

Who Can Help Us? –First Responders under Pressure

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Abstract

Secondary reactions to stress and how first responders process their own issues following the aftermath of a disaster/emergency event are often overlooked aspects of traumatic events. Those who interact with trauma victims or survivors are themselves exposed to a form of stress, a fact that may go unrecognized for some time after a traumatic event. While trauma survivors are exposed to a primary trauma and the accompanying traumatic stress, secondary responders are exposed to the trauma survivor and the results of their injuries, thereby potentially acquiring their own traumatic stress reaction. The ways in which helpers and first responders are affected may not be obvious because the symptoms are not recognized for what they are and the reaction may not be immediate.

The professional helper's experience is generally confined to secondary exposure. Exceptions include disasters, terrorism attacks, or other emergency events where helpers may be on the scene during a disaster or while victims are still being rescued. It is important that educators, healthcare providers, and community resource personnel understand the importance of secondary stress and be prepared to offer assistance, not only to victims and survivors but also to those who provide first response and their families.

Key Words: PTSD, Post-Traumatic Stress Disorder, Secondary Stress, Critical Incident Stress Debriefing

Introduction

Any event that occurs to human beings can be compared to a stone that is dropped into a pool of water; it sometimes slips quietly beneath the surface, causing few waves as it sinks. The waves can continue for a very long time and ultimately impact upon every molecule of water in the pool. Sometimes waves are created that are so large that they can be seen long afterward and the interaction of the waves upon each other can be seen to sometimes produce unexpected results. Whether memories of positive or pleasurable events that are a source of comfort and reassurance, or negative or traumatic events that are a reoccurring source of discomfort or pain, the results have far reaching consequences.

Since the early days of post-disaster response research, the field of disasters and hazards has expanded to investigate a wide range of areas, including pre-disaster conditions, mitigation, planning,

response, and evaluation (Drabek, 1986). Of importance to social service personnel in particular and to families in general are the ongoing consequences of traumatic life events. If preparation is the key to protecting the health and safety of emergency responders, it is important that past experiences are studied (Jackson et al, 2001).

Traumatic events can cause a practically infinite number of responses within people. Responses to traumatic events can have a distinct cultural component within its composition in addition to the visceral reaction that human beings in general experience. Within this cultural context is embedded the experiences of the individual and the collective tradition of that person's culture. Even extreme events such as murder, rape, incest, and war can have vastly different personal interpretations and traumatizing potential. Although the context may change, every society has its distinct set of abhorrent events whose effects can last long after the event has passed and affect others who are far removed from the specific traumatic event. It is important for healthcare systems seek to understand the broader context in which these events occur" (Seynaeve et al., 2004).

Repeatedly warned and advised to prepare for the unthinkable, a disaster, a traumatic event, an emergency, etc. few people listen to the advice given by federal and state disaster emergency planning agencies to plan ahead and practice. Even the basic guidelines set forth by the Illinois Department of Public Health (2004), that urge citizens to develop emergency evacuation and response drills with all household members and practice them at least twice a year does not mention how to respond to family members, friends, or neighbors who have experienced trauma. So, the duration and impact of the event is seen as an event beyond our control that we have not prepared for. It is dependent upon several factors, some of which are our variability in psychological resiliency and capacity to assimilate experiences based upon individual personal resources that are available. The resilient "shock absorbers" that human beings have include their inner resources; formal support systems such as counselors, medical, or clerical helpers; but often most relied upon are our natural social support systems, our families and friends, the people who help provide us with meaning to life events. Once our coping mechanisms and our resources are no longer effective, the ripple of trauma continues on.

Most natural social support systems such as families, friends, and acquaintances are generally unprepared to meet the intense reactions that people continue to experience due to traumatizing events. Once these resources are stretched to the breaking point because of chronic fatigue, a new phenomenon occurs, a secondary traumatic stress event begins to form new waves of distress in others that build until it spills over into their relations with other people, resulting in their own ability to cope diminished.

The term secondary PTSD (post traumatic stress disorder) is used to describe this phenomenon that is endemic to the modern world. Although most often used to describe professional people who render aid to trauma victims as part of their job, it is also relevant to the impact felt by significant others of trauma victim workers. Though unclear in exact definition because of its many forms, there is general acknowledgement within the field of traumatology that those who interact with trauma survivors experience a form of secondary stress. Although the Diagnostic and Statistical Manual IV-TR, (American Psychiatric Association, 2000)) only includes a definition of a stressor event that includes learning of a trauma occurring to a loved one. There are many other scales used to describe and diagnose this condition, along with a variety of techniques that have been used successfully to treat this condition.

