Work with Traumatized Children — Psychological Effects and Coping Strategies

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Work with traumatized children has a profound effect on emergency personnel and other health care providers. It is hypothesized that work with seriously ill or injured children potentiates motivating factors in the helper's personality, brakes down natural defenses and leads to strong identification with the victims. In this paper various psychological effects on the rescuer are outlined. Coping strategies used by health care personnel in the acute phase of an emergency are identified. Mental preparation, suppression of emotions, distancing from certain aspects of the event, and dehumanizing were frequently utilized coping strategies. Other coping mechanisms were regulating the amount of exposure, activities to restrict reflection, developing a sense of purpose, and self-reassuring comments. Postexposure response to child trauma include helplessness, fear and anxiety, existential insecurity, rage, sorrow and grief, intrusive images, self-reproach, shame and guilt, and changes in values. Emotional distancing and other self-protective strategies seem important at the scene; self-disclosure by talking about impressions and reactions is most helpful afterwards. However, carefully timed and executed interventions are necessary to break through the defensive barriers which are established by health care and other emergency personnel.

KEY WORDS: emergency personnel; emotional reactions; traumatized children, coping strategies.

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INTRODUCTION

When emergency personnel (police, fire fighters, paramedics, and emergency nurses) and those involved in more long term care such as hospital staff members, are asked about the worst events they experience in their work, there is a unanimous response — death or serious trauma to children (Mitchell, 1984; Vachon, 1987). When children are involved in disaster situations, powerful emotional responses can be expected from the helpers (Rayner, 1958; Hershisher and Quarantelli, 1976; Jones, 1985). Seeing the bodies of dead children leads to significant emotional distress even in the most experienced helpers. But even in more routine work in hospitals, dealing with traumatized children intensifies stress on the worker.

Although professional relationships with traumatized children may vary considerably from the rescue personnels' rather short interactions with the children, to the more extended contact hospital staff experience, the potential for intense emotional reactions as a consequence of the professional relationships with injured children is considerable.

This article will discuss the coping response of helping personnel when working with traumatized children. Reactions to such work will be outlined, and the various coping techniques used at the scene will be presented. Examples from a recent bus disaster in Norway will be presented to illustrate some of the dynamics involved in work with injured children. The material will be presented in a descriptive style, since this article is a first step in defining important mechanisms at work.

The bus disaster occurred in a steep, remote valley in Norway in August 1988. A tour bus with 34 people on board crashed into a tunnel while it was descending the steep road. Twelve Swedish children and three adults were killed. Many children and several adults sustained injuries. Rescuers and health personnel from nearby villages responded, and carried out the rescue work. It took several hours to extricate both the injured and dead form the wreckage. Cutting tools had to be used to cut through thick metal to free people

Emergency personnel were offered psychological debriefing sessions during the week following the accident. Follow-up debriefings were also provided 3 weeks after the event. The participants in the debriefing sessions included all on-scene responders except those assigned to the helicopters and the private citizens who volunteered to help ($N = 85$). Those who participated in the debriefing were administered a questionnaire 1 month following the crash. The questionnaire contained demographic questions, questions concerning prior experience and their work role during the disaster, and questions concerning their immediate reactions and reactions during the first weeks following the disaster work. In addition an open-

Table I. Coping Mechanisms (in percentages, $N = 50$)

Did You Experience	1^a	2	3	4
that you tried to think of practical tasks?	0	6	22	72
that the contact among the helpers was important?	2	8	26	64
that you tried to shut out thoughts and feelings while you worked?	6	18	36	40
that everything seemed unreal while it lasted?	10	22	30	38
that you only concentrated on your tasks and avoided thinking about the ramifications of the events?	2	30	38	30
that you tried to mentally prepare yourself for what you would meet?	10	27	25	38
that you said to yourself that you were trained for this, that you could handle it, and so forth?	28	24	36	12
that you tried to shield yourself from unnecessary impressions?	20	42	20	18
that you did your work in order to spare other workers?	48	26	18	8
that you said to yourself that you did the work for somebody (i.e., the bereaved)?	58	22	18	2
that humor was used to carry out the work?	60	24	14	2

[a] 1, Not at all; 2, Somewhat; 3, Moderately so; 4, Very much so.

ended question about "what they thought or did to carry out the difficult work" was included. The response rate was 67% ($N = 57$). The citations in this paper were drawn from the questionnaire. Information gathered through contact with those in the debriefing sessions, was used as background material for this article. However, the identity of those providing information has been protected to preserve confidentiality. One year following the bus disaster the same group was sent a questionnaire to see how they fared. Based on their answers to the open-ended question about what they thought or did to carry out the difficult work, a list of 12 coping strategies were developed. The participants were then asked to indicate to which degree they had used these different coping strategies ($N = 50$, response rate 59%).

