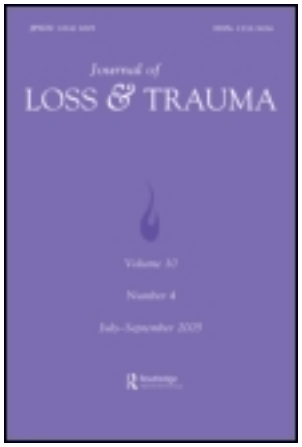

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Children's Perspectives on Dealing With Traumatic Events

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Children's Perspectives on Dealing With Traumatic Events

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Understanding children's recovery after trauma is considered important, but existing theories are mainly based on adult research. We carried out semistructured interviews with 25 purposively sampled children (8–12 years old) exposed to single-incident trauma. The children had been affected by the event itself but also by a long aftermath with secondary stressors. Most children had recovered gradually, were impressed by and benefited from the social support they received, and displayed a wide range of coping behaviors (categorized under concentrating on the normal and the positive, avoiding risks and reminders, actively working through trauma, seeking support). Current theories need child-focused adjustments.

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Children who are exposed to trauma, such as a serious road traffic accident, a house fire, the sudden life-threatening condition or death of a family member, natural or manmade disaster, and individual or mass violence, are helped by various child serving agencies. These include health, mental health, education, child welfare, first responder, and criminal justice systems (Ko et al., 2008). Children's functioning and well-being after exposure depend on these professionals' understanding of traumatic stress (Kazak et al., 2006; National Child Traumatic Stress Network, 2004). "Trauma-informed care" can change the way in which children respond to and cope with emotional reactions to trauma and improve general outcomes, both physically and psychosocially. However, there is a lack of knowledge regarding how children deal with traumatic events.

At least 14% of all children (Alisic, Van der Schoot, Van Ginkel, & Kleber, 2008)—more than 65% in some population samples (Copeland, Keeler, Angold, & Costello, 2007)—are exposed to trauma in peacetime. Although most children recover after displaying initial stress symptoms, a significant minority suffers from long-term psychological problems. Estimations are that 36% of the children who have been exposed to trauma develop posttraumatic stress disorder (PTSD; American Psychiatric Association, 2000; Fletcher, 2003). PTSD is characterized by symptoms of intrusion (e.g., recurrent distressing memories, nightmares), avoidance and numbing (e.g., avoiding conversations about the experience, losing interest in former hobbies), and hyperarousal (e.g., irritability, concentration difficulties). The disorder can impair children's development in emotional, social, academic, as well as physical domains (Fairbank & Fairbank, 2009; Seng, Graham-Bermann, Clark, McCarthy, & Ronis, 2005).

Several theories have been formulated to understand psychosocial recovery from traumatic exposure. For example, Horowitz (1976) modeled the process of working through trauma as starting with an "outcry" at the realization of the trauma, followed by a need for integration of the experience in a person's cognitive schemas until "completion" occurs. At the heart of the process of integration is an oscillation between intrusive repetitions (e.g., recurring memories of the event) and numbness, repression, and denial. Regarding cognitive schemas, Janoff-Bulman (1992) suggested that people unconsciously maintain an "illusion of invulnerability" until they are confronted with trauma. The event is thought to shatter one's fundamental assumptions that the world is benevolent and meaningful and that the self is worthy. This author described cognitive strategies that survivors use to rebuild their inner world, such as comparing oneself with less fortunate others. A further example of theory involves coping. According to Lazarus and Folkman (1984), two major ways of handling stressful experiences exist. The first is focused on changing the troubled person-environment relationship (active, problem-focused coping), whereas the second concentrates on changing the emotions that are implied (passive, emotion-focused

coping). A final example concerns a model of benefit-finding or posttraumatic growth. Tedeschi, Park, and Calhoun (1998) described the experience of positive change as a result of the struggle with highly challenging life crises. They proposed three domains in which this positive change occurs: perception of self (e.g., feeling stronger), interpersonal relationships (e.g., becoming closer to relatives and friends), and philosophy of life (e.g., changing priorities).

