Narrative Exposure Therapy in Children: a Case Study[1]

Elisabeth Schauer, Frank Neuner, Thomas Elbert, Verena Ertl, Lamaro P. Onyut, Michael Odenwald & Maggie Schauer

In this article a form of psychotherapy for traumatised children and adolescents (KIDNET) is described. This approach is based on Narrative Exposure Therapy (NET), a short-term treatment method for traumatised adults. The description of KIDNET is illustrated with a detailed report of the successful treatment of a severely traumatised 13-year old refugee child.

Keywords: child, adolescent, cognitive behavioural therapy, Narrative Exposure Therapy, NET, PTSD, refugees organised violence, war, Somalia.

PTSD Treatment for children

In recent years, a number of investigations from various war zones all over the world have reported moderate to severe rates of Post-traumatic Stress Disorder (PTSD) in children exposed to acts of organised violence and war.[2] Factors such as frequent headaches, sleep disturbance, altered memory function, loss of ability to concentrate and pay attention, decline in school performance, loss of trust and social withdrawal impacted strongly on those children diagnosed with PTSD, limiting their chances for future healthy development.[3]

Heightened stress in childhood accelerates many forms of mental and physical illness. Besides PTSD, the psychological consequences of traumatic events can lead individuals into social isolation, hostility, depression and substance abuse, and can foster somatisation (Teicher et al., 2002).

It remains a challenge for aid organisations active in the field of mental health provision, to develop appropriate interventions and guidelines for the treatment of traumatic stress in child survivors of organised violence and war. Research in industrialised countries shows that children and adolescents with PTSD can be effectively treated with trauma-focused cognitive behavioural therapy (CBT). Randomised controlled trials that included children and adolescents in the age range between 3 and 17 years have shown that CBT is superior to non-directive supportive therapy and waiting-list conditions (Pine & Cohen, 2002). In these trials, CBT procedures usually consisted of a combination of cognitive, anxiety-management and exposure techniques. Child-friendly exposure techniques usually involved narrative procedures, like helping the child to write an account of the traumatic event over the course of several sessions. Comparison studies have shown that the inclusion of parents in treatment does not seem to have large additional effect.

The findings from treatment studies in

industrial countries cannot easily be transferred to children in war regions or refugee children. First of all, most randomised trials have been carried out with children who have experienced sexual or physical abuse. One exception is a study that included children from a poor Latino minority area in Los Angeles who were victims of multiple violations (Stein et al., 2003). In addition, Goenjian et al. (1997) carried out a non-randomised controlled study with early adolescent survivors of the 1988 Armenia earthquake. Although the children in both studies can probably not be compared to children from war areas in terms of traumatic exposure and current threat, these trials indicate that standardised CBT including exposure techniques can be effective for children in vulnerable populations from different cultures.

As most children in war areas live in developing countries where resources are scarce, it is necessary to develop a treatment procedure that is easy to learn and can be carried out by trained lay therapists. Current trauma-focused CBT procedures are too complex in this regard. As no conclusive dismantling studies have been carried out so far, it is unknown what aspects of trauma-focused CBT are responsible for the treatment effect. Research with adults indicates that the combination of different procedures does not lead to a better outcome than the single methods alone (Pine & Cohen, 2002). This finding suggests that the concentration on single methods might help to develop less complicated and more pragmatic procedures that are equally effective. Analysing the requirements of culturally and ecologically sound intervention programs for adolescent victims of war in different cultures, Pynoos and co-workers point to the traumatic experience as main therapeutic focus in treatment, with a clear recommendation of narrative techniques (Saltzman, Layne, Steinberg, Arslanagic, & Pynoos, 2003).

Narrative exposure therapy (NET)

Narrative Exposure Therapy (NET; Neuner, Schauer, Elbert, & Roth, 2002; Neuner et al., 2004; Schauer et al., 2003) is a standardised short-term approach for the treatment of adult survivors of wars and torture.[4] In NET, the participant constructs a detailed chronological account of his own biography in co-operation with the therapist. The autobiography is recorded by the therapist and corrected at each subsequent reading. The special focus of the therapy is to transform the generally fragmented report of traumatic experiences into a coherent narrative. During the discussion of traumatic experiences, the therapist asks for current emotional, physiological, cognitive and behavioural reactions, and probes for relevant observations. The participant is encouraged to relive these emotions while reporting the events. The discussion of a traumatic event is not terminated until acceptance of the emotional reactions presented and reported by the patient takes place. In the last session, the participant receives a written report of his biography, which is signed by both parties.

The focus of the NET procedure is twofold. As with exposure therapy, one goal is to reduce the symptoms of PTSD by confronting the patient with the memories of the traumatic event. The second goal is the construction of a detailed narrative of the event and its consequences.

Furthermore, NET encompasses other important elements, which might explain the high cultural acceptability of this approach, as we observe it:

1. it reinforces the concept of storytelling around significant individual experiences;

storytelling seems to be a universal human activity, particularly in cultures with a strong oral tradition; and

2. the explicit human rights orientation of 'testifying', which seems to be significantly beneficial to this procedure.