ON-SCENE COPING MECHANISMS

When personnel have to deal with traumatized or dead children in the acute phase of an emergency or disaster they make use of different coping strategies. Some of the frequent on-scene coping strategies used by rescuers and health care personnel in the bus disaster is depicted in Table I.

The most frequent strategy used by the rescue personnel was using *activity to restrict reflection.* Almost all (94%) acknowledged this mechanism. (The percentage of responders in the categories "moderately so" and "very much so" was combined in this and the following percentages.) Activity made it possible to keep feelings and thoughts about what they experienced to a minimum:

> I did not have time to think about what I saw, I was so busy doing my job. The thoughts came afterwards. I tried to think about the practical tasks.

When an emergency worker knew what to do, had something to do, and set about doing it, he/she was able to refrain from thinking about the emotional dimensions surrounding the event. During waiting periods, or when something interfered with his/her rescue activity, this mechanism more easily broke down. It is not uncommon to hear disaster workers say that the worst experience during a disaster is to wait. Waiting leaves time for reflection and thought and intensifies the potential to be overcome by one's emotions. It is important to emphasize that although several of these efforts or methods are relevant and effective for maintaining emotional balance for the short term, they may jeopardize overall emotional recovery if used excessively or for a prolonged period.

Contact with others or social support built morale and comradeship within the group and was reported by 90% of the sample. It was a buffer against the stressors impinging on the worker:

> During my work I received a pat on my shoulder form a physician in the air ambulance. That was an acknowledgement of my work, and a great inspiration for me.
> I used every opportunity to talk with other helpers.

Unfortunately, little deliberate use is usually made of this resource. If it were developed, it could lessen the negative effects of stressful exposure.

Many helpers consciously *suppressed their emotions* while dealing with the traumatized children (76%):

> During the work I shut out all feelings.

A sense of *unreality* is part of the shock reaction that assures a rapid emotional inoculation when people face extreme events (68%). Helpers as well as primary victims describe such reactions. Although it is not a conscious and deliberately used coping method, it helps to keep emotional reactions at a distance and to focus one's concentration and energy on more important tasks. The bus disaster rescuers commented on how this feeling of unreality helped them dealing with the situation:

> I was in a kind of shock state while I worked, and it helped me.

> I lived in an unreal world. I felt like I was an actor in a movie.

Active avoidance of thinking about the ramifications of the event was evident (68%). When handling mutilated bodies, the need for emotional detachment may require that the helpers also use distancing and dehumanizing as part of their efforts to cope.

> I had to attain a detached stance. Not think that they were children or human beings with families.

To achieve emotional distance when handling dead children, body parts and other human remains, some rescuers had to perceive the children as training manikins:

> I felt it was so strange that they had brought resuscitation manikins with them on the journey.

Mental preparation includes a review of what is known before entering the scene, a discussion with colleagues on how to deal with the situation, an internal preparation for one's own role, and a mental preparation for the emotional components which may be encountered. A lack of mental preparation on the part of public safety and health care personnel make them much more vulnerable to emotional upheaval. When rescuers responded to the scene of the bus-disaster, they at first had no idea that children were involved. Their fantasies revolved around a bus with elderly people, the kind of tour buses which frequent that area at the time of year when the accident happened.

> I prepared for meeting elderly tourists, and I reviewed how and where the accident had happened to think through how to handle the work.

More than half the group (63%) had tried to mentally prepare for the work, although they entered this situation without knowing that children were involved.

Knowing what to do, and the ability to make internal comments which reassured oneself about one's capacity or knowledge helped moral and enhanced performance (48%). Examples of such *self-assuring comments* were:

> I tried not to think about the extent of the disaster, but about what I could do to help.
> I thought about (rehearsed) what I had learned at the disaster course.

Helpers also coped by *regulating the amount of exposure* to stressors (38%). This was achieved in different ways. For example, they actively *refrained from getting information* they knew could interfere with their functions at the scene:

> I did not look at the dead children, as I knew this would interfere with my primary tasks.