These theories are, however, predominantly based on research in adults, whereas it is thought that children undergo qualitatively different recovery processes (Salmon & Bryant, 2002). For example, children's cognitive and emotional skills, such as appraising situations and regulating emotions, are still developing. They might appraise threatening situations in a different way because their frame of reference is less clearly defined. In addition, they have not yet fully acquired the ability to reflect on and verbalize complex emotions, which can influence their way of working through trauma and experiencing change (see Salmon & Bryant, 2002, for an overview). Although considered important, the applicability and usefulness of the above-mentioned theories with regard to children have only started to be tested (Ehlers, Mayou, & Bryant, 2003; Kilmer & Gil-Rivas, 2010; Meiser-Stedman, 2002; Salter & Stallard, 2004).

A qualitative, child-centered approach is needed to advance the understanding of how a child experiences recovery after trauma. Children's experiences involve complex and dynamic processes (e.g., interactions with significant others and changes in these interactions over time). To build up a broad understanding "beyond measures and numbers," we need to complement quantitative research with qualitative research (Malterud, 2001b). In addition, it is increasingly recognized that children should be given a voice in (mental) health issues (Kirk, 2007). Because questionnaires and structured interviews give children limited means to convey their experience, exploratory, qualitative studies are both necessary and desirable. So far, qualitative, child-centered studies on recovery from trauma have been thin on the ground and very specific. They tended to focus on one type of event (e.g., anticipated death of a parent; Saldinger, Cain, & Porterfield, 2003) or one type of outcome (e.g., posttraumatic growth; Salter & Stallard, 2004), or were restricted by very small samples (e.g., six children; Urman, Funk, & Elliott, 2001). Such confined circumstances preclude the generalization of findings. We aimed to advance theory building and trauma-informed care. We conducted semistructured interviews to find out how the recovery process was experienced by children who had faced traumatic events of various natures and which factors they identified as helping or hindering.

METHOD

Participants

Study participants were recruited from the University Medical Center Utrecht (Utrecht, the Netherlands). Children registered as having

experienced a single-incident trauma were eligible for the study, provided they were aged between 8 and 12, they did not or no longer receive mental health care, and the event had occurred at least 6 months previously. We focused on children in the last 4 years of elementary school to ensure that they were all in the same developmental stage and able to verbalize emotions and thoughts (Salmon & Bryant, 2002). The traumatic events fitted the A1 exposure criterion for PTSD in the DSM-IV (American Psychiatric Association, 2000). We defined single-incident trauma as an acute event that did not occur in the context of chronic abuse, chronic maltreatment, or war (cf. Terr, 1991). We recruited families by letter and then called them to answer any questions. Written informed consent and verbal assent were obtained from the parents and the children, respectively. Inclusion in the study was continuous and carried out according to purposive sampling to achieve a maximum range in demographic characteristics, types of trauma, time since trauma, and degree of mental health care. We ended including children when theoretical saturation had been reached, that is, when no significant new themes were emerging. The Medical Ethics Committee of the University Medical Center Utrecht approved the study protocol.

We approached the parents of 34 children for the study. The parents of seven children declined for various reasons including lack of time and concerns about exposing the child to the interview. In the case of two children we were unable to contact both divorced parents for informed consent. Participation was not significantly related to age, gender, or type of trauma ($p > .10$; other variables unknown for nonparticipants). Twenty-five children (15 boys and 10 girls, mean age 10.7 years) participated. Their experiences were categorized under sudden loss, violence, and accidents with injury (see Table 1). The time since the event ranged between 10 months and 7 years, with a median of 27 months. Use of mental health services varied from zero to more than 11 sessions (e.g., psychoeducation, cognitive behavioral therapy) with a mode of two to five sessions.

