Narrative exposure therapy: A short-term intervention for traumatic stress disorders after war, terror, or torture

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Narrative Exposure Therapy

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Abstract

Narrative Exposure Therapy (NET; Schauer, Neuner, Elbert 2005/2011) is an evidence-based treatment for trauma spectrum disorders in adult and child survivors of multiple stressors with complex trauma histories. NET was originally developed to treat survivors of war, terror, torture, and abuse. Since oral narratives are an integral part of every human culture worldwide, and imaginal exposure is proven to be a first-line treatment in trauma spectrum disorders, NET ensures healing of trauma symptoms through these components. The testimony approach that is inherent in this treatment enables the survivors to reclaim their life stories and also assists societal repair. Based on these principles, it has been shown that individuals from diverse backgrounds with a high trauma load and broken lifelines, suffering from traumatic stress, significantly benefit from NET. Working through an individual's biography facilitates recognition of the interrelated emotional networks of experiences in cases of multiple, repeated, or continuous trauma and hardship. This helps to build episodic memory and contextual indexing, fosters a sense of identity, and gives deep personal understanding of schemas and social emotions that have evolved across the lifespan. Revisiting and processing socially painful situations whilst supported by active, empathic listening allows for a corrective and healing relationship experience and integration. Subsequently disturbing symptoms significantly decline and the overall health and immune functions as well as social and occupational functionality increase. In Narrative Exposure work survivors can find meaning, testify to human rights violations, regain dignity, and satisfy the need for acknowledgment and validation.

Theoretical Underpinnings for Narrative Exposure Therapy

As humanitarians, we aim at alleviating the plight of war and complex emergencies, of natural and manmade disasters, assisting human beings who experience human-/child-rights violations, abuse, and continuous trauma. When one stressful experience after another adds to the growing associative memory of fear and trauma, the feeling of threat becomes a permanent plight. Given the high prevalence of emotional neglect, and familial, sexual, and organized violence that is not limited to geographic regions shaken by war and crisis but can be found in all countries of the world, low-threshold trauma treatments are needed to overcome these 'building blocks' of traumatic events and allow remembrance. In search for straightforward, disseminable approaches that are not linked to formal education, culture, or age, field-based studies have shown the efficacy of this short-term, evidence-based trauma treatment method, Narrative Exposure Therapy (NET), which can be successfully implemented on a large-scale level and applied by locally trained lay counselors (Schauer et al., 2011; Jacob et al., 2014; Neuner et al., 2004b; Schauer and Schauer, 2010). To heal individuals and communities it is essential to conduct and evaluate trauma treatments in real-world settings and to respond to universal human psychosocial needs (Nickerson et al., 2011; Robjant and Fazel, 2010).

Typically, the construction of an individual's reality involves a dimension of historicization and localization in the continuum of past, present, and future (Schauer and Ruf-Leuschner, 2014). Survivors of trauma, however, often encounter difficulty detailing a biographical account consistent in both content and sequence (Elbert and Schauer, 2002; Ehlers and Clark, 2000). In severe and complex cases, entire lifetime periods can seemingly be lost. Traumatized people fail to sufficiently connect their impulses, bodily sensations, and experiences to the contexts of their biography (Schauer et al., 2005/2011). Individuals who suffer from chronic trauma spectrum disorders have typically been exposed to multiple traumatic stressors such as assaults and persecution in their community or repeated incidences of familial violence including abuse, neglect, and social rejection. Effects are most devastating when the child had to endure repetitive and prolonged stress during development (Elbert and Schauer, 2014; Ruf and Schauer, 2012; Teicher et al., 2006).

As a consequence of their trauma memory, survivors suffer from a range of painful symptoms, leading to severe problems in daily functioning and participation in social life. Symptom remission and achieving functionality requires traumatic experiences to be oriented in the appropriate context, particularly the time and place, in the autobiography, i.e., trauma-focused remembering. Forcing a survivor to simultaneously recall, rank, and prioritize some traumatic events over others in order to participate in an 'exposure exercise' is often not only technically impossible but can even hinge on unethical. The process of having an individual select the 'worst' traumatic event from their trauma history oversimplifies the intricate context surrounding each event and neglects to address developmental influences. However, a viable treatment option that circumvents such complications and is both efficient and effective involves the narrating of the *entire* life story in a manageable period of time. The steady, step-by-step working through an individual's biography facilitates the recognition of interrelated emotional networks of experiences. The aim of NET is to complete the survivor's autobiography by linking *hot* (sensory–bodily–emotional) and *cold* (episodic) memory traces of events, thus contextualizing the experience of major traumata. Narrative Exposure builds on the theory of the dual representation of traumatic memories (Brewin et al., 2010; Elbert and Schauer, 2002; Schauer et al., 2011).