Methodology

The development of primary trauma symptoms (Catherall, 2004) has essentially shaped the literature on secondary exposure. The Diagnostic and Statistical Manual IV-TR (American Psychiatric Association, 2000) describes several necessary components for post-traumatic stress disorder. A fundamental difference concerning secondary stress is found within the first criteria where it is stated:

- A. The person has been exposed to a traumatic event in which both of the following were present:
- 1) The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.
 - 2) The person's response involved intense fear, helplessness, or horror. Note: In children, this may be expressed instead by disorganized or agitated behavior.

In recognition of those cases seen where the particular individual was not directly confronted or present at the traumatizing

event, many terms have been used to describe the other various types of trauma-related stress that do not qualify for the official PTSD diagnosis because the exposure was secondary rather than direct. Sometimes called Secondary Traumatic Stress Disorder (STSD), vicarious traumatization, compassion fatigue or empathic strain, (Catherall, 2002) the definition is used so broadly among such a wide array of situations that it often does not adequately describe the condition. Catherall (2002) goes on to state that "although it is not yet clear how often secondary exposure leads to the development of trauma symptoms, it is probably safe to say that it is fairly infrequent that secondary exposure produces the complete PTSD syndrome". However, this does not mean that this does not happen nor diminish the seriousness of cases where professionals experience stressful conditions that do not meet the PTSD criteria.

The ways in which professional helpers are affected may not be as obvious only because we don't think of them as symptoms (Catherall, 2002). We each have our own way of de-escalating from stressful situations--because we all are trying to do the same thing, calm our aroused nervous system. It is apparent when we're on the scene of a disaster but maybe not so obvious when we have "only" been counseling the victims of the disaster, particularly after the disaster is long past. But if we are still working with people who are still processing their experiences (maybe still dealing with primary traumatic stress), then it's likely that we too have maintained a state of abnormal arousal. Catherall (2002) describes three ways that exposure to trauma victims can cause destructive stress for professional workers:

- 1) The Knowledge of What Can Happen-our world view is shattered, never to be whole again.
- 2) Losing Our Sense of Perspective-, we are forced to give up our protective sense of denial and face the potential realities of life.
- 3) The Emotional Impact of Trauma Work- we feel emotionally drained even as we experience a heightened level of physiological arousal. Then, just as with trauma survivors themselves, helpers can reach a state in which they are exhausted yet can't slow down our physiology. At such times, they are more vulnerable to the distressing thoughts and

perceptions that can come from working with people whose sense of living in a safe and predictable world has been shattered.

Although often discounted as less serious, secondary exposure can lead to an extreme reaction, such as the development of the full PTSD syndrome, or it can lead to a less clearly symptomatic but chronic condition in which our life begins to change in unhealthy ways. This can be true for helpers whether they (a) deal with the immediate traumatic situation as first responders, etc, (b) work in the immediate crisis area, or (c) are removed from the primary traumatic situation and experience the event vicariously from others.

Fortunately, professional helpers have more resources than the average person. We have our knowledge of how trauma affects people. We also know how people learn and unlearn information. According to Huitt (2003) it is absolutely critical that learners attend to information in the initial stage of learning and they are more likely to do so if the stimulus has an interesting feature. In the case of stress recovery, focus upon the issue is assured. We also have our skills for emotional de-escalation and processing states of distress. Also, we have each other, a support system with the potential to help each of us maintain perspective and find understanding; Critical incident debriefing is about the power of individuals helping each other in the aftermath of trauma.

Some of the more helpful tools that professional helpers have are the result of study into the very nature of stress itself. To name something is to begin to control it; to study it is to understand it and hopefully control it. Vella (2000) designed a model to facilitate adult learning planning that consists of four components, all necessary for any effective design of training for adult learners. Vella (2000) called their model "The Four I's" and the components are:

- 1) Inductive work- a learning task that connects learners with what they already know and with their unique context
- 2) Input- a learning task that invites them to examine new input (concepts, skills, or attitudes) i.e. the content of the course.
- 3) Implementation- a learning task that gets learners to do something directly with that new content, somehow implementing it
- 4) Integration- a learning task that integrates this new learning

into their life

The National Institute of Mental Health (2002) has developed the following definitions and suggestions based on their research into how to defuse the negative effects of stress and distress:

Definition of Stress

Stress is the nonspecific response of the body to pressures, responsibilities, and real or imaginary threats from the environment.

Stress or Distress?

