures—Two new research assistants who had no involvement with the subjects were trained by the first author in the taxonomy created in Phase 1. First, the criteria (Table 1) were reviewed. Second, they jointly reviewed the narrative transcripts from four cases that represented the four categories but were not part of the current study. Third, they independently reviewed transcripts of four additional cases that were not part of the current study; their ratings were then jointly discussed. It was decided a priori to train the raters with a minimal amount of practice to simulate how community therapists would learn the criteria.

After this training period, the two new raters independently rated all 47 cases, reading sessions 5 through 10.

Lastly, a rater who was not one of the Phase 2 raters independently read every transcript and counted the numbers of data elements and emotion words.

Measures

Data elements—We defined a data element of a trauma narrative as the smallest piece of information about a traumatic event. For example, a “red car” is two data elements of unique information for “red” and “car.” Yes and no responses to questions were not counted. Data elements were counted separately for each therapy session.

Negative and Positive Emotion Words—Following Sales et al. (2005), negative (e.g., fear, worry, anger, or sadness) and positive (e.g., happy, glad, excited, or proud) emotion words were counted for each session. Crying in the session was counted as a negative if no negative word was concurrently verbalized.

Child PTSD Symptom Scale (CPSS)—The CPSS is a self-administered measure that maps onto the 17 DSM-IV (American Psychiatric Association, 1994) symptoms rated on 4-point (0–3) Likert-type scales (Foa, Johnson, Feeny, & Treadwell, 2001). This measure was administered pre- and post-treatment by both youths and caregivers. One posttreatment CPSS was missing from a caregiver.

Treatment—Participants received Youth PTSD Treatment (YPT), which was created for the trial (Scheeringa & Weems, 2014). This treatment is a 12-session manualized protocol (available upon request) that includes traditional components of CBT for childhood trauma: psychoeducation, affect identification, relaxation, cognitive coping, trauma narrative processing, and graded exposure. Clients recounted their traumas in sessions 5 through 10 and were encouraged to recall events that were progressively more anxiety-provoking as sessions progressed. Treatment was delivered by two Masters-level therapists trained and supervised by the principal investigator (M.S.) and co-investigator (C.W.). Two independent raters viewed 27.4% of the sessions on videotape and, using fidelity checklists, found the therapists to have 90.6% fidelity.

Results

Creation of Narrative Categories

The two Phase I raters read all 47 cases and jointly created the categories, which were called expressive, avoidant, undemonstrative, and fabricated. The expressive group included all of the attributes that might be considered the “ideal” narrative – details about the trauma events, expressions of emotion during the retelling, and increased expressions of details with subsequent retellings. Details of each group are in Table 1.

Face Validation with Associated Measures

Baseline characteristics—The four groups did not differ on the child’s age or race, father’s age, mother’s or father’s level of education, whether or not the father lived with the children, number of types of trauma events by either child or parent reports, type of trauma, whether they were adjunctively treated with DCS or placebo, or severity of pretreatment PTSD symptoms. Means and percentages of demographics are omitted for this brief report (except for age and sex) but are available from the author. By chance, a number of youth in the fabricated and undemonstrative groups were cared for by grandparents, so their maternal

caregivers were significantly older than the other groups (Wilcoxon rank sum tests, p s = .014 to .045).

Data elements—The participants in the expressive group recounted significantly more data elements about their trauma events compared with participants in the avoidant group, Kruskal-Wallis (KW) test, $\chi^2(1) = 14.88$, $p < .001$; fabricated: KW $\chi^2(1) = 4.05$, $p = .044$; and undemonstrative: KW $\chi^2(1) = 8.65$, $p < .005$. Participants in the avoidant group recounted significantly fewer data elements about their trauma events compared with those in the expressive group (above), fabricated: KW $\chi^2(1) = 7.37$, $p = .007$; and undemonstrative: KW $\chi^2(1) = 5.55$, $p = .019$. There was no significant difference between fabricated and undemonstrative.

Negative emotion words—Participants in the expressive group stated significantly more negative emotion words compared to those in the avoidant group, KW $\chi^2(1) = 5.11$, $p = .024$; fabricated: KW $\chi^2(1) = 5.80$, $p = .016$; undemonstrative groups: KW $\chi^2(1) = 7.17$, $p = .007$. There were no significant differences between the avoidant versus fabricated, avoidant versus undemonstrative, or fabricated versus undemonstrative groups.

Positive emotion words—Participants in the expressive group stated significantly more positive emotion words compared to those in the avoidant group, KW $\chi^2(1) = 10.37$, $p < .005$, but the expressive group was not significantly different compared with the fabricated or undemonstrative groups. Participants in the avoidant group stated significantly fewer positive emotion words compared with those in the fabricated group, KW $\chi^2(1) = 5.51$, $p = .019$, and undemonstrative group, KW $\chi^2(1) = 5.12$, $p = .024$. The fabricated and undemonstrative groups did not differ from each other.

Reliability between masked, independent raters—The agreement between the two new Phase II raters on classification into the four groups was very good. The raters agreed 89.4% of the time (Cohen's $\kappa = .81$).