Interviews

The topics in the interview guide (see Table 2) related to the characteristics of the trauma; immediate reactions; reactions over time; changes in outlook on the world, the self, or others; milestones; and factors that assisted or impeded recovery. The wording of the questions was as open as possible to cover the topics of interest. The interviews were carried out by an experienced, trained interviewer (the first author) after the topic guide had been critically examined in role-play with a clinical psychologist specialized in pediatric trauma care. The second author monitored the wording and openness of the questions in the interviews based on the transcripts. Questions were continuously adapted to themes that emerged during the study on

TABLE 1 Primary Traumatic Events Children Were Confronted With

Type of event	Event
Sudden loss ($n = 6$)	Loss of brother due to drowning
	Loss of sister due to explosion at home
	Loss of father due to suicide
	Loss of sister due to train accident
	Loss of favorite school teacher who died after a cardiac arrest
	Loss of mother and absence of father because father killed mother
Violence ($n = 8$)	Witness to suicide
	Witness to beating of father
	Witness to murder
	Witness to suicide attempt
	Burglary
	Physical assault by another child
	Sexual assault by unknown adolescent boy
	Sexual assault by unknown man
Accidents with injury ($n = 11$)	Cart accident resulting in a liver laceration
	Bike accident resulting in a complicated jaw fracture
	Car accident resulting in multiple injuries
	Fall from tree resulting in a basal skull fracture
	Bike accident resulting in a gastric perforation
	Car accident resulting in a crushed elbow
	Bike accident resulting in a liver laceration
	Fall in swimming pool resulting in a complicated femur fracture
	Hit by a car, resulting in a complicated femur fracture
	Fall from high bed, resulting in a ruptured spleen
	Hit by a truck, resulting in a complicated tibia fracture

the basis of research team decisions. For example, we initially asked about exact timing and order of events or changes (e.g., How long ago did you . . . ?), which turned out too difficult for the children to answer reliably (e.g., they said they did not know, or they gave answers that did not match information we had about an event). Therefore, we deleted these questions from the interview guide.

Because the interviewer was unknown to the children and the topic was sensitive, several measures were taken to make the child feel at ease and in control, including play at the beginning of the interview and a stop sign (a copy of the traffic sign) that the child could use to terminate the interview verbally or nonverbally at any time. One child was shortly in tears during the interview but said that she wanted to continue the interview. None of the children used the sign or any other means to terminate the interview prematurely. The interviews (excluding play, introduction, and ending) lasted 30 minutes on average (ranging from 21 to 60 minutes, audiotaped). Afterwards, the children received a small surprise gift. Additional mental health care was offered after the interview and was accepted by one family.

TABLE 2 Interview Guide

Topic area	Topics and example questions
The event	• Characteristics of the event (e.g., what happened, where, who were there, what did they do?) • Emotions and thoughts of the child during the event (e.g., what did you feel, which feeling was strongest, which thoughts came into your head?) • The worst aspect of the event/what upset the child most (e.g., what was the worst part of the event, what upset you most?) • Shattered assumptions (give example of a changed assumption about e.g., the safety of riding a bike, followed by questions (for younger children) about whether the child recognizes this, or (for older children) whether the event changed his/her ideas about the world/life? The example given should be different from the type of event the child was confronted with?)
Immediate reactions	• Child's emotions, behavior and cognitions (e.g., how did you feel, what did you do, what did you think of, what was your daily program?) • Reactions of others (e.g., how did your family react, what did you think of that, what did your friends do?)
Changes in reactions	• Presence of the event in daily life (e.g., did you think about it, when, where, how did you feel then, what did you do to feel better, were there moments that you did not think of it?) • Emotions (e.g., how did you feel most of the time, which emotion was strongest, did it change, how, when?) • Intrusion and avoidance (example of how children sometimes want to talk about the event, and sometimes do not, followed by 'what was it like for you?') • Milestones (e.g., where there any special moments in the period after the event; could you describe them, did it change anything in how you felt/thought about the event?)
Positive experiences	• Posttraumatic growth (e.g., is there a positive side in the story for you, what did you learn from the event, how did it change things for you in a positive way?)
Influences on dealing with trauma	• Risk factors (e.g., what/who made it difficult for you to deal with the experience, what made you feel bad, how, when?) • Protective factors (e.g., what/who helped you to deal with the experience, what made you feel better, how, when?) • Behavior (e.g., what did you do to feel better, what advice would you give to another child who has had a similar experience, what would you do if a friend of yours had a similar experience?)
Other information	• Other relevant information (e.g., what else do you think is important for me to know?)