The physical reaction of the body to stress is the same whether the stress is positive or negative. Stress can occur in either pleasant or unpleasant situations. Stress that is unpleasant or harmful can be called distress.

To Avoid Distress you should seek work or tasks that:

1. You are capable of doing.
2. You really enjoy.
3. Other people appreciate.

Physical Reactions to Stress

1. Alarm -recognition of the stressor, activation.
2. Resistance- repair from possible "damage."
3. Exhaustion- your body has run out of energy.

Coping with Stress

1. Work off stress.
2. Talk out your worries.
3. Learn to accept what you cannot change.
4. Avoid self-medication.
5. Get enough sleep and rest.
6. Balance work and recreation.
7. Do something for others.
8. Take one thing at a time.
9. Give in once in a while.
10. Make yourself available to others.

Common Reactions to Trauma

A traumatic experience produces emotional shock and this assault upon our psychology and physiology has variable results among people. Some individuals may have a strong reaction to a particular situation while another person may not react at all (Foa, E.B., et al).

Many changes after a trauma are normal. In fact, most people who directly experience a major trauma have severe problems in the immediate aftermath. Many people then feel much better within three months after the event, but others recover more slowly, and some do not recover enough without help. The American Red Cross identifies three stages of recovery for a community after a disaster and use them to help workers prepare for the accompanying emotions, the heroic stage (one week), the honeymoon stage (two to three months), and the disillusionment stage (three months to a year afterwards). Becoming more aware of the changes you've undergone since your trauma is the first step toward recovery.

Some of the most common problems (Foa, E.B., et al 2002) after a trauma are described below.

- 1) Fear and anxiety. Anxiety is a common and natural response to a dangerous situation. For many it lasts long after the trauma ended. This happens when views of the world and a sense of safety have changed. You may become anxious when you remember the trauma. But sometimes anxiety may come from out of the blue. Triggers or cues that can cause anxiety may include places, times of day, certain smells or noises, or any situation that reminds you of the trauma. As you begin to pay more attention to the times you feel afraid you can discover the triggers for your anxiety. In this way, you may learn that some of the out-of-the-blue anxiety is really triggered by things that remind you of your trauma.
- 2) Re-experiencing of the trauma. People who have been traumatized often re-experience the traumatic event. For example, you may have unwanted thoughts of the trauma, and find yourself unable to get rid of them. Some people have flashbacks, or very vivid images, as if the trauma is occurring again. Nightmares are also common. These symptoms occur because a traumatic experience is so shocking and so different from everyday experiences that you can't fit it into what you know about the world. So in order to understand what happened, your mind keeps bringing the memory back, as if to better digest it and fit it in.
- 3) Increased arousal is also a common response to trauma. This

includes feeling jumpy, jittery, shaky, being easily startled, and having trouble concentrating or sleeping. Continuous arousal can lead to impatience and irritability, especially if you're not getting enough sleep. The arousal reactions are due to the fight or flight response in your body. The fight or flight response is the way we protect ourselves against danger, and it occurs also in animals. When we protect ourselves from danger by fighting or running away, we need a lot more energy than usual, so our bodies pump out extra adrenaline to help us get the extra energy we need to survive.

People who have been traumatized often see the world as filled with danger, so their bodies are on constant alert, always ready to respond immediately to any attack. The problem is that increased arousal is useful in truly dangerous situations, such as if we find ourselves facing a tiger. But alertness becomes very uncomfortable when it continues for a long time even in safe situations. Another reaction to danger is to freeze, like the deer in the headlights, and this reaction can also occur during a trauma.

- 4) Avoidance is a common way of managing trauma-related pain. The most common is avoiding situations that remind you of the trauma, such as the place where it happened. Often situations that are less directly related to the trauma are also avoided, such as going out in the evening if the trauma occurred at night. Another way to reduce discomfort is trying to push away painful thoughts and feelings. This can lead to feelings of numbness, where you find it difficult to have both fearful and pleasant or loving feelings. Sometimes the painful thoughts or feelings may be so intense that your mind just blocks them out altogether, and you may not remember parts of the trauma.
- 5) Many people who have been traumatized feel angry and irritable. If you are not used to feeling angry this may seem scary as well. It may be especially confusing to feel angry at those who are closest to you. Sometimes people feel angry because of feeling irritable so often. Anger can also arise from a feeling that the world is not fair.
- 6) Trauma often leads to feelings of guilt and shame. Many people blame themselves for things they did or didn't do to

survive. For example, some assault survivors believe that they should have fought off an assailant, and blame themselves for the attack. Others feel that if they had not fought back they wouldn't have gotten hurt. You may feel ashamed because during the trauma you acted in ways that you would not otherwise have done. Sometimes, other people may blame you for the trauma. Feeling guilty about the trauma means that you are taking responsibility for what occurred. While this may make you feel somewhat more in control, it can also lead to feelings of helplessness and depression.