Another method of regulation was *focusing on some (central) tasks*:

I tried to avoid what happened around me and concentrated on one passenger.

Distraction was also used:

I thought about my work in the garden at home.

In the atmosphere of meaninglessness that helpers faced when dealing with dead or traumatized children, it seemed particularly important that their work had a purpose. They did it to spare other helpers (24%):

If I didn't do the job, somebody else with less experience would have to do it.

There was also the purpose of doing it for somebody, or with a specific aim (20):

It was a challenge to work fast and correct without hurting the children more.

The use of humor was only acknowledged by 16%.

REACTIONS TO THE EXPOSURE TO TRAUMATIZED CHILDREN

Although some helpers experienced reactions at the scene, most reactions developed in the time following disengagement form the disaster work. Among the common reactions were:

Helplessness

Rescue and health care personnel are eager to help; they are action oriented and like to be in control. When working with the traumatized children, they felt helpless, knowing there was little they could do to alter the situation. They felt overwhelmed by the trauma affecting innocent children, and felt there was little they could do to console survivors. As many as 67% of the helpers who responded to the bus-disaster acknowledged feelings of helplessness at not being able to do more at the scene ("moderately so" or "very much").

Fear and Anxiety

The most important result of exposure to traumatized children is an alteration of the helper's sense of vulnerability and security regarding their own children or other children they love. This will be outlined in some detail. Most people have an inclination to think that awful things will hap-

pen to others and not to themselves. This illusion of invulnerability (Janis, 1969; Janoff-Bulman and Frieze, 1983; Scheppele and Bart, 1983) is a defense strategy that results in a sense of control. When a person is exposed to an extremely stressful event, there is a breakdown of this illusion and an increase of intense feelings of vulnerability and fear that something similar to what one has encountered will happen to oneself or to one's loved ones.

Following the bus disaster almost three fourths of the on-scene personnel had, to some degree, experienced anxiety for their loved ones in the month following the disaster. Their increased vulnerability led them to increased surveillance and overprotection of their children:

> I have felt very insecure when sending my own children by bus after the accident.
> I find myself nagging my children about being careful in the traffic.
> I have become very afraid for my own children. At times this has created sleep disturbances for me.

An understanding of the issue of personal vulnerability is currently incomplete. Further research is needed before its impact is fully appreciated and before appropriate counseling strategies can be developed to assist the troubled emergency worker or health care provider.

In the Critical Incident Stress Debriefing sessions (CISD) held after the tragedy, many emergency personnel commented on their need to visit their children's bedroom after bedtime just to look at them. They had a great need to be there with them, or to hold them in their arms and hug them.

Existential Insecurity

More than any situation, pediatric trauma and death triggers thoughts about life's meaninglessness and unfairness. It is a direct insult to a helper's assumption of an orderly and just world. Since children are unable to protect themselves, their suffering is seen as unjust and unfair. When children die as a result of illness or trauma and when they are murdered, the sequence of life is distorted. Children are supposed to outlive their parents, and their deaths shake a basic assumption about life. As a Red Cross worker stated following the bus disaster: "They died at the wrong end of life." Some helpers may question the meaning of life in a manner similar to that of bereaved parents. McCammon *et al.* (1988) have shown that the search for meaning is an important coping strategy among disaster workers. The death of a child makes it difficult to find a successful cognitive framework around which the disaster can be integrated into one's life experience. This circumstance poses a threat to successful coping.

Rage

Children's trauma is often directly caused by adults. Helpers can express feelings of rage and anger toward those seen as responsible. When there is daily exposure to traumatized children, helpers may experience changes in their values regarding parents and adults. Public safety and health care professionals grow more critical, intolerant and less trustful of others. Another more gradual change related to this is an increase in irritability toward others. While listening to people talk about trivial things such as having a cold, lack of sleep, or the stress of having small children, rescue personnel who dealt with the bus disaster felt annoyed or irritated that such details and trivial circumstances could upset anyone. Unfortunately their anger was sometimes taken out on their closest family members.

Sorrow and Grief

Sorrow and grief is commonly experienced in the helping professions following the death of a child. This is especially so when there has been a long caring relationship. Behnke et al. (1987) found reactions similar to grief responses experienced after the death of a loved one, in pediatric house officers following a child patient's death. As is the case with bereaved parents (cf. Dyregrov and Matthiesen, 1987), female physicians reacted more than males. It may be possible to grow accustomed to deaths of adults, but the death of a child almost always triggers sadness, frustration and helplessness.