During a traumatic event, mainly sensory and perceptual information is stored in memory. The mind and body become

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extremely aroused (rapid heartbeat, sweating, trembling) and brace for actions such as opposing or escaping. Emotional memories are tied together in a network of sensory, cognitive, emotional, and physiological elements. The sensory elements, together with the related cognitive, emotional, and physiological responses, then form associations in memory related to the traumatic experiences (*hot memory*; Metcalfe and Jacobs, 1996; *situationally accessible memory, or sensory perceptual representation*, see Brewin et al., 2010; Schauer et al., 2011). These hot memories are disconnected from the contextual information that constitutes the *cold memory* (*verbally accessible memory*, or *contextual representation*), i.e., the individual cannot remember the event within their contexts, i.e., where and when they have happened. Environmental stimuli and internal cues can easily activate the trauma structure. Multiple trauma is conceptualized as an extension of the fear/trauma network through experience of multiple traumatic events in such a manner that the fear network becomes increasingly strengthened and enlarged and ultimately can be triggered by exposure to a wide range of cues contained associated with the network.

Since the activation of the fear/trauma network serves as a frightening and painful recollection, many patients learn to avoid cues that act as reminders of the traumatic event and are unable to orient the specific fear associated with the events appropriately in time and space or to clearly structure these traumatic events in chronological order (Schauer et al., 2011). Trauma networks connect to response dispositions, which can either be an alarm response with fight and flight behavior or dissociative responding (fright, flag, and faint: e.g., functional sensory de-afferentation, emotional detachment, and numbing while tonic or flaccid immobile). Thus, dissociative amnesia or 'shut-down' can occur, replacing intrusions and hyperarousal with dissociation and passive avoidance (for a more detailed understanding of the biology of surviving and the defense cascade see Schauer and Elbert, 2010). NET is thought to reverse these detrimental conditions by tying down connections to their exact context.

As adversities and stressors cumulate, the trauma network expands, ultimately leading to clinically significant trauma-related suffering. There is a dose–response relationship ('building block') between experiences of traumatic events and trauma spectrum disorders. All symptoms of traumatic stress disorders and depression have repeatedly been shown to correlate in their severity with the cumulative exposure to traumatic stress (Mollica et al., 1998; Schauer et al., 2003; Neuner et al., 2004a; Elbert et al., 2009; Schauer E. and Elbert, 2010). More recently, it has become obvious that childhood adversity is the other major dimension in predicting trauma-related mental illness (Catani et al., 2009, Neuner et al., 2006; Teicher et al., 2003).

We all carry numerous implicit associative neural networks that have formed in response to emotionally arousing experiences, with many never reaching conscious awareness. Therein, mutually excitatory mnemonic representations are interconnected with action dispositions (emotions) and behavioral and physiological responses. Salient discrimination between past and present, between what are memories and what are current sensations, is essential. A well-tolerable way to attain this is working through both the negative and the positive life events chronologically, furnishing a narration about the entire biography. Reorganizing the memory and embedding the traumatic events in one's stream of life, in their appropriate positions on an individual's biographical timeline can achieve acknowledgment and closure of painful experiences. Revisiting positive, resourceful moments and taking the time to explicitly examine them one by one helps empower the individual to be able to look forward to the future (for both see Schauer et al., 2011).

In NET, the individual, with the assistance of the therapist, constructs a chronological narrative of his or her life story with a focus on the traumatic experiences. Fragmented reports of the traumatic experiences will be transformed into a coherent narrative. Empathic understanding, active listening, congruency, unconditional positive regard, and directive perseverance are key components of the therapist's approach for individuals under continuous trauma conditions, after familial, sexual, and organized violence, emotional neglect, or social relational victimization. For traumatic stress experiences the therapist asks in detail for context, emotions, cognitions, sensory information, physiological responses, and probes for respective observations. The narrator is encouraged to relive these emotions while actively maintaining their connection to the 'here and now': using permanent reminders that the feelings and physiological responses result from memories, the therapist links the experiences to episodic facts, i.e., time and place. In this way reprocessing, meaning making, and integration are facilitated. At the end of treatment the documented autobiography may be used for human rights advocacy.