Psychotherapy for survivors of human rights violations has often been criticised for neglecting the context of violence, and for medicalising the consequences of war and repression (Bracken, Giller & Summerfield, 1995). Since the testimonies created by the survivors can be used to document human rights violations, the NET procedure helps the person to regain dignity and satisfies the survivor's need for justice. It also offers an opportunity for advocacy on behalf of one's community and people. While the client is invited to explore fear, sadness and loss, the goal of the therapeutic encounter also has a clear human rights orientation. Consequently a high willingness to take part in this form of therapy has been observed (Weine et al. 1998; Neuner et al., 2004).

Narratives in children

Since early 2003 vivo[5] has been implementing the 'Nakivale Camp Mental Health Project' in Uganda. In the framework of this project, besides adult therapy, we also offer a child-friendly version of Narrative Exposure Therapy (NET). One of the key questions that we aim to investigate is whether or not NET can be applied with equal success to children, as to adults (Neuner et al., 2002, 2004); and if so, from what age onwards. Current scientific knowledge holds that narrative requires abilities which are not well developed in early childhood, and does not sufficiently take into account the cognitive framework and the emotional needs of a small child. In general, the capacity for autobiographical memory develops with age. Although infants and young children process and retain information (Bauer 1996), events occurring before the age of 2-3 years cannot be recalled in narrative form[6]. But on the other hand, due to the presence of threat, traumatic events are usually remembered, even in early childhood, and the memories can be remarkably accurate (Koss, Tromp & Tharan 1995). In very young children (age 2-5 years), who cannot perfectly express themselves in coherent narratives but remember fragments, their memory nevertheless was shown to be accurate and correct (Jones & Krugman 1986; Terr 1988; Howe, Courage & Peterson 1994; Peterson 1996), even when the traumatic event took place a long time ago (Widom & Shepard 1996; Widom & Morris 1997; Wagenaar & Groeneweg 1990). Misperception and forgetting significant aspects of the experienced violence and horror are however also common[7]. However, treatment with memory recovery techniques that involve remembering and talking about the traumatic event and its aftermath, was found to improve memory in older children (Goenjian 1997).

KIDNET: portrayal of a lifeline

We developed KIDNET as a child-friendly exposure treatment for children and adolescents with PTSD. Since children often need more help which involves play and visual instruction to elaborate their experiences, we use theatre and illustrative material, such as the 'life-line exercise' during NET treatment sessions (Schauer et al., 2003). A rope is used to represent the child's lifeline. Flowers are used to mark positive experiences along the lifeline, while stones are used to mark negative and traumatic experiences. The child clients re-construct their own lifelines at the beginning of therapy and produce a painting of it (Figure 1).

They are encouraged to name the events for which an item is placed, i.e. 'when we had to leave home', 'death of uncle', and the therapist writes down the headline. In subsequent sessions the therapist is able to use the painting repeatedly for illustrative purposes. At the end of therapy children are encouraged to unwind some of the unused section of the rope, to shed some light on future hopes and fears in their imagination. The life-line exercise is especially important for the first NET sessions with a child. It helps to 'break the ice' quickly and employs creative media, which allows the child's life story to unfold in a playful manner. In fact this simple technique works so well, that we have also been able to use it successfully with adults from many different cultures, especially when it is difficult for a patient to reconstruct a clear chronological order of events in life.

The case of Mohamed

Thirteen-year old Mohamed Abdul[8] was one of the children who were identified as suffering from post-traumatic symptoms during our survey in the camp. He is a Somali refugee boy who reached Nakivale Camp at the age of ten, together with his father, after a forced migration history of several displacements. Mohamed impressed us from the first encounter with his personal charm and cleverness. His behaviour and personal expression was very active, sometimes to a degree where he had trouble sitting still or concentrating for any length of time. He was talented in expressing himself and also in verbalising his thoughts and feelings. During therapy Mohamed was a pro-active client, always asking questions, eager to fully understand and participate.

After Mohamed had been introduced to our form of therapy, he received further psycho-education. A standard written rationale was developed for this. The goal of the procedure was to explain that trauma-related symptoms and dysfunction frequently occur after multiple traumatic experiences. Subsequently, an informed consent sheet was read to him and his father in Somali and signed by all parties. Present at therapy was an experienced female NET therapist, a female NET trainee and a male refugee Somali NET trainee, who acted as interpreter. The therapy was carried out in March 2003 in Nakivale Camp and took a total of 4 sessions of 60-90 minutes to complete, within a timeframe of 3 weeks. The place of therapy was our project base in Nakivale Camp, with the exception of the last session in an office in Mbarara town.

The frequency of Mohamed's post-traumatic symptoms had been assessed using the Post-traumatic Stress Diagnostic Scale (PDS; Foa, 1995). The instrument had been adapted to Af-Somali in the framework of the project[9]. Mohamed presented with a total score of 36 (see table 1), which indicates a high frequency of post-traumatic symptoms.