Change in CPSS severity during treatment—In a repeated measures mixed models analysis test, using parent report CPSS scores as the outcome, the effect of time was significant, $F(2, 44) = 81.36$, $p < .001$; the effect of group was not significant, and the group $\times$ time interaction was not significant ($p = .054$). The Cohen's d effect sizes for the groups ranged from 0.9 to 2.5 (Table 2). Effect sizes of $d = 0.7$ or greater are generally considered large.

When the “ideal” expressive group was compared with the other three groups (avoidant, fabricated, and undemonstrative) combined, the mixed models test of the group $\times$ time interaction was significant, $F(1, 46) = 7.64$, $p = .008$. The direction of change was that the three non-expressive groups combined appeared to improve relatively more than the expressive group, contrary to expectations.

Using the child report, time was significant, $F(2, 44) = 59.88$, $p < .001$, whereas group was not significant and the group $\times$ time interaction term was not significant. When

the expressive group was compared with the other three groups combined, the interaction term was not significant.

Discussion

Although caution about drawing conclusions due to the small sample size and preliminary nature of this study is warranted, this brief report makes three novel contributions to our understanding of psychotherapy for youths with PTSD. First, the data suggested that the documented reluctance that therapists have to ask youths to recount traumatic experiences, stemming from therapists' fears that this may make them worse (Becker-Blease & Freyd, 2007), may be unfounded. Evidence-based treatments for PTSD are structured interventions that are relatively more therapist-directed than other psychotherapies, and reluctance on the part of therapists to be directive can be counterproductive. The current findings demonstrated that youth with avoidant and undemonstrative features both tolerated and benefitted from structured and directive therapy techniques.

Second, cognitive models of PTSD have posited that disturbances of autobiographical memory are maladaptive (Ehlers & Clark, 2000), and that organized narratives free of distortions is an element of effective psychotherapy (Zoellner et al., 2001). In contrast, these data suggest that distortions, at least the type of fabrications seen in the fabricated group, do not need to be explicitly acknowledged for therapy to be successful. This may represent developmental differences however in the quality of distortions as all of the previous investigations about distortions have focused on adults.

Third, although emotional catharsis has traditionally been viewed as an ideal element of trauma psychotherapy (i.e., the expressive group), these data suggest other viable, individualized paths to good outcomes. It appears that clients need not fit one supposed archetypal way of recalling traumatic memories. Although these findings suggest that traditional ideas about expressive narratives may not be accurate, there is much we still do not know about avoidant and undemonstrative narrative types. It is hoped that this type of therapist-friendly measure of trauma narrative recall will enhance psychotherapy approaches in both clinical practice and research.

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Table 1

Narrative Categories

Category	Description
Expressive	<ul style="list-style-type: none"> • Adequate detail. Recall of their traumatic event(s) with reasonable detail (remembering that most people would not want to voluntarily talk about traumatic events). • Spontaneous. Not overly avoidant or reluctant to talk about it. • Admitted emotions. Able to talk about some distressing emotions related to the trauma(s). • Expanded recall with time. As treatment progressed (through sessions 5 to 10), additional details about the trauma(s) emerged.
Avoidant	<ul style="list-style-type: none"> • Limited detail. Avoided giving details about their traumatic event(s). • Usually able to make some emotional connections to events. • Did not expand recall with time. No, or few, details of the event(s) were added as treatment progressed (through sessions 5 to 10).
Undemonstrative	<ul style="list-style-type: none"> • Does not admit to feelings. Rarely, if ever, talked about distressing feelings. • Usually able to add some new details in later sessions.
Fabricated	<ul style="list-style-type: none"> • Fabrications. Events related to their traumas are embellished. This does not apply to small errors in recall. Events are made up that never happened within the larger context of traumatic events that did actually happen. • This should be apparent in more than one session, but may include as few as several statements from all sessions combined. • The falseness of fabricated events had been confirmed by the therapists fact checking with the parents during the CBT therapy. If raters had questions about whether events were fabricated or not they were allowed to check with the first author (M.S.).

Note. Scoring guidelines with full detail available from the first author.

Table 2

Change in Posttraumatic Stress Symptom Severity, by Narrative Category

Outcome	Group	Pretreatment		Posttreatment		Effect Size (Cohen's <i>d</i>)
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
CPSS-P ^a	Expressive	19.8	11.1	10.7	10.0	0.9
	Avoidant	20.6	14.2	1.3	1.1	2.5
	Fabricated	27.7	10.5	10.5	12.3	1.5
	Undemonstrative	19.6	8.0	5.4	6.8	1.9
CPSS-C ^b	Expressive	20.9	11.8	9.4	11.4	1.0
	Avoidant	13.0	17.0	5.0	4.9	0.7
	Fabricated	23.7	10.5	7.2	7.6	1.8
	Undemonstrative	16.6	9.3	3.6	3.0	2.1

Note. CPSS-C = Child PTSD Symptom Scale (child version); CPSS-P = Child PTSD Symptom Scale (parent version).

^aExpressive vs. other three groups combined, group $\times$ time interaction, $p = .008$.

^bExpressive vs. other three groups combined, group $\times$ time interaction, $p = 0.873$.