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COPING WITH THE STRESS OF DISASTERS AND TERRORISM

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The catastrophic events of September 11 have caused concerns about an explosive increase in Post Traumatic Stress Disorder (PTSD). This would be most apt to occur in those who had survived or directly witnessed these destructive acts and others personally involved in subsequent rescue activities. Media and especially television coverage has been so graphic and continuous in the aftermath, that tens of millions of Americans and hundreds of millions elsewhere may also have these horrific scenes indelibly etched into their minds. Fears that these individuals might develop PTSD heightened as some reported flashbacks and other symptoms in the following two weeks.

Such experiences are not uncommon a few days or weeks after a traumatic event but they are rarely disabling and tend to disappear after a month or two.

ALSO INCLUDED IN THIS ISSUE

While certain stimuli can trigger a recurrence of symptoms later on, this is not really the same as PTSD and it is important to make this distinction.

PTSD has now become a buzzword to embrace all sorts of situations and feelings not anticipated when it was first classified as a psychiatric disorder in 1980. The current confusion stems from a lack of understanding of the criteria required to satisfy a diagnosis of PTSD. Although the disorder had been clearly described in ancient Greek and Roman accounts of warriors' reactions to traumatic battlefield experiences, it was not given a name until after its disturbing and often incapacitating signs and symptoms started to surface in a significant number of Vietnam veterans.

Since then, the term has been used to describe a similar syndrome seen in a wide range of civilian trauma survivors, including: victims of rape, torture, spousal or parental abuse; crime; aircraft, automobile and other vehicular accidents; technological disasters like Chernobyl; as well as earthquakes, hurricanes, tornadoes and other natural disasters. In addition, PTSD has now been extended to encompass those who are repeatedly exposed to life or death situations, such as EMT and rescue squad workers, police officers, fire fighters and

medical personnel on burn wards or in trauma units.

Refugees fleeing from sites of catastrophes and those frequently called upon to comfort or assist trauma victims may also be at increased risk. Some question whether combat soldiers, relief workers, abused children and other diverse groups all suffer from this same disorder.

What Do PTSD Patients Experience?

Some of the most common symptoms are:

- Sleep disturbances; insomnia, restlessness, nightmares and "night sweats"
- Flashbacks; unwanted memories of the trauma and related events
- Anxiety
- Emotional numbing
- Loss of interest in work or normal activities Suicidal thoughts or feelings
- Fantasies of retaliation
- Tendency to react under stress with survival mechanisms appropriate to the trauma (rape victims with flirtatious or seductive behavior, combat veterans with threats or aggressive acts)
- Feelings of alienation and problems with intimate relationships or even getting along with others
- Cynicism and distrust of authority figures and governmental and public institutions
- Hypersensitivity or overreaction to anything perceived as injustice
- Hyperalertness
- Survivor guilt
- Hyperventilation
- Overprotectiveness and a chronic or recurrent fear of losing others
- Social isolation or keeping an emotional distance from others
- Avoidance of any activity, person, place or symbol that might conceivably arouse memories of the traumatic event
- Thinking or reacting to situations with an "all or nothing" attitude rather than being reasonable
- Fear of the trauma returning
- Dissociation, trance states, denial, "out of body" experiences
- Difficulty in concentrating
- Memory problems
- Psychosomatic complaints
- Tendency to fits of rage or to passivity or alternating between the two

Mood swings are particularly common and can vacillate between opposite poles. What might be considered naivete or an "Everything will be O.K." and **an "All is well" attitude can suddenly turn to cynicism or paranoia**. Authorities suggest that the optimism reflects the subject's denial of the abuse or wish that it never happened, whereas the negative views are indicative of a vivid recognition of the abuse and a generalization of the cruelty of the abuser to others or life in general. There may also be feelings of worthlessness alternating with a feeling of being someone very special.