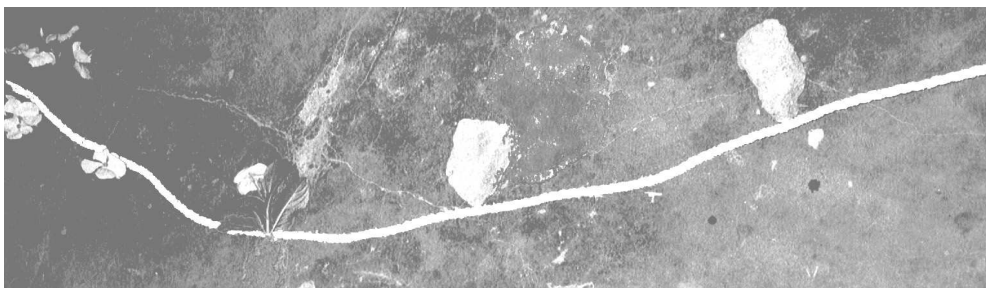

Fig. 1

Mohammed's symptoms could be explained from his traumatic history. In the course of one year, at ages 8 and 9, he had experienced: 1) a street shooting, where he was trampled to the ground by a panicking crowd; 2) seeing dead bodies floating in the water from close range; 3) being shot at with an AK47 and wounded; 4) being beaten in the face with the back of a gun; 5) witnessing the rape of his best friend by 2 adult militia men (worst event); 6) a village raid, where shelling and shooting was going on around him and where he directly witnessed people being severely wounded and mutilated; 7) car accident, where he sat beside the driver, who was killed by a bullet in the head while driving, and where his father was seriously wounded.

Other than these traumatic experiences, Mohamed also suffered the loss of his mother at age 8, when his father decided to leave and relocate; the loss of his best friend and playmate, whom he dearly loved, due to a violent incident; and the loss of his favourite nanny, due to a violent attack and later displacement. The relationship to his father remains the only stable bond and safe emotional contact in his life, up to the present.

Mohamed's story unfolded quickly. As for many of the children whom we have offered NET, the concept of telling us in detail, what he had felt, thought, sensed, and experienced at important moments of his life seemed a natural task for Mohamed. From the start, Mohamed was very clear as to his life experiences, the intervals between each experience, as well as the importance and nature of the flowers and stones representing the experiences. He placed 10 stones on his life line, representing the traumatic events and moments of bereavement and loss mentioned above; also a stay in hospital for the removal of a bullet from his leg, and an incident in which where he destroyed a TV in an enormous fit of rage. The flowers he put on his lifeline were scarce, but stood for emotionally warm and happy moments in his life. At age 6 he earned a special prize in school, which made his family very proud. He remembered his mother giving him new clothes, taking him to the market and caring for him. He remembered playing with his friends in the street in the evening. He remembered finding a best friend, with whom he often played very happily. He remembered his wise grandmother, who comforted him in times of sadness. He remembered his nanny, who he describes as beautiful and warm, like a big sister. Summing up his early childhood, Mohamed said: *'When I remember those days, I wished this life would come back, I was so very happy then.'* Mohamed's traumatic experiences impacted greatly on his social and emotional functioning, and he was very aware of this. He warned us at the beginning of therapy, for example, that we might not be able to 'handle' him, since making him talk about his bad experiences might bring on such a fit of rage that he might actually attack us. We reassured him that we felt capable of handling whatever feelings might 'befall' him, and any 'outbursts of aggressiveness', as he put it.

Session 1 (60 minutes): Mohamed's narrative started with his earliest memories and continued through the happy days of his early childhood. At the beginning of the first session we deliberately spent much time exploring the happy moments of the client's childhood. Like many other children who have endured years of war and conflict, Mohamed had pushed away the memories of good times in his early life far, and it was comforting for him to rediscover them.

Then the first stone encapsulating a traumatic event was placed. Mohamed reports

that he was caught together with his nanny in a street shooting in Mogadishu: *'…suddenly I heard bullets, there was shooting and panic in the street everywhere around me. People were shouting and running. I can hear the sound of the bullets right now when I remember this, people were shouting: 'Allah Aq'bar', and there was the sound of bullets: 'rrrrrrr'. I fell down…a moment later I could feel people running over me. I feel the pain of their feet on my back here and now…my heart is beating fast when I remember this and there is a pain in my chest and back …'.* Mohamed was saved by his injured nanny, who carried him out of danger, and both were taken to hospital. The fear that he reported during this event was very visible to us, he had palpitations and his speech and movements speeded up a great deal. We invited him to relive this emotionally intense moment, by asking questions about the nature of his feelings, thoughts and sensations while experiencing this frightful moment. Subsequently and despite his physical agitation, Mohamed continued his narrative up to the point were he was met by his father and taken to hospital. He said*: 'He held me and hugged me, at that moment all the pain was gone…all I felt was 'I am safe now".* At this moment, Mohamed's agitation was visibly replaced by relief and we encouraged him to envisage the feel of his father's arms once again, and how safe and protected he had felt being held in that way. Having reached a safe place in the storyline, we decided that this marked the end of our first session.