Analysis

Interviews were transcribed verbatim, except for names, dates, and locations, which were substituted with functional codes to ensure confidentiality. Analysis was done on the data, and selected quotes for this article were translated into English by an official translator. The data were imported in MAXQDA 2007 (VERBI, 2007). Our approach was inductive (based on grounded theory; Glaser & Strauss, 1967), although the publications mentioned in the introduction represented prior knowledge. Each potentially meaningful fragment in the first four transcripts was coded independently by the first and second authors, and the differences were discussed until consensus was reached. Subsequent interviews were initially coded by the first author and checked by the second author. the other two authors reviewed the codes to avoid potential researcher bias. In line with the "constant comparison" method (Boeije, 2010), new interviews were compared with existing codes to identify similarities and differences. The codes were grouped into conceptual categories and the interrelationships were continuously discussed by the research team. Theoretical saturation was suspected after 20 interviews and then confirmed with five subsequent interviews.

RESULTS

Four interrelated themes emerged from the children's narratives. First, they talked at length about the long aftermath of the trauma. Second, nevertheless, the majority said that they slowly but surely felt better and often identified positive aspects within the negative experience. Third, the importance of support stood out in these stories; they felt supported by people and cuddly toys, although they also experienced some downsides. Finally, they felt that their own behavior had played an important role: They had developed a variety of ways to deal, or cope, with the trauma. These themes are presented below.

Long-Lasting Consequences

Though the children had faced a single-incident trauma, they talked a lot about the serious, long-lasting consequences. The injured children needed long periods of physical recovery during which they were unable to take care of themselves as before. The medical procedures brought additional frightening moments, both in themselves and through confrontation with other injured children. For example, one child recalled:

> And I had to go to the doctor's every afternoon. That wasn't much fun . . . right there, in front of you or behind you, would be a couple of kids that looked really horrendous. One boy had his whole head in

> bandages, because he had a gash in his head. They all had to go there as well, so you were standing there among kids from unbelievably serious accidents.

The children who had experienced loss also felt a long-lasting and omnipresent impact. They missed their caregiver or sibling not only as part of the family but also as a partner in play, and they were confronted with the enduring grief of other family members. The children who were exposed to violence also reported a long aftermath (e.g., having to testify multiple times after sexual assault).

The children talked more about the long-lasting consequences of the event than the event itself. Many had difficulty recalling how they felt and what they did exactly during or directly after the event. Some remembered being frightened. The memories of the children who had sustained injury related primarily to physical pain, sometimes combined with fear, whereas the memories of the children who had experienced bereavement related primarily to immediate feelings of sadness. A few recalled being disorganized or feeling "strange." Several mentioned that they felt odd at not knowing exactly what had happened. They had been trying to fill in the picture by, for example, putting questions over and over again to people who were present at the event.

Virtually all the children talked about being distressed after the event. Nightmares and feeling upset, sad, or scared when reminded of the event figured most prominently in their narratives. Several children talked in detail about reminders. These triggers of distress could be very specific. A boy whose worst moment during the event was seeing a body covered by a white sheet became distressed every time he saw similar scenes on the news, but he still loved to watch horror movies and crime series. Many children suffered from nightmares, which varied from being seemingly unrelated to the event, such as dreams about monsters, to clearly related, as in the case of a boy who lost part of a finger in an incident of violence:

> Then the nightmares started.... Once I was sitting in a train and there was a skeleton behind me who wanted to chop off my arm. Or I was at my gran's and every time I bumped my arm or my leg or my head it fell off.

For many children the world had become a less secure place. Some explicitly stated that their view of the world had been threatened by the event:

> [What is different from what I previously thought] is that water is a bit scary, that you can easily drown. I had heard about it but I had never thought you could die so quickly and that it would happen to my brother.

Other children exhibited this change more indirectly by describing their behavior:

> I am more careful now.... Because people you know well... you can believe them, only you really shouldn't believe people you don't know, you should ask first.

Although many children mentioned a long-term physical and/or psychological impact, all but one felt they had recovered.

Feeling Better a Step at a Time

All the participants but one felt that things had improved since the event. They were actually doing well again. Many children merely said that they "felt better." Others elaborated and implicitly or explicitly compared their current feelings with earlier moments:

> I can think about it now without feeling sad, getting tears in my eyes, or getting scared.
>
> I was scared of red, it was the blood.... My finger had been bleeding like crazy.... Now it's my favorite color.