Family abuse survivors may engage in either self-punitive or self-indulgent behaviors to mimic an abuser's pattern of first punishing and then indulging the victim. Intense dependency can fluctuate with excessive caretaking for those who often function as the emotional, financial or sexual caretakers of their abusers.

PTSD sufferers are also more prone to alcohol and drug abuse; eating disorders like bulimia and anorexia; compulsive gambling and shopping; phobias; anxiety and panic attacks; depression; borderline personality disturbances; delinquent or criminal acts; homicidal, suicidal and self-mutilating behaviors.

Is PTSD A Modern Disorder?

While the name may be novel, PTSD has been described by historians, poets and doctors as far back as the ancient Greeks. Herodotus wrote that in the battle of Marathon in 490 B.C., an Athenian soldier who had sustained no injury became permanently blind after witnessing the sudden death of a comrade who had been standing next to him. Homer described typical PTSD complaints in Achilles and Agamemmnon, two heroes in his *Iliad*. Samuel Pepys, who chronicled the devastation of the great fire that consumed London in the 1600's, wrote that he and many other survivors continued to suffer from recurrent insomnia, anger, depression

and other PTSD complaints long after the event.

Probably the most compelling description is provided by Shakespeare in *Henry IV*. This is how Lady Percy described to her husband, Hotspur what she had observed, especially during his fitful attempts to sleep:

> Tell me, sweet lord, what is't that takes from thee
> Thy stomach, pleasure and thy golden sleep?
> Why dost thou bend thine eyes upon the earth,
> **And start so often when thou sit'st alone?**
> Why hast thou lost the fresh blood in thy cheeks;
> And given my treasures and my rights of thee
> To thick-eyed musing and cursed melancholy?
> **In thy faint slumbers I by thee have watch'd,**
> **And heard thee murmur tales of iron wars;**
> **Speak terms of manage to thy bounding steed;**
> **Cry 'Courage! to the field!' And thou hast talk'd**
> **Of sallies and retires, of trenches, tents,**
> **Of palisadoes, frontiers, parapets,**
> **Of basilisks, of cannon, culverin,**
> **Of prisoners' ransom and of soldiers slain,**
> **And all the currents of a heady fight.**
> **Thy spirit within thee hath been so at war**
> **And thus hath so bestirr'd thee in thy sleep,**
> **That beads of sweat have stood upon thy brow**
> **Like bubbles in a late-disturbed stream;**
> **And in thy face strange motions have appear'd,**
> **Such as we see when men restrain their breath**
> **On some great sudden hest. O, what portents are these?**
>
> *Henry IV*, Part 1 Act 2, Scene 3

It would be difficult to improve on this portrayal of depression, insomnia, and other characteristic PTSD signs and symptoms by the Bard of Avon.

In the early 1800's military doctors began diagnosing soldiers with "exhaustion" following the stress of battle. Since true soldiers were not supposed to be afraid or exhibit fear, the treatment for this condition was to bring those afflicted to the rear for a short period of time and then send them back into combat. This was probably the worst thing that could have been done since it led to a recurrence of symptoms that were more severe. Around the same time, there was a disorder in England, known as "railway spine" or "railway hysteria". This was seen in some victims of catastrophic accidents common in the early days of the steam engine who had PTSD complaints.

The first physician to recognize the syndrome was probably Jean-Martin Charcot, the nineteenth century French neurologist, best remembered for first describing multiple sclerosis (Charcot's triad), atrophic joint degeneration (Charcot's joint) and various features of muscular atrophy that also bear his name. He had observed that many individuals confined to mental institutions suffered from convulsions, paralysis, severe pain, amnesia and other complaints that did not appear to have any medical or neurologic cause.

This condition was referred to as "hysteria" since it occurred mostly in women, and ancient physicians like Galen had attributed it to a "wandering uterus" searching for fulfillment. To determine the source of these symptoms, Charcot put patients in a trance state using hypnosis in his world renowned Paris clinic. Many recounted histories of severe sexual and physical abuse as children that had caused them to run away from their abusers, only to be revictimized on the streets or in their new homes, so that they ultimately sought refuge in state mental institutions.