- 7) Grief and depression are also common reactions to trauma. This can include feeling down, sad, hopeless or despairing. You may cry more often. You may lose interest in people and activities you used to enjoy. You may also feel that plans you had for the future don't seem to matter anymore, or that life isn't worth living. These feelings can lead to thoughts of wishing you were dead, or doing something to hurt or kill yourself. Because the trauma has changed so much of how you see the world and yourself, it makes sense to feel sad and to grieve for what you lost because of the trauma.
- 8) Self-image and views of the world often become more negative after a trauma. You may tell yourself, "If I hadn't been so weak or stupid this wouldn't have happened to me. " Many people see themselves as more negative overall after the trauma ("I am a bad person and deserved this."). It is also very common to see others more negatively, and to feel that you can't trust anyone. If you used to think about the world as a safe place, the trauma may suddenly make you think that the world is very dangerous. If you had previous bad experiences, the trauma convinces you that the world is dangerous and others aren't to be trusted. These negative thoughts often make people feel they have been changed completely by the trauma. Relationships with others can become tense and it is difficult to become intimate with people as your trust decreases.
- 9) Sexual relationships may also suffer after a traumatic experience. Many people find it difficult to feel sexual or have sexual relationships. This is especially true for those who have been sexually assaulted, since in addition to the lack of trust,

sex itself is a reminder of the assault.

- 10) Some people increase their use of alcohol or other substances after a trauma. There is nothing wrong with responsible drinking, but if your use of alcohol or drugs changed as a result of your traumatic experience, it can slow down your recovery and cause problems of its own.

Many of the symptoms of traumatic stress happen simultaneously or may be sequenced; one thing leads to another, etc. Successful processing of emotional issues means that over time, reactions to stimuli, including thoughts or emotions, become weaker and more manageable. The Los Angeles Psychological Association (unknown) developed the following list of reactions to disasters for children, adolescents, and adults. From this general framework it is possible to develop general coping strategies to effectively reduce or eliminate the effects of trauma.

Typical reactions for children of all ages include:

1. Fears of future disasters.
2. Loss of interest in school.
3. Regressive behavior.
4. Sleep disturbance and night terrors.
5. Fears of natural events associated with the disaster.

Pre-School (Ages 1-5)

Typical responses in this age group include:

1. Thumb sucking.
2. Bedwetting.
3. Fears of the darkness or animals.
4. Clinging and separation anxiety.
5. Nightmares.
6. Loss of bladder or bowel control; constipation.
7. Speech difficulties (e.g. stammering).
8. Loss or increase in appetite.

Children in this age group are particularly vulnerable to the disruption of their previously secure world. Abandonment is a major fear in this age group and children who have lost family members or even pets or toys will need special reassurance.

Latency Age Children (Ages 6-12)

The latency age period of development represents a bridge between early dependence and the beginning of independence

struggles typical of adolescence. Children in this age group present a continuum of symptoms depending upon their developmental rate of maturation. At the younger ages, one could expect to see symptoms overlapping some of those that are characteristic of younger pre-school children. As children move towards adolescence, one might expect the emergence of some of the characteristic symptoms of the adolescent age group. Additionally, the typical reactions for all ages, described above, would be evident in this age group.

Adolescence (Ages 13 To 18)

Common responses in this age group include:

1. Psychosomatic symptoms (e.g. rashes, bowel problems).
2. Headaches and tension.
3. Appetite and sleep disturbance.
4. Agitation or decrease in energy level; apathy.
5. Decline in interest in opposite sex.
6. Decline in emancipatory struggles over parental control.

Table 1.
 Adults: Common Adult Responses to Stress

<p>Psychological and emotional</p> <ol style="list-style-type: none"> 1. Anxiety. 2. Irritability, restlessness, hyperactive excitability. 3. Feelings of depression, moodiness, periods of crying. 4. Anger, blaming. 5. Flashbacks or intrusive memories of event. 	<p>Physical</p> <ol style="list-style-type: none"> 1. Headaches. 2. Nausea, upset stomach, other gastrointestinal problems. 3. Exaggerated startle reaction. 4. Fatigues, tremors, pains in chest, numbness or tingling in parts of the body.
<p>Thought</p> <ol style="list-style-type: none"> 1. Poor concentration. 2. Mental confusion. 3. Slowness of thinking. 4. Loss of objectivity. 	<p>Behavior Hyperactivity.</p> <ol style="list-style-type: none"> 1. Outbursts of anger or frequent arguments. 2. Withdrawal, social isolation, “distancing”. 3. Avoidance of activities or places that arouse recollection of traumatic event. 4. Family problems.