It is not uncommon for helpers to start crying when they return home from a critical event involving children. In the bus disaster, several commented on how their tears came when they saw their own children:

> The full extent of what I had experienced came the day after the bus disaster when I returned to my wife and children. Then I started crying.

Sometimes helpers openly react at the scene of a child's death. Their fellow workers do not see such an open display of emotions as unusual, since it seems more acceptable when children are the victims.

Intrusive Images

Intrusive images seem to be more easily formed in those who work with traumatized or dead children. When helpers are asked what traumatic event they most vividly remember from their professional career, they are

likely to describe events that include children (cf. Mitchell, 1984). The mental images from the bus disaster was formed in all sensory modalities, although the visual mode seemed to be the dominant mode:

> Gradually the color of his skin changed. I could see he was dying. He died in my hands.
> We carried two dead children in our ambulance. From one of the stretchers a leg with a yellow sock was visible. Now I see yellow socks everywhere.
> The size of the shoes was what got to me. The sight returns to me, and I keep thinking about my own child who uses the same shoe size.
> I still feel the curly hair of a small dead child in *my* hands.

Even the absence of an impression or a stimulus took an intrusive form:

> The stretchers were so light (comment from a helper who had carried dead children away from the disaster scene).

Self-Reproach, Shame, and Guilt

Self-reproach, shame, and guilt are reactions that can be potentiated when children are involved as victims. Emergency and other helpers ruminate about what more could have been done, what could have been done differently, or how they could have been more effective in the performance of their duties.

Change in Values

Positive consequences can also result from working with traumatized children. Many helpers experience a change in values after working in such situations. Following the bus disaster more than one third of the helpers acknowledged a change in life's meaning following the disaster. At the one year follow-up, almost 45% acknowledged that life had changed it's meaning. They had come to a greater sense of appreciation and care for their loved ones, particularly children. They appreciated life itself more, they felt that life was more intense, and they felt awe at people's strengths. These findings are similar to those described in the work of Raphael *et al.* (1980).

DISCUSSION

There are several factors which, alone or in combination, may explain why traumatized children have such a profound effect on helpers.

Working with traumatized children *potentiates motivating forces in the helper's personality*. Although we have few formal studies on the personality of helpers, there seems to be certain personality factors which are easy to observe. They are often mentioned as common features in various groups of helpers. Helpers are concerned, compassionate, dedicated and committed. They also have a great desire to be helpful to others (cf. Raphael, 1981). The helper is frequently driven by a sense of intense personal arousal and involvement. They are aggressive in their efforts to ease the distress of others. These motivating forces seem to be more intense when the rescuers are working with a group of victims who are considered innocent and unable to protect themselves. Children of course are in the innocent category, and work with them may create a drive for an extreme level of personal involvement in the situation. Unfortunately this may cause helpers to put aside concern for their own welfare and they may work beyond the point of exhaustion.

The results from this study show that emergency personnel relied heavily on different distancing methods to regulate the emotional intensity. When emotional distancing cannot be used it can lead to *breakdown of natural defenses*. This is most evident in the acute setting, such as the emergency department or critical care unit, where helpers often describe strong emotional reactions when children are the patients. In disaster areas, emergency personnel often report that they function adequately until they come upon a child's body or even a child's toy. From that moment, on, they function less effectively or, at times, not at all.

This breakdown of natural defenses interacts with another psychological dynamic which is frequently experienced by health care, law enforcement and rescue personnel. This is the *identification with the victim* or the victim's family. Identification with the victim is exceptionally strong when the helping relationship involves children. Helping personnel have different relations to children in their personnel lives. They are parents, siblings, grandparents, uncles, aunts, and so forth. They easily imagine how the trauma could have happened to one of their own loved ones. Since most helpers worry occasionally that something disastrous could happen to the children they love, they can easily and vividly replace the traumatized or dead child with the image of their own beloved children. One rescuer in the Norwegian bus crash stated:

> I have a son the same age as the children involved. I have followed him on a bus-trip. The impression of happy children on a holiday instantly triggered thoughts about my own son. It became so intensely close and real to me.