Charcot concluded that childhood trauma could cause hysteria and other PTSD symptoms and his research attracted the interest of other leading physicians like Sigmund Freud, who learned hypnosis in his clinic. Freud later developed the "talking cure" (psychoanalysis) to conduct in-depth interviews with traumatized patients and found that many of their complaints were due to sexual disturbances.

How The Diagnosis Of PTSD Evolved

During the American Civil War, combat psychiatric casualties were thought to be suffering from "nostalgia". This was considered to be a form of melancholy, depression, or even a mild type of insanity due to disappointment and longing to return home. In 1876, Dr. Mendez DaCosta published a paper diagnosing Civil War combat veterans with what he called "Soldier's Heart". Symptoms included a state of hypervigilance, startle responses, unexplained fatigue and disturbed heart rhythms. This was subsequently referred to as DaCosta's Syndrome or neurocirculatory asthenia in civilians who exhibited similar findings following a traumatic event.

The effects of battlefield trauma attracted enormous military and public concern during World War I. Large numbers of soldiers suffered from psychiatric breakdowns due to the vicissitudes of constant trench warfare, with its periodic hand to hand combat and artillery bombardment. PTSD symptoms were estimated to be responsible for the evacuation of 10 percent of American enlisted men. **"Shell shock", "battle fatigue" or "war neurosis", terms used to describe combat-related trauma, were reported to be responsible for almost 40 percent of British casualties.**

Many affected troops could no longer fight because they couldn't stop crying, their memory and concentration abilities were severely impaired, or they were so mentally and physically drained that they were "numb" and barely able to move or respond to commands. Most were quickly evacuated to hospitals back home because they were a severe drain on morale that could have quickly spread to other susceptible comrades.

In addition to this military embarrassment, there were also serious financial repercussions as disabled veterans were retired with lifetime pensions and provisions for perpetual medical care. As a consequence, elaborate efforts were made to screen individuals for combat during World War II in an effort to minimize the loss of combat personnel to what would be later called "Acute PTSD".

These prophylactic efforts failed miserably. It is estimated that at various points in World War II, over 300 percent more men suffered from PTSD symptoms compared to World War I. Military experts concluded that the personal or moral strength of the soldier was not as important a factor as the duration of exposure to combat situations. Since even the toughest troops could "break" under conditions of severe and or prolonged trauma, tours of duty during the Vietnam conflict were restricted to no more than thirteen months.

It was assumed or at least hoped that this relatively shorter period of exposure as well as the certain knowledge that a tour of battle duty was limited would reduce "combat fatigue" casualties. This approach also failed since **PTSD symptoms were recorded in well over a third of combat veterans returning from Vietnam, many of whom still suffer**. It was this experience that was responsible for recognizing PTSD as a distinct psychiatric disorder as well as legislation to compensate victims. Numerous World War II and Korean conflict veterans, who also experienced nightmares, anxiety attacks and other PTSD complaints but never received any recognition or reimbursement, are now also covered.

The official designation of "Post Traumatic Stress Disorder" did not come about until 1980 when the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM III) was published by the American Psychiatric Association. This DSM "bible" provides the "official" definition of all mental Illnesses; when it first appeared in 1952, what is now known as PTSD was called "stress response syndrome" due to "gross stress reaction". In the 1968 second edition, trauma-related disorders were classified together under "situational disorders". Vietnam veterans treated during that period were told that if their symptoms lasted more than 6 months after returning from Vietnam they had a "preexisting" condition that was not service connected. **Some believe that this error contributed to the unusually high rate of suicide in Vietnam veterans during the 1970's.**

Making The Diagnosis Of PTSD

It was not until the third edition of DSM-III in 1980 that the title "Post-traumatic Stress Disorder" appeared. It was included under a subcategory of "anxiety disorders" and was clearly designed to include not only combat veterans, but also victims of torture, rape, the Nazi Holocaust, the atomic bombings of Hiroshima and Nagasaki, natural disasters (earthquakes, hurricanes, tornadoes, volcanic eruptions, floods) and man-made disasters (factory explosions, airplane crashes, boating and automobile accidents).