Longer- Term Stress Management and Self-Care

Identification of typical behaviors exhibited by people experiencing primary or secondary stress is only helpful if successful coping strategies are developed to assist people in their recovery. Below is a listing of some of the types of normal stress reactions that can persist long after the initial crisis has passed and next to them are suggestions for coping with those reactions should they become problematic.

Table 2. Physical Reactions and Related Coping Strategies

Fatigue or Exhaustion	Continued balanced exercise and healthy diet; use both relaxing and vigorous exercises
Health Problems (Appetite, Headaches, etc.)	As above, but see a physician to rule out other possible causes.
Insomnia, Hypersomnia	Regular exercise, prepare for sleep, consult a therapist or physician for other coping possibilities.
Startle/Over-reactivity	Exercise to reduce physiological arousal level; possible depression or anxiety.

Table 3. Cognitive Reactions and Related Coping Strategies

Concentration Problems Decision-making Problems Memory Disturbance	Generally, intense emotions you may be avoiding can contribute to cognitive problems; consult a mental health provider if these persist. Find ways to open yourself to non-threatening emotions, such as laughter, artistic expression/experiences, and others. Also consider consulting a physician to rule out other possible causes.
Flashbacks Over-focusing on the Event	Find ways to openly discuss and process the aspects of the event you are re-experiencing. Often our minds intrude upon us with experiences that we are not addressing in other ways. Severe instance justify consulting a healthcare provider.
Emotional Reactions	Coping Strategies
Fear, Guilt, Anger, Over-sensitivity	As a general rule, addressing emotional responses that persist is best handled with active treatment. Strongly consider consulting with a mental health professional. Also continue using emotion-coping techniques that worked in the short-term.
Anxiety/worry, Depression, Helplessness	These emotions, when persistent, can become seriously impairing and even life-threatening. Consult with mental health professionals and physicians promptly.
Behavioral Reactions	Coping Strategies

Isolating Oneself	Reach out to others; join supportive organizations; increase contact with friends & family
Increased/decreased Activity	Self-monitor your activities, diet; consult healthcare providers
Alcohol/Drug Abuse	See a mental health provider promptly- don't let substance abuse become a second issue.
Anti-social Activities	These are often anger-related; find ways to effectively cope with anger.
Relationship Problems	Consider couples or family counseling; discuss the issues constructively with the people involved; explore the emotional issues contributing to the relationship issues.

Conclusion

Traumatic stress can be transferred from a primary event or through exposure to others who have experienced or witnessed traumatic events. A seemingly infinite array of potential symptoms may occur, many of them simultaneously. The presentation of symptoms may be characteristic of an individual's age-developmental stage, or may be more typical of an earlier age. Younger children seem to benefit most from rapid treatment to prevent the transition to problems that are more serious, while adults may need more time to prepare to process their experiences. The preferred method of approach for treatment is group therapy, facilitated by someone who is knowledgeable and credible with participants. In regard to professional adults, it is critical that the facilitator be someone who is known to have a high degree of commonality, i.e. another fire man working with a group of traumatized firemen, etc. When working with secondary stress victims, a level of credibility may be equally as important.

Implications for Practice

Preparedness is often cited as the key to successful management of disaster/emergency situations. Successful treatment for individuals with PTSD, secondary stress, or even families, friends, or colleagues of impacted individuals should begin with a plan in place that is known and practiced in implementation. Knowing in advance what to do in general will facilitate the process if it is ever needed. Resources for each age group and available educational materials could more rapidly meet emergent needs. In addition, there

is comfort and reassurance in the knowledge that a structure is in place to deal with these types of issues.

A minimal level of education about secondary stress should be included in all professional preparation. There is a significant difference between “burn out” and secondary stress problems. Once the physiological systems are aroused/activated and paired with psychological attributes that are distressful, people may require more than the usual “time out” or debriefing.

It is important for professional staff and others, who experience secondary trauma including families, friends, and colleagues, understand and believe that this is simply a part of life, a normal reaction to an abnormal situation, and that we can and do recover from experiences such as these.

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