The therapeutic procedure of NET (see **Figure 1**; *for a detailed account of the structure of NET, see the* treatment manual by Schauer *et al.*, (2011); for a clinicians short description see Elbert et al., 2015)

- Part 1 (duration: 1–2 sessions, each about 90–120 min): Structured clinical interview of trauma spectrum disorders including event checklists followed by a brief psychoeducational introduction (trauma memory, symptoms, outline of the treatment rationale and plan, approximate number of sessions)
- Part 2 is optional (duration: 1 session, 90–120 min): Laying out the *Lifeline* as a biographical overview
- Part 3 (duration: about 4–12 sessions, each 90–120 min): *Narrative Exposure* as the core procedure of NET, narrating the life story in several treatment sessions along the chronology of the timeline with an emphasis on high arousing moments, focusing on the reprocessing of traumatic experiences by inviting 'imaginal exposure'.

The Character of NET

To heal individuals and communities NET was tested in ecologically valid, various real-world settings, i.e., in scenarios of conflict and crisis as well as in typical inpatient and outpatient clinical settings (Schauer et al., 2004; Onyut et al., 2004, 2005; Neuner et al., 2004b, 2008a; Bichescu et al., 2007; Maedl et al., 2010; Neuner et al., 2011; Crombach and Elbert, 2014; Pabst et al., 2015; Hensel-Dittmann et al., 2011; Robjant and Fazel, 2010). NET was found to be a robust, low-threshold approach that is not linked to formal education, culture, or age. Field-based studies have shown the disseminability and