The children found it difficult to explain the exact nature of the change; most described it as getting better a step at a time or feeling a little better every day. Occasionally, a child went into more detail. A girl who had been raped said she had started sleeping with the light on and the bedroom door open. She described how she had gradually dimmed the light and closed the door until the light was off and the door was completely shut.

Not only did the children speak of a gradual process of coming to terms with the trauma, about 20, when asked, said there had been no milestones or big leaps along the way, further confirming their own vision of a step-by-step recovery. A few children did mention life events, such as moving to another village, changing schools, or the death of a grandparent.

Only one child remarked that his feelings had not changed since the event. He had lost his sister relatively recently compared with the other children. He also said that the whole family was still grieving. His parents visited his sister's grave almost every day and his parents and siblings wept now and then. He did, however, touch on some positive developments, saying that he felt supported by his friends and that he sometimes recalled humorous moments with his sister.

Many children identified positive elements within the negative experience of the traumatic event. For some, these consisted of privileges, such as not having to eat everything in the hospital or enjoying more "computer time" than at home. One of them loved the fast ride in the ambulance with

wailing sirens and having fun in the hospital. Positive changes had also occurred to a more substantial degree in a few children. One boy said that former bullies had been kind since the event and a girl who had lost her mother could empathize more with children in similar situations. Other children felt lucky to have survived an accident or to have been treated by a specialist surgeon.

Receiving Support

The children talked spontaneously and profusely about the support they had received. They described the mounds of postcards, drawings, gifts, visits, and other tokens of sympathy and friendship received from anybody and everybody from close friends to former "enemies," classmates, family members, teachers, (mental) health care workers, and authorities. Peers and family members figured most in the narratives: They expressed sympathy and offered practical help. The support bolstered the children's spirits; they felt that the people around them cared:

> And cards of course . . . I got lots and lots.. . . And drawings from the children in my class . . . I had these drawings hanging in my room for a long time. That was funny, made me feel good. That these kids—yes, your friends—are thinking about you.

A few children placed less emphasis on attention—a response that appears to be linked to the type of event. Whereas accidents and losses lent themselves to people being supportive, violence and suicide incidents appeared to be a different matter. Because these were not always followed by absence from school, classmates might not have fully grasped the seriousness of the event and teachers might not have had a chance to organize a collective class present. But these events did invite sensation-seeking. For example, a boy who had witnessed a suicide said:

> They were all telling stories at school about how they had seen a flowerpot fall on her head, that sort of stuff and then that she fell from a flat, but she simply jumped, and all sorts of other stories.

One special type of support that seemed unrelated to the type of event came from cuddly toys. Many children referred spontaneously to their help. Cuddly toys helped them to sleep, feel better, laugh, and stick up for themselves. They were an ally that made them feel comfortable and that they could "send" their negative thoughts to. One boy said he felt his cuddly toys had magical power to shield him from harm. Children who had been given a bear in the ambulance gave it a special place in their bedrooms. Several

TABLE 3 Ways of Coping

Category	*Coping Method*
Concentrating on the normal and the positive	Playing/doing 'fun things'
	Getting on with normal life
	Thinking positive thoughts
	Enjoying 'trauma gains'
	Joking about the event
Avoiding risks and reminders	Taking more care with activities
	Taking more care when meeting strangers
	Training oneself in fighting techniques
	Avoiding places that remind one of the event
	Choosing carefully who to tell about the event; avoiding sensation seeking
	Asking friends/classmates not to talk about the event
Working through the trauma	Trying to find out what happened
	Attributing causes of the event externally
	Talking about what happened
	Commemorating the event/the lost loved one
	Expressing feelings through poems, drawings
	Seeking gradual exposure to activities/places that have become scary
	Seeking psychological care
	Seeking out bystanders present at the event
Seeking support	Seeking hugs, comfort from parents/siblings
	Seeking comfort/support from cuddly toys
	Telling friends/classmates what happened
	Commemorating received social support

children mentioned cuddly toys when asked what advice they would give to other children in similar circumstances. For example, one child said:

> In any case something to . . . a cuddly toy that.. that comforts you, if I can say so. That helps . . . . When I see mine and I cuddle it, it always made me laugh.