Session 2 (90 minutes): We re-read the script of the narrative from session 1 to Mohamed, exposed him once again to emotionally intense moments and took note of a lot more details of the story which now began to emerge; thereby bringing the narrative of his first traumatic event closer to completion and consistency. Then Mohamed explained further. After a stay of 2 weeks in hospital, he was taken to his grandmother's home village by his father. This was the time to say good-bye to his nanny and he reported in detail how sad this made him feel and what she had meant to him. One day, when he had lived in the village for a month, he was walking alone by the seashore when, close by, he saw dead bodies being washed up on the beach by the waves. Not without initial hesitation, Mohamed continued to describe the sight in detail: '*It was ugly, do you really want to know*?' Upon our reassurance, that we wanted to share every part of his story, he narrated: *'…first I thought the people were swimming. But then I realised that there were about 20 floating bodies. They were black, covered in blood, most of them were children, there were some women, even pregnant ones with big bellies, and a few men. The bodies were floating there on their backs, with their eyes wide open…' Mohamed described how he fell into a state of shock on seeing this scene: '…I started shouting and crying: 'wooohoo'* (we asked him to repeat the sound for us), *I was shaking all over, I could not move, although all I wanted to do was run away. I felt such fear, my heart was racing. I can even feel it now, as soon as I begin talking about this moment.'* Again, it was easy for us to observe Mohamed's agitation while speaking. His face was also distorted in repulsion. We fed back our observation to him and invited him to relive this moment again by verbalising his feelings in detail. Then he continued. His friends found him in this state and took him home. Upon reaching home he reports: *'…the memory of the street shooting in Mogadishu had also come back. My nose was bleeding, I had a terrible headache and the pain in my back, where people had stepped on me, came back I could not talk or eat for a week.'* He pointed to the place on his back, where he felt most pain, while talking. He described the concerned reac-

tions of his father and grandmother, and his slow recovery. A few weeks later Mohamed made the acquaintance of Halimo, a girl of his age from the village, who became his best friend. Mohamed described her personality and looks in great detail and gave us small instances of their friendship: *'…we liked each other instantly. Soon we were spending most of our time together and playing games…we started giving each other little gifts …Halimo was always there for me, she went everywhere with me and helped me forget all the bad things that had happened to me. We shared the roots of our hearts. Can you ever forget such a beautiful friend?'* At this point is was difficult for Mohamed to continue. He initiated a conversation about why he needed to report every bad thing that had happened to him. He said: 'Maybe this is enough about this one, I will tell you another one that happened later in more detail'. We reminded Mohamed why we felt it was important that he shared all his life experiences in great detail with us, especially the most painful ones. We told him that those were the ones that caused him the most suffering up to the present. We empathised with his obvious feelings of fear and reassured him that we would be there for him, no matter what the story might bring up. Even though his agitation remained extreme, he was ready to continue. Whereas up till now he had sat quite relaxed on a chair, he now pulled his knees up tight and hugged his knees with his arms. He continued. Mohamed and Halimo walked home from school one day, when they were attacked by seven militia men: *'…one of them started shooting. It was rapid fire, one bullet hit my leg on the left side. At first I didn't feel the pain, then I noticed that my left leg was failing to function…then the pain came, it was a strong, pumping kind of pain…my hands were full of blood too. Then my leg became weak and I fell down…Halimo was crying and shouting: 'Mohamed get up, let's run, let's run.' Her face was full of fear, her eyes were wide open…I could not talk, I was just looking at her.'…'* Mohamed was knocked unconscious by the back of a gun. Meanwhile the men had got hold of Halimo and started to rape her. When Mohamed regained consciousness he observed the following: *'…Halimo's clothes were torn and she was naked. One of the men had pulled down his trousers to his knees. I saw him penetrating her, moving kind of up and down. One side of his face was very damaged, …it was all so ugly and disgusting, I was horrified…while the deformed man was raping Halimo, the others were standing there watching, laughing and shooting in the air. These were the sounds I could hear and they ring in my ear whenever I think of that day. Halimo's lips were swollen, bleeding, she was injured on her right cheek near the eye. Her eyes were wide open and dark. She seemed unconscious. I felt terrible pain, but I tried to move, shout, do anything, throw a stone at least, to make them stop, but I was frozen, paralysed, I could not move. I was so angry. My body failed me completely, I was trapped. I felt so helpless. Since then I blame myself for not helping her…when the second man started raping her I fainted again, it was too much, too terrible to bear...'* We learnt that Mohamed's most recurrent intrusions were connected to the image of the deformed looking man raping Halimo. We invited him to tell us in detail, what the men's faces looked like, what Halimo looked like and what else he could observe, feel, hear, smell, think, etc. He was able to remember in great detail. At the end of this verbal recall Mohamed's feeling changed from fear to sadness. Tears rolled down his cheek and he had a strong expression of helplessness. He buried his head in his knees, resembling a small person carrying a great burden. We empathised with his feeling and gave Mohamed time to fully emotionally process his feelings of sadness and guilt. Since time

was running out and Mohamed had become tired, we decided to come to the end of session 2. We needed to make sure however that Mohamed was at least taken to a somewhat comfortable place of safety in his narrative and memory, and encouraged him to tell us how he was saved. He reported that he regained consciousness only in hospital. Again his father sat beside him, and held his hand.