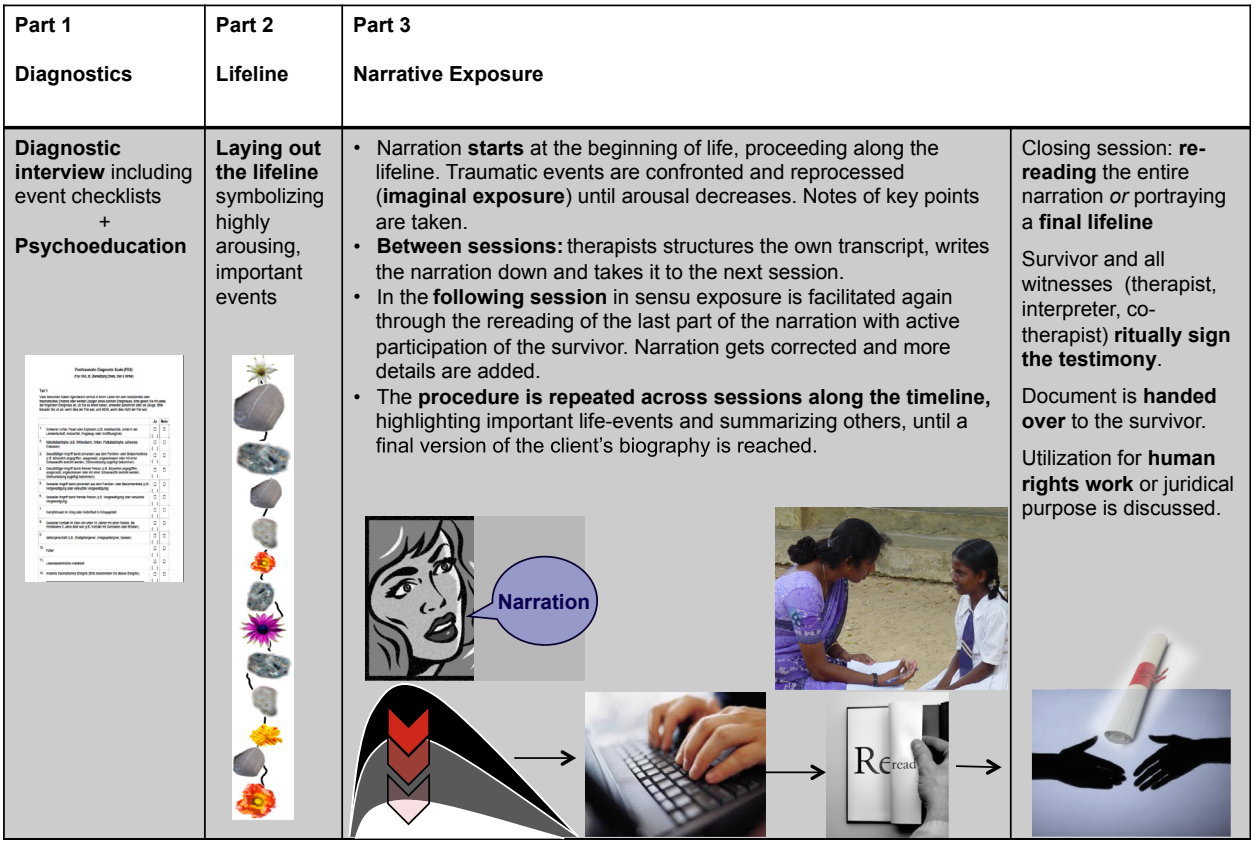

Figure 1 The Narrative Exposure process (Schauer, M., Neuner, F., Elbert T., 2011. Narrative Exposure Therapy: A Short Term Treatment for Traumatic Stress Disorders, second ed. Hogrefe Publishing, Cambridge, MA.).

efficacy of this short-term, trauma-focused treatment module that can be successfully built into large-scale service provision and applied by, e.g., trained counselors, psychologists and psychiatrists, medics, paramedics, social workers, and teachers (Schauer, E. 2008; Neuner et al., 2008b; Jacob et al., 2014). Because narratives are an integral part of every culture, people from diverse backgrounds with broken lifelines suffering from stress caused by events such as, e.g., sexual and physical childhood abuse, forced recruitment or migration, political violence and torture, life-threatening illnesses, disasters, or victimization by peers and attachment figures can benefit from the building of episodic memory and the facilitation of their testimony. NET has a therapeutic and human rights focus.

Therapeutic elements of NET that have proven effective in trauma treatment (from Schauer et al., 2005/2011)

1. Active chronological reconstruction of the autobiographical/episodic memory.
2. Imaginal exposure to the traumatic events ('hot spots') and full activation of the fear memory in order to modify the emotional network through detailed narration and imagination of the traumatic events.
3. Meaningful linkage and integration of physiological, sensory, cognitive, and emotional responses to one's time, space, and life context (i.e., comprehension of the original context of acquisition and the reemergence of the conditioned responses in later life).
4. Cognitive reevaluation of behavior and patterns (i.e., cognitive distortions, automatic thoughts, beliefs, responses), as well as reinterpretation of the meaning – content through reprocessing of negative, fearful, and traumatic events – completion and closure.
5. Revisiting of positive life-experiences to activate resources and to adjust basic assumptions.
6. Regaining of the survivor's dignity through satisfaction of the need for acknowledgment through the explicit human rights orientation of 'testifying.'

For full information about the NET procedure, see the treatment manual:

Schauer, M., Neuner, F., Elbert, T., 2011. Narrative Exposure Therapy: A Short-Term Treatment For Traumatic Stress Disorders, second ed. Hogrefe Publishing, Cambridge, MA.

In addition to the English edition, there is currently a Japanese, French, Korean, Slovak, and Italian version of the treatment manual as well as a Dutch interpretation (see references).

Evidence for NET

Adult and child survivors with multiple traumatizing life-events have been demonstrated to benefit from NET. State-of-the-art *in sensu* exposure and the narrative reprocessing of the trauma memory, the broken lifeline, and ultimately the entire biography effectively reduces suffering and allows the survivor