Coping Styles

The children showed a wide variety of ways in which they coped with the traumatic experience. These ranged between conscious strategies and relatively oblivious behaviors and revolved around four interrelated categories (see Table 3).

Concentrating on the normal and the positive

Many children explained that they tried to feel better by engaging in play and "fun activities." This helped because it was entertaining and took their mind off things. Efforts to "get on with life as usual" were also mentioned regularly. The children tried to pick up normal routines and pastimes. For example,

one girl who had suffered a severe arm injury returned to horse-riding as soon as possible after the accident.

Avoiding risks and reminders

About three out of four children tried not to be reminded of the event or made an effort to avoid risks. One girl who had had a cycling accident avoided riding down slopes on her bike in order not to fall again. She chose alternative routes to her friends, even when it took her a lot longer than the direct road. Other children tried to avoid uncomfortable questions about what had happened by being selective in their choice of discussion partners or by asking friends not to talk about the event. One child had the following tactics to avoid reminders:

> Sometimes [my parents] talk about the accident. Most of the time I just say something else so I don't need to talk about it with them. I don't want to talk about it. Then I just start chatting with my sister.... Sometimes they say something and I just nod regularly so they don't notice [that I'm not listening].

Working through the trauma

The children used a variety of ways to actively work through the trauma. They looked for an explanation for what had happened and seemed to be trying to keep a positive self-image intact by suggesting that the blame lay elsewhere or that it was down to providence. For example, a child attributed the event to being in the wrong place at the wrong time:

> It was awful but it could have happened to anybody ... he could have called anybody, and then someone else would have been raped. It might have happened to a friend.... It was just bad luck that it was me.

Some children worked through the trauma by engaging in commemorative acts: They set up little shrines at home for the deceased or they stored items that were linked to their injury, such as the iron pin used to set the fracture or the sling. Several said that it helped to talk with their parents, friends, or therapist about what happened.

Seeking support

Regardless of the content of the exchange with others, many children sought feelings of support. They explained, for example, that they had asked for more hugs from their parents. Several recalled the large—and exact—number of cards they had pasted in a special book or the drawings by friends that hung in their bedroom. Looking at these cards and drawings made them feel good. Some children brought them along to the interview. As mentioned

earlier, several sought comfort from cuddly toys. Again, some brought them along to the interviews.

Virtually all the children mentioned or displayed more than one way of coping. For example, a boy who had survived a car accident said that he joked about the accident, tried to think positively, and had continued as normal. He also clarified that certain circumstances caused the accident, an external attribution. He showed behavior that fell into two of the categories of coping styles, but the majority of the children referred to behaviors that fell into three or all of the categories. For example, a girl who was confronted with a burglary had joined a kickboxing club to learn self-defense, had focused on doing "nice things," and had talked with other people about what had happened. The child who did not yet feel better mentioned relatively few coping strategies; he mainly explained that he commemorated his sister regularly.

DISCUSSION

Twenty-five children between the ages of 8 and 12 described their experience of single-incident trauma and how they came to terms with it. The overall picture showed that the children had been affected not only by the traumatic event itself but also by a long aftermath. In general the children had recovered step-by-step, were impressed by and benefited from the social support they have received, and displayed a wide range of behaviors to cope with what had happened.

Strengths and Limitations

Before we discuss the implications of the findings, the strengths and limitations of this study should be noted. One of its merits lies in the fact that we asked children themselves about their experience and invited them to raise issues that matter to them (Kirk, 2007). The variation in the sample also enabled us to identify commonalities across different types of single-incident trauma, backgrounds, and paths to recovery, which is rare in both quantitative and qualitative research. In addition, the data were continuously analyzed and discussed within a team of researchers, thereby circumventing the subjectivity issues sometimes associated with qualitative research carried out by single researchers (Malterud, 2001a).

The study has clear limitations. First, it was conducted in a country with a Western culture, by researchers with a Western background. Children in the Netherlands may learn to cope with and communicate about trauma in a specific (e.g., individualistic) way. The influence of culture on children's reactions to trauma has been reported for certain types of experiences (i.e., war [Al-Mashat, Amundson, Buchanan, & Westwood, 2006], parental

cancer [Thastum, Johansen, Gubba, Olesen, & Romer, 2008]). In addition, we may have asked questions and interpreted narratives in our own Western, Dutch way. Therefore, the findings should not be generalized to other cultures. Second, the participants came from one hospital, a national center that serves a mixed population. We could not estimate the impact of differences in services in other, often smaller hospitals. For example, it is possible that children in other settings had different types of encounters with (mental) health care professionals.