Session 3 (90 minutes): Once again we re-read the documentation of session 1 with the added information of session 2 to Mohamed, encouraged him to relive emotionally intense moments and took note of any additional details which emerged, thereby bringing the narrative of his first two stones - traumatic experiences - once again closer to completion. Then we explored further together. We learnt that Mohamed had a difficult time in hospital: *'…the nights in hospital were horrible, I couldn't sleep, I saw the face of the rapist, I saw everything red when I remembered. I could not eat, I was blaming myself for what had happened, I was feeling so guilty and angry. A very deep feeling of darkness came into my heart and has never left me up to today'.* Mohamed described how he had started mistaking strangers, i.e. his doctor for the rapist and how he suffered flashbacks*: '…the doctor entered the room and for the first time the face of an ordinary man turned into the face of the rapist. I was terrified seeing him and screamed: 'I will kill you".* Apparently, this happened to him again later. He reported how he tried to attack his teacher in school and innocent passers-by in the street. During this time he also suffered from nightmares, mainly about dead bodies floating in water and rape scenes. He recalled remaining in a state of great fear while in hospital, even though he knew he was safe. He also talked about feelings of anger, tension and fury. He was unable to tell his father, who kept inquiring what had happened. His feelings of guilt remained strong even after he left hospital. Halimo's parents came to visit, but he did not want to see them*: '…I could not face them. I could not open the door. I felt so bad. How could she ever forgive me for not having helped her when she needed me most? Sometimes she comes to me in my dreams, even now, and she looks beautiful and kind, just like she used to. But I cannot forgive myself…'*. His father took Mohamed to a small village where relatives lived. Mohamed recalled that there were many children, playing together, but he was unable to participate. He stayed indoors, watching what went on outside from the window. After 3 weeks the war reached this village also. Mohamed was alone in the house: *'There were explosions, gunfire and the sound of bullets all over the place…people ran around and fled to the forest. I was full of fear, shocked and paralysed, but I ran behind the house. From there I could not move, I just stood there, my heart was racing and my whole body was shaking…one man was lying very near to me on the ground, torn in two parts. A shell must have hit him…he was still crying and screaming, there was a lot of blood. The sight of him was horrible, it looked so awful. All I could do was to close my eyes, I could not move…'* Once again Mohamed was seated in front of us with his knees pulled up. He accompanied his report with lively gestures, showing us where the body of the man had been torn apart, how his inside looked and how he closed his eyes when it all got too much. Finally Mohamed was rescued by his father and taken to a car. We learnt that the car started moving, but after a short while, the driver was shot dead through the windscreen, the car subsequently went off the road and Mohamed was catapulted out of it, unharmed. His father remained inside, injured but alive. This time it was Mohamed's turn to look

after his sick and unconscious father in hospital and to hold his hand at his bedside, worrying about his life. During this time Mohamed slept in the hospital beside his father and was fed by nurses. After a few weeks he and his father left the hospital and moved in with friends in a new town. At this point in therapy we were aware, looking at Mohamed's lifeline, that all the bad events, which he had marked with stones, had been narrated. We closed session 3 by reinforcing Mohamed's feeling of pride for having had the courage and endurance to get medical help for his father and care for him in hospital.

Session 4 (80 minutes): Again we re-read the combined narrative of session 1, 2 and 3 to Mohamed, exposing him once again to emotionally intense moments and taking note of final additions and details; thereby bringing the narrative to near completion. His state of agitation concerning traumatic experiences had greatly decreased, but he still reported moments of accelerated heartbeat at times. We noticed that he now sat in a more relaxed way on his chair, listening intently (as we had invited him to do), so as to ensure that all was written down correctly, supplying more details here and there when asked. In this way, we took him back in time, to the locations that caused his traumata. From there, we explored his life up to the present. We learnt that after two more displacements, Mohamed and his father reached Nakivale Camp in Uganda. His father remarried, but this was obviously not a big event for Mohamed. He reported that he was burdened by the memories of the past in many ways by the time he reached Nakivale Camp. He reflected on how his traumatic experiences had impacted on his life in the past, also indicating a cognitive shift in processing the meaning that the past experiences had had on his young life: *'…I kept seeing the pictures of Halimo and the day she got raped. They kept coming back to my mind. When I was in such a state of memory and fear, the face of any man I looked at could turn into the face of that deformed rapist. That's when I would lose control. All I wanted was to chase and beat up that person. I could get very angry then. If I got into such a state with people whom I liked or admired, I felt bad afterwards. It made me feel as if there were two people inside me. People didn't understand why I acted strangely sometimes, and I couldn't tell them. In the past, when I saw children playing and being happy, I had to cry because I could never do something like that again. Sometimes I found myself sitting in strange places…crying without having any idea how I got there. I felt as if there were two personalities living inside me. One was smart and kind and normal, the other one was crazy and violent. I tried so hard to control this other side of myself, but I failed. Sometimes I felt tears running down my cheeks and I wondered why. Sometimes I walked down the street and suddenly I saw the path in the bush in front of me on that day, and I felt Halimo's hand pulling my hand, trying to make me run and escape. Since that day I couldn't take shortcuts anymore. Even a normal bush could bring back all the memories. And when the memories of the rape came, all the other pictures were in my mind as well, like the dead bodies in the ocean…for a long time I was completely absent, far away, dealing with the darkness in my heart.'*

At the end of session 4 we asked Mohamed what his future plans were, and encouraged him to explore the end of his lifeline which was still coiled up. He replied: *'Now that I have talked about all that has happened to me, I would also like my father to know. I want him to read my story…I want to live like a normal person, get married and have children. I would like to be a doctor or a lawyer. I would like to help people.'*

Post-test

The Somali version of the PDS was applied for the 6 month-post-test by expert interviewers, blind to the individual child's treatment condition in the study (see table 1). The trauma event checklist showed that Mohamed had not been exposed to additional traumatic events since the end of therapy. An important piece of information in the circumstances, where clients continue to live in potential situations of conflict. The post-test revealed that Mohamed's symptoms had remitted to a degree below the diagnostic threshold for PTSD. The overall symptom score has dropped to one third of the original score (of 36). Avoidance symptoms had gone down to zero and intrusive symptoms had also disappeared almost completely. His symptoms of hyperarousal were still present at times, but they no longer interfered with his life and functioning to the extent that he felt he was out of control.