to foster personal identity (Jongedijk, 2014; Robjant and Fazel, 2010; Dömen et al., 2012). Individuals from diverse backgrounds with lives torn apart by stressful events like childhood abuse and neglect, loss of caregivers, adoption, forced recruitment or migration, political violence and torture, life-threatening illnesses, severe disasters, and many more show significantly reduced clinical symptomatology and an enhanced quality of life and level of occupational and social functioning (Mørkved et al., 2014; Hermenau et al., 2013; Dyregrov and Yule, 2006). NET therefore also provides effective treatment for survivors of organized violence and severe torture experiences with large effect sizes (Hensel-Dittmann et al., 2011; Neuner et al., 2010) or complex trauma survivors, including those with borderline personality disorders (Pabst et al., 2012a,b, in press). Stenmark et al. (2013) showed that with NET, refugees as well as asylum seekers can be successfully treated for post-traumatic stress disorder (PTSD) and depression in a general psychiatric health-care system. Most pronounced improvements are observed at (long-time) follow-up, suggesting that NET elicits an ongoing change in the dynamics of self-perception and self-regulation of the client, commencing a healing process that eventually leads to a sustained improvement in psychopathological symptoms, physical health, functioning, and quality of life. NET has effectively been applied in situations that remain volatile and insecure, like conditions of continuous trauma, i.e., ongoing real threat, e.g., by war or by a perpetrator (Neuner et al., 2014). It effectively reduces PTSD symptoms in the individual whilst bearing witness to the atrocities endured. Reviews identified NET as an evidence-based treatment for different groups of survivors of violence (Robjant and Fazel, 2010; Crumlish and O'Rourke, 2010; McPherson, 2012; Nickerson et al., 2011). Meanwhile, a number of studies showing the effectiveness of NET have been conducted completely independent from the originators of NET (Zang et al., 2013; Hijazi, 2012; Hijazi et al., 2014; Gwozdziewycz and Mehl-Madrona, 2013; Ejiri et al., 2012; Dōmen et al., 2012) and thus the NET procedure has been successfully implemented in a variety of countries (e.g., Zech and Vandenbussche, 2010; Jongedijk, 2012, 2014). NET is available in special adaptations for offenders (FORNET; Elbert et al., 2012; Hermenau et al., 2013; Crombach and Elbert, 2014) and for children and adolescents (KIDNET; Schauer et al., 2005, 2004/2011; Onyut et al., 2005; Catani et al., 2009; Ruf et al., 2010; Hermenau et al., 2012; Neuner et al., 2008a; Ruf and Schauer, 2012).

The effectiveness of NET has been demonstrated not only by measuring the clinical and social symptoms but also in validating these results by means of markers from neurophysiology and molecular biology. NET as a successful psychotherapeutic intervention can reorganize the memory and modify the architecture of the brain on a macroscopic level (Schauer et al., 2007, 2006). The success not only showed up in symptom scores but also in parameters of neuromagnetic activity. During the 6-month follow-up oscillatory brain activity in the NET group, but not in the control group, became more similar to that of healthy controls. Moreover, using magnetic source imaging of the brain, Adenauer et al. (2011) observed that NET causes enhanced cortical top-down regulation, which is associated with the ability to inhibit the fear response.

Various somatic diseases, including chronic pain, cancer, cardiovascular, respiratory, gastrointestinal, and autoimmune diseases (Boscarino, 2004; Seng et al., 2006; Felitti et al., 1998), emerge from traumatizing experiences. Altered immune functions and inflammatory processes are found to be responsible for the poor physical health in individuals with PTSD (Pace and Heim, 2011). NET was shown to turn health parameters (like frequencies of cough, diarrhea, and fever) for the better even under harsh living conditions (Neuner et al., 2008b). In the immune system, T-cells are critical for maintaining balance, regulating the immune response, and preventing autoimmune diseases. Recently, Morath et al. (2014) showed a treatment-related increase in the previously decreased proportion of regulatory T-cells in the NET group at 1-year follow-up. Moreover, NET is able to reverse in individuals with PTSD the pathological levels of DNA strand breaks back to a normal level (Morath et al., 2014b). These findings may have implications for physical health, including carcinogenesis.

A decisive strength of NET is its encouragingly low drop-out rate and, due to its robust nature, the potential for dissemination, including to counselors in low-income countries, war, and crisis regions (Schauer and Schauer, 2010; Catani et al., 2009; Neuner et al., 2008b; Ertl et al., 2011; Jacob et al., 2014).

See also: Mass Trauma: Psychopathological Effects across the Life Span; Post-Traumatic Stress Disorder; Post-Traumatic Stress in Social Work; Torture and its Consequences, Psychology of.

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