Those who care for children in their work were once children themselves, and they remember feelings of childhood anxiety and vulnerability. On a more or less conscious level, all people remember anxieties and fears from their

childhood. The most distressing fears were of separation and loss, and the feelings of helplessness which accompany those fears. Layers of the helper's own memories may thus interfere with or influence the helping relationship, and make it easy to identify with the traumatized child's anxieties and fears. Sometimes a person's own attachment history will bring him or her into role conflicts, and the helper adopts roles as surrogate parents or siblings, rather than helpers. This danger is most pronounced in long-term caring relationships. The reawakening of basic anxieties and fears may also influence relationships with one's own children. Work with traumatized and dead children requires specific coping behaviors and seems to affect helpers more than other trauma situations. Although helpers usually are capable of carrying out their functions at a disaster or accident scene, and then react emotionally after disengagement from the scene, situations in which children are involved have a greater capacity to trigger on-scene emotional reactions.

The mechanisms described in this paper highlight how helpers use emotional distancing and activity to modulate their processing of the event in order not to be overwhelmed by the emotional consequences of the situation. At the disaster scene it seems most important to keep up an emotional distance from the event. If this distance is reduced, either by reflection triggered by symbolic stimuli, questions from the injured, or identification with the victim, the helpers can experience an emotional flooding which may threaten their functional capacity. As long as they continue to be active, have concrete tasks to perform, and are able to keep the emotional ramifications of the event at a distance, they are able to perform effectively.

Although the sense of unreality experienced by emergency personnel at the scene, coupled with their almost automatic rescue activity promotes emotional distancing, helpers also use more deliberate cognitive efforts to keep from thinking about the human consequences of the event. Self-enhancing comments, active suppression of thoughts, and refraining from exposure to upsetting impressions or information are typical selfprotective strategies.

The infrequent use of humor was somewhat surprising. Alexander and Wells (1990) found that as many as 98% of police mortuary workers found humor "helpful" or "very helpful" during their work at the mortuary following the Piper Alpha oil installation disaster. Hetherington and Guppy (1990) similarly found that 93% of road patrol officers used humor when facing road traffic accidents. Humor was found to be the most adhered to strategy. Humor seems less useful when children are involved. The presence of survivors and bystanders may have added to the suppression of humor in the bus disaster. Lastly, the group consists of helpers from different responding groups, not solely the police.

Although humor was an infrequent response in the bus disaster situa-

tion, it should be recognized as a normal and helpful method to reduce tension, keep emotional distance, and build group cohesion and morale when performing arduous tasks.

The coping measures reported by emergency personnel in this study are probably not restricted to situations involving children, but are also used by helpers in other extremely stressful situations. Further research is needed to delineate in what situations they are used, and to determine to what extent they can be taught to helpers in advance. Further research would also be helpful in identifying which mechanisms are most important for long-term coping.

The majority of the disaster workers commented that talking to others about their experience following the event was helpful. One's colleagues were mentioned as the most important group to share one's impressions, reactions, and opinions. Clinical experience gained from providing follow-up debriefings for disaster workers in this and other accident and disaster situations highlights the need for confronting the event following the disaster work. While distancing is most helpful at the scene, the reverse seems to be most helpful afterwards. By actively confronting one's impressions and reactions through meetings and conversations with colleagues and others, the helper is able to manage the after-effects of trauma work in the best possible manner. A Critical Incident Stress Debriefing, as a routine part of follow-up with traumatized helpers, especially those who have worked with ill or dead children and other severe situations, will provide helpers with a structured way of talking through their experience (Dyregrov, 1989; Mitchell, 1983).

One clinical application developed by listening to emergency personnel is that the structured talk through or debriefing should not be carried out on the day of the event or the day one finishes the work. During these times, many helpers still function in the emotionally distanced mode. They need some time to let the emotional ramifications of the event become apparent to them. More poetically speaking, they need to change from reacting with their brain to reacting with both brain and heart. They need time to reflect on what they have experienced. Usually, after they are disengaged from the scene, they begin to process the event in a different manner.

Emergency personnel should be given individual support until the formal debriefing is arranged. By means of this brief delay in instituting assistance, the special needs of emergency personnel and the manner in which they react to and process tragic events are taken into account.

There is no doubt that the information presented herein needs further study before firm conclusions regarding their usefulness in other situations can be drawn. Hopefully the reported observations will be useful in planning more formal research in this newly developing field of knowledge.

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