Discussion

Finding ways to effectively reduce, as well as prevent, the psychological suffering of victims of war, especially children, is an important challenge for scientists and aid organisations alike, and indeed remains an ethical obligation. In the presented case study KIDNET has again proven a suc-

Post-traumatic Stress Diagnostic Scale Item (short description)	Pre-test	6-month-post-test
1. Intrusive thoughts	2	1
2. Nightmares	2	0
3. Flashbacks	2	0
4. Upset when reminded	3	1
5. Physical reactions when reminded	3	1
6. Trying not to think and talk about event	3	0
7. Avoidance of associated places and people	1	0
8. Partial amnesia	1	0
9. Less interested in activities	3	0
10. Feeling cut off from others	3	0
11. Numbing	1	0
12. Hopelessness in terms of future	3	0
13. Trouble sleeping	1	2
14. Irritability	1	2
15. Trouble concentrating	3	2
16. Overly alert	3	1
17. Startle response	2	2
Total score	36	12

Table 1: Mohamed's pre- and post-test PDS item scores indicate frequency rating of symptoms: 0 means "not at all or only once in the last month", 1 means "2 to 4 times in the last month"; 2 means "5 to 16 times in the last month", 3 means "almost always".

cessful approach for the treatment of traumatised child survivors. We maintain that the tradition of joint psychological and testimony approaches, chronicling major events of the entire lifetime - good or bad - may offer opportunities to remedy mental suffering and to provide adequate assistance to children in need. The results of this case study indicate that it is possible that well-established knowledge about the efficacy of exposure techniques for the treatment of PTSD (Foa, 2000; Neuner et al., 2004) may be transferred to child refugee populations, even when living in unsafe conditions. In contrast to a variety of other cognitive behavioural approaches, KIDNET is shorter (usually not more than six sessions are applied) and the procedure is more pragmatic and might be easier to learn for therapists without a psychosocial education. This makes the method especially appropriate as one tool in community-based approaches in war and disaster areas. A strict evaluation of community-based interventions will have to show what additional interventions, such as support of the family system, are beneficial or necessary within a complex community-based framework.

A note of caution, however, seems necessary. In the case of adults, as we already know, inadequate treatment can do more harm than good. Exposing the patient too briefly to traumatic memories, not allowing complete habituation to aroused emotional reactions (i.e., learning that these memories are not frightful) and insufficient reconstruction of the major traumatic events will not end the suffering, and may even increase anxiety and lead to even greater disappointment and depression. 'Conspiracy' between therapist and patient, the tacit agreement not to narrate and thus expose patient and therapist to the major traumatic events in imagination, is another common risk, whereby avoidance ensures that only the most negligible events are elaborated in great detail. More research must follow, focusing on significant numbers of refugee children treated with KIDNET. Our next focus will also be on the success of the application of treatment by trained local refugee therapists. Further, more insight must be gained in how parents, caretakers, teachers and other significant adults can be actively involved in the recovery processes of children, individually and at a community level. In addition, the applicability and efficacy of KIDNET for even more different groups of especially vulnerable populations (e.g. orphans, former child soldiers) has to be established.

Furthermore, knowledge must be established on how co-morbid disorders and somatic complaints can be taken care of in a comprehensive KIDNET for traumatised and displaced children. More collected narratives of child survivors, chronicling child rights violations, must reach institutions, governments and international bodies in order to inform the general public on the consequences of modern warfare on millions of children, and its implications for the future of war-torn countries and regions.

References

Bauer, P.J. (1996). What do infants recall of their lives? Memory for specific events by one- to two-years-olds. *American Psychologist*, 51, 29-41.

Bracken, Giller & Summerfield (1995). Psychological responses to war and atrocity: the limitations of current concepts, *Social Science and Medicine*, 40, 1073-108

Bremner, J.D., Krystal, J.H., Southwick, S,M. & Charney, D.S. (1995). Functional neuroanatomical correlates of the effects of stress on memory. *Journal of Traumatic Stress*, 8, 527-545

Cienfuegos, J., & Monelli, C. (1983). The testimony of political repression as a therapeutic instrument. *American Journal of Orthopsychiatry,* 53, 43-51.

Dyregrov, A., Gupta, L., Gjestad, R., & Mukanoheli, E. (2000). Trauma exposure and psychological reactions to genocide among Rwandan children. *Journal of Traumatic Stress,* 13, 3-21

Ehlers, A., & Clark, D. M. (2000). A cognitive model of post-traumatic stress disorder. *Behavioral Research and Therapy,* 38, 319-345.

Elbert T., & Rockstroh B. (2003) Stress factors. The science of our flexible responses to an unpredictable world. *Nature,* 421, 477-478.

Foa, E. B. (1995). *Post-traumatic Stress Diagnostic Scale (PDS)*. Minneapolis: National Computer Systems.

Foa, E. B. (2000). Psychosocial treatment of post-traumatic stress disorder. *Journal of Clinical Psychiatry*, 61*,* 43-51.