Third, although this study reveals aspects of dealing with trauma that are important to children, the magnitude of the effects will have to be confirmed in experimental research designs; our approach was exploratory. Fourth, the children reported on their experiences in retrospect. It is possible that their memories were influenced by their current well-being and that they would have brought up other themes when they were "caught in the moment." Also, children found it difficult to reflect upon issues of timing and the nature of changes. It would be valuable to test our findings in a study starting shortly after exposure (provided the children feel "in control" in the research). Fifth, we studied a sample of children exposed to single-incident trauma. Even though this represents a large and sometimes underrecognized group of children confronted with adversity (Adler-Nevo & Manassis, 2005), our findings should not be generalized to children who have been traumatized chronically.

Implications of the Findings

The long aftermath of the trauma, including secondary stressors, such as medical procedures and parental stress reactions, was an important theme for the children. Secondary stressors have already been acknowledged as a risk factor for prolonged posttrauma distress (Pynoos, Steinberg, & Piacentini, 1999). Although there have been several indications that subjective appraisals are stronger predictors of stress reactions to primary stressors (the traumatic events) than objective exposure criteria (Ehlers et al., 2003; Thienkrua et al., 2006), secondary stressors are generally measured from an objective or external perspective only. Researchers have measured, for example, the number of invasive procedures or parental symptomatology (Ostrowski, Christopher, & Delahanty, 2007). The results of the present study show that children's subjective appraisal of secondary stressors should be taken into account.

The finding that the predominant psychological symptoms were trauma-specific fears, intrusive thoughts, and nightmares is in line with earlier research (Meiser-Stedman, 2002; Terr, 1991). In adult models such intrusive symptoms are often seen as the antipole of avoidant reactions: Trauma survivors are thought to oscillate between the two until finding a new equilibrium (Horowitz, 1976). However, although many children showed elements of

both, they primarily described a step-by-step recovery without big leaps. We therefore suspect oscillations to be unconscious or relatively subtle phenomena in children.

Our findings suggest that the theory of shattered assumptions (Janoff-Bulman, 1992) needs some adjustment with regard to children exposed to single-incident trauma. The children's outlook on the world had changed, which is in line with the theory but, in contrast, their self-image was still intact. Many searched for explanations as to why the incident had happened in the first place and why it had happened to them. The answers they came up with attributed possible responsibility for the incident to an external source, which is more in line with the notion of "minimal learning" (Brom & Kleber, 2009). This notion implies that when children attempt to cope with trauma, they try to keep their basic assumptions or schemata intact. They might build adaptive illusions and apportion blame because it is easier to attribute a particular meaning to an event than to change a deeply entrenched system of personal beliefs: Core assumptions about oneself (e.g., "I am strong and worthy") will be protected more vigorously than marginal assumptions (e.g., "Strangers are benevolent"). In our view, further insights could be gained by exploring the effects and boundaries of minimal learning in children and ways of stimulating minimal learning without losing contact with reality.

Whereas minimal learning relates to resistance to negative change, posttraumatic growth theory relates to the experience of beneficial change (Kilmer & Gil-Rivas, 2010; Tedeschi et al., 1998) in the form of, for example, a greater sense of personal strength or connectedness with other people. In our sample, we found only a few indications of explicit personal growth as outlined in the theory (e.g., feeling more empathy), but many children identified "smaller" positive elements within the negative experience (e.g., having had fun). It has been suggested that the experience of posttraumatic growth requires a well-developed ability for abstract reasoning and self-awareness. Our findings converge with those of Salter and Stallard (2004), who, in a sample with a wide age range, reported that posttraumatic growth occurred mainly among the adolescents and not the younger participants. In contrast to fundamental changes for the positive, the smaller positive elements within the negative experience appeared in many narratives in the current study. The possibilities of fostering positive experiences in children exposed to trauma (Brown, 2007) should be further studied to inform intervention development.