Goenjian, A.K., Karayan, I., Pynoos, R.S., Minassian, D., Najarian, L.M. Steinberg, A.M. & Fairbanks, L.A. (1997). Outcome of psychotherapy among early adolescents after trauma. *American Journal of Psychiatry,* 154, 536-542.

Howe, M.L., Courage, M.L., & Peterson, C. (1994) How can I remember when 'I' wasn't there: Long-term retention of traumatic experiences and emerge of the cognitive self. *Consciousness and Cognition*, 3, 327-355.

Jones, D.P.H. & Krugman, R.D., (1986) Can a three-year-old child bear witness to her sexual assault and attempted murder? *Child Abuse and Neglect*, 10, 253-258

Karunakara, U., F. Neuner, M. Schauer, K. Singh, K. Hill, T. Elbert, G. Burnham (2004). Traumatic Events and Symptoms of Post-traumatic Stress Disorder amongst Sudanese nationals, refugees and Ugandan nationals in the West Nile. *African Health Sciences*, *in press.*

Kinzie J.D., Sack, W.H., Angell R.H., Clarke G. (1989). A three-year follow-up of Cambodian young people traumatized as children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 28, 501-504

Koss, M.P., Tromp, S. & Tharan, M., (1995) Traumatic Memories: empirical foundation, clinical and forensic implications. *Clinical Psychology: Research and Practice*, 2, 111-132 .

Neuner, F., Schauer, M., Elbert, T., & Roth, W. T. (2002). A Narrative Exposure Treatment as intervention in a refugee camp: a case report. *Journal of Behavioural and Cognitive Psychotherapy*, 30, 205-209.

Neuner, F., Schauer, M., Klaschik, C., Karunakara, U., Elbert, T. (2004) A comparison of Narrative Exposure Therapy, Supportive Counselling and Psychoeducation for the treatment of traumatized Sudanese refugees in a Ugandan settlement. *Journal of Clinical and Consulting Psychology, in press*

Papageorgiou V., Frangou-Garunovic A., Iordanidou R., Yule W., Smith P., Vostanis P. (2000). War Trauma and Psychopathology in Bosnian Refugee Children. *European Child and Adolescent Psychiatry*, 9*,* 84-90

Peterson, C. (1996) The preschool child witness: Errors in account of traumatic injury. *Canadian Journal of Behavioural Science*, 28, 36-42.

Pine, D. S., & Cohen, J. A. (2002). Trauma in children and adolescents: risk and treatment of psychiatric sequelae. *Biological Psychiatry, 51*, 519-531.

Saigh P.A. (1991). The development of Post-Traumatic Stress Disorder following four different types of traumatizations. *Behaviour Research & Therapy*, 29*,* 213-216.

Saltzman, W. R., Layne, C. M., Steinberg, A. M., Arslanagic, B., & Pynoos, R. S. (2003). Developing a culturally and ecologically sound intervention program for youth exposed to war and terrorism. *Child and Adolescent Psychiatric Clinics of Northern America, 12*, 319-342, x.

Schauer, M., Neuner F., Schauer E., Elbert T. (2003). *Training Manual for Narrative Exposure Therapy (NET) – A short term intervention for the treatment of Traumatic Stress Disorders in Children & Adults*. Vivo: Cupramontana, Italy.

Schauer, M., Neuner, F., Karunakara, U.K., Klaschik, C., Elbert T. (2003). PTSD and the building block effect of psychological trauma among West-Nile Africans. *ESTSS Bulletin,* 4.

Somasundaram, D.J. (1993*). Child trauma.* Jaffna: University of Jaffna, Sri Lanka

Stein, B. D., Jaycox, L. H., Kataoka, S. H., Wong, M., Tu, W., Elliott, M. N., et al. (2003). A mental health intervention for schoolchildren exposed to violence: a randomized controlled trial. *Jama, 290*, 603-611.

Teicher, M.H., Andersen, S.L., Polcari, A., Anderson, C.M., Navalta, C.P. (2002). Developmental neurobiology of childhood stress and trauma.. *Psychiatric Clinics of North America* 25, 397-426

Terr, L.C. (1988) What happens to early memories of trauma? A study of twenty children under age five at the time of documented traumatic events. *Journal of the American Academy of Child and Adolescent Psychiatry*, 27, 96-104

Tessler, M. & Nelson, K., (1994). Making memories: the influence of joint encoding on later recall by young children. *Consciousness and Cognition*, 3, 307-326

Thabet, A. A., & Vostanis, P. (1999). Post-traumatic stress reactions in children of war. *Journal of Child Psychology and Psychiatry*, 40, 385-391.

Thabet, A. A., & Vostanis, P. (2000). Post traumatic stress disorder reactions in children of war: a longitudinal study. *Child Abuse and Neglect*, 24, 291-298

vivo (2003) *Epidemiological Survey of Children's Mental Health in the Vanni Region*, Ministry of Human Resources Development, Education and Cultural Affairs & GTZ/BECARE: Kilinochichi and Colombo, Sri Lanka

Wagenaar, W.A. & Groeneweg, J. (1990). The memory of concentration camp survivors. *Applied Cognitive Psychology*, 4, 77-87.

Weine, S. M., Kulenovic, A. D., Pavkovic, I., & Gibbons, R. (1998). Testimony psychotherapy in Bosnian refugees: A pilot study. *American Journal of Psychiatry,* 155, 1720-1726

Widom, C.S. & Morries, S. (1997). Accuracy of adult recollections of childhood victimization: Part I. Childhood sexual abuse. *Psychological Assessment*, 9, 34-46.

Widom, C.S. & Shepard, R.L. (1996). Accuracy of adult recollections of childhood victimization: Part II. Childhood physical abuse. *Psychological Assessment*, 8, 412-421.

Williams & Banyard, *Trauma and Memory*, 1999

[1] We appreciate the assistance of our local interviewers and our logistician Mercy Onyut from vivo Uganda. We are grateful for the warm reception and support by the refugee community of Nakivale camp and the full support granted by the Government of Uganda. Work was supported by the Deutsche Forschungsgemeinschaft and vivo international

.

[2] For example: Kinzie et al. 1989 in children from Cambodia; Saigh, 1991 in Lebanese children; Somasundaram 1993 in Tamil children from Sri Lanka; Dyregrov et al., 2000 in Rwandese children; Thabet & Vostanis, 1999, 2000 in Palestinian children from Gaza; Papageorgiou et al., 2000 in children from Bosnia-Herzegovina; and Karunakara et al., forthcoming, in Sudanese & Ugandan children. Our investigations in Sri Lanka's North Eastern Provinces exemplify the consequences of traumatic experiences and resulting PTSD on children. In an epidemiological survey, which interviewed a representative sample of 420 Tamil school children in the LTTE controlled Vanni Region of Sri Lanka's North-East, *vivo* (www.vivo.org) found that 92% of the surveyed children had experienced one or more severely traumatising events, such as being caught in a combat situation, being bombed, shelled, witnessing the violent death of a loved one, among others. Of those about a third of the children (29% of the total sample) suffered from severe and chronic PTSD (*vivo* 2003), often co-morbid with depression and somatisation.

Elisabeth Schauer & Verena Ertl work at vivo Mbarara, Uganda & Cupramontana Italy, Lamaro P. Onyut works at vivo Mbarara, Uganda & Cupramontana Italy and Mbarara University of Science and Technology, Thomas Elbert, Frank Neuner, Michael Odenwald & Maggie Schauer work at vivo Mbarara, Uganda & Cupramontana Italy and the University of Konstanz, Germany.
Correspondence address of author: Prof. Dr. Thomas Elbert, University of Konstanz
Centre for Psychiatry, Feursteinstr. 55, Haus 22
D-78479 Reichenau-Lindenbühl, Germany,
Thomas.Elbert@vivo.org
Phone: +49 7531/88-4609 and -88-3363
Fax: +49-7531-88-4601

Just as in adults (Schauer et al., 2003) we saw a significant relationship between the number of traumatic events reported, and the number of difficulties children reported in social and emotional functioning.

[3] As suggested by studies in humans and clearly demonstrated in animal models, the impact of severe stress during development may leave an indelible imprint on the structure and function of the organism, and the brain in particular (Elbert & Rockstroh, 2003).

[4] It is based on the principles of cognitive behavioral exposure therapy by adapting the classical form of exposure therapy to meet the needs of traumatised survivors of war and torture. In exposure therapy, the patient is requested to repeatedly talk about the worst traumatic event in detail while re-experiencing the emotions associated with this event. In the process, the majority of patients undergo a habituation of the emotional response to the traumatic memory,

which consequently leads to a remission of PTSD symptoms. As most of the victims of organised violence have experienced many traumatic events, it is often difficult to identify the worst event before treatment. To overcome this problem, we based our approach on Testimony Therapy (TT), a method of therapy created by Lira and Weinstein (published under the pseudonyms Cienfuegos and Monelli, 1983) to treat traumatised survivors of the Pinochet regime in Chile and successfully applied in an uncontrolled trial to Bosnian refugees in the US (Weine, Kulenovic, Pavkovic, & Gibbons, 1998). Instead of defining a single event as a target in therapy, the patient constructs a narrative about her or his whole life from birth up to the present while focusing on the detailed report of the traumatic experiences. Moreover, recent theories of PTSD and emotional processing suggest that the habituation of the emotional responses is only one mechanism for the improvement of symptoms. Other theories suggest that the distortion of the explicit autobiographic memory about traumatic events leads to a fragmented narrative of the traumatic memories, which results in the maintenance of PTSD symptoms (Ehlers & Clark, 2000).

[5] The authors of this article are members or associates of vivo, an international NGO, that works to overcome and prevent traumatic stress and its consequences within the individual as well as the community, safeguarding the rights and dignity of people affected by violence and conflict. *vivo* further aims to strengthen local resources for the development of peaceful, human rights-based, societal ways of living.
www.vivo.org; info@vivo.org

[6] Due to developmental limits young children have insufficient knowledge to help them understand, make sense of information and retrieve higher order memories (Williams & Banyard 1999).

[7] Memories for traumatic events may be encoded differently, partly at somato-sensory level as opposed to more exclusively at verbally mediated level (Bremner 1995).

[8] Original name changed

[9] The questionnaires were translated using several stages of translations, blind back translations and subsequent corrections by independent groups of translators that were recruited from the refugee community. Further inquiries about details and examples of symptoms were made by the experts with the help of the translators to ensure a correct understanding of the symptoms and to validate the clinical significance of symptoms and the severity rating of PTSD.