Support proved very valuable to the children, particularly the support from peers, family members, and cuddly animals. Although peers play an important role in middle childhood (Rubin, Bukowski, & Parker, 2006), studies on peer support for traumatized children are rare (Fowler et al., 2009). Our findings suggest that peer support might be a mediator between trauma and recovery, with some types of trauma (e.g., injury) being more amenable than others (e.g., violence). Our findings also confirm the important role

played by the response of family members (Kassam-Adams, Fleisher, & Winston, 2009; Kazak et al., 2006; Salmon & Bryant, 2002). The role of the family in posttrauma recovery in children has been largely conceptualized as parental symptomatology. In our view, it will be important to include family functioning, parental modeling of coping, and facilitating the regulation of emotion in children more often (Alisic, Boeije, Jongmans, & Kleber, in press; Meiser-Stedman, Smith, Glucksman, Yule, & Dalgleish, 2008; Salmon & Bryant, 2002). It would be helpful to know more about the way parents promote (or push) certain coping styles in their children. Cuddly toys, finally, appeared with surprising frequency as sources of comfort. Several theories have been developed about children's attachment to transitional objects and imaginary companions (Taylor, 1999, Winnicott, 1953). An explanation of the importance of cuddly toys after severe stressors may be their capacity to provide support when parents or significant others are not available. Our findings suggest that the growing practice of giving a child a cuddly toy during emergency situations is beneficial.

Coping figured far more strongly in the children's narratives than in the empirical literature on child trauma. Our findings do not confirm the two-factor framework described by Lazarus and Folkman (1984) but point to a multifactor model. Our categorization comes close to results from a factor-analytic study (Ayers, Sandler, West, & Roosa, 1996) in a general (i.e., not trauma-focused) sample of children. It revealed the factors distraction ("concentrating on the normal and the positive" in our categorization), avoidance ("avoiding risks and reminders"), active coping ("working through trauma"), and social support ("seeking social support"). It will be necessary to replicate our multifactor model in future studies with children exposed to trauma.

We found a wide range of coping behaviors in a sample of children who virtually all felt they were doing well again. Each way of dealing with trauma might have its own function in helping a child to come to terms with it. Given that the one child who did not feel that he was recovering showed only a few coping behaviors, one could surmise that having a whole repertoire of coping behaviors would be helpful. However, the only study carried out on this topic (Stallard, Velleman, Langsford, & Baldwin, 2001) found that children with PTSD at 8 months after trauma had reported more coping strategies at 6 weeks than children without PTSD at 8 months, suggesting a relationship in the opposite direction. We propose further testing of the hypothesis that children with a larger repertoire of coping behaviors will show a better recovery to better understand these processes.

Even though an overall picture emerged, we encountered many variations in the specific stories, distress symptoms, and coping efforts of the children. The children's degree of elaboration in the interviews on what happened, the emotions they had felt, and the degree of reflexivity on how they dealt with the trauma also varied considerably. Though researchers

generally aim to discern the main lines of behavior and attitudes, these individual differences should still be recognized.

Based on the above, more research is needed on means to support children in their struggle with shattered assumptions, ways of fostering positive experiences, the role of friends and family members, and (the effectiveness of) different posttrauma coping styles. This will enable testing and elaborating on our preliminary proposals to adjust current adult trauma theories. The study findings also have preliminary practical implications for working with children in prevention or treatment contexts after trauma. Although they may seem "intuitive," they deserve more explicit attention. First, the impact of secondary stressors should not be underestimated, and subjective appraisals of these stressors should be taken into account in clinical assessments. Second, as social support turned out to be very important to the children, facilitating support needs to become a more extensive standard element of prevention or intervention programs. Tuning in to the child's world in this respect might involve cuddly toys and tangible signs of support from friends. Currently, most literature about interventions directly after trauma argues against debriefing, as this has been shown to have no or even detrimental effect in adults (Bisson, McFarlane, Rose, Ruzek, & Watson, 2009), but little is written about other direct interventions, such as to enhance social support. Third, children show a wide variety of coping styles. Because there is not one best style identified yet, individual coping styles need to be acknowledged and assessed; they can form helpful starting points in conversations with children exposed to trauma.

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