Such traumatic events were clearly considered as being quite different than severe stresses that stem from the vicissitudes of daily life, like the death of a loved one, divorce, serious illness, or financial failure. Adverse psychological responses to these "ordinary stressors" were characterized as "Adjustment Disorders" rather than PTSD. This DSM III distinction between traumatic and other stressors was based on the assumption that most individuals can cope with stresses that everyone is apt to encounter but are likely to be overwhelmed when exposed to trauma outside the range of normal human experience.

In the current 1994 DSM-IV edition "Posttraumatic Stress Disorder" has been placed under a new "stress response" heading that is included under the "anxiety disorder" category. **Thus, what started out as a "syndrome" has now become a "disorder", and there is a significant difference between the denotation and connotation of these two terms.** Syndrome refers to "a group of signs and symptoms that collectively characterize or indicate a particular disease or abnormal condition". Disorder denotes some specific illness, so that PTSD has evolved from being part of a collective indicator to a definitive diagnosis.

This distinction is important because of laws providing financial aid and other benefits for PTSD patients. **Since the horrific September 11 events have caused concerns that we may experience a PTSD epidemic in children and others not directly involved, it is essential to understand the criteria for firmly establishing this diagnosis.**

The diagnosis of PTSD is characterized by six criteria that may be summarized as follows:

1. Having experienced at least one trauma or life-threatening event that had the potential for bodily harm and that the individual responded to with fear, helplessness or horror.
2. Continuing to relive the trauma in the form of what are called *reexperiencing phenomena*, which include nightmares, flashbacks and intrusive thoughts about the traumatic event.
3. Demonstrating persistent avoidance of situations reminiscent of the traumatic event and a numbing of emotions.
4. Showing persistent symptoms of physiological hyperarousal: startle response, irritability, difficulty falling asleep, hyperalertness and similar symptoms.
5. Evidence that criteria 2, 3, and 4 persisted for at least one month after the event.
6. Evidence that the traumatic event caused clinically significant distress or dysfunction in the individual's social, occupational and family functioning or other daily activities.

Items 3 and 4 may alternate in some individuals but each one of the above criteria must be present to some degree in order to substantiate the diagnosis of PTSD. Since most of these are subjective and based on self-report or could readily be faked by those who want to obtain permanent disability benefits, it may be difficult to obtain proof that an individual is malingering. Another thorny problem is determining what diagnosis best describes those claiming to be disabled from a traumatic event but unable to satisfy all these arbitrary criteria as well as what benefits they should receive.

Consequently, attempts have been made to identify objective biochemical and psychophysiologic measurements that might provide some clarification. As might be expected PTSD patients may have abnormal levels of hormones intimately involved in the response to stress. Thyroid function is often increased and some studies show lower cortisol levels and exaggerated sympathetic nervous system responses in long-term sufferers. Adrenaline, noradrenaline and

endorphin concentrations also tend to be higher than normal following the trauma but there are no consistent laboratory findings.

Who Is Most Likely To Develop PTSD?

The vast majority of people who directly experience a severe traumatic event do not subsequently suffer from PTSD. What determines the development of symptoms seems to depend on a combination of risk factors for the individual and the type of trauma experienced. Studies show that women are twice as likely to have lifetime PTSD than men despite less frequent exposure to life threatening situations. Although race and ethnicity do not seem to matter, social milieu may be a factor.

In one report, a history of psychiatric disturbances raised risk, particularly bipolar disorder or manic-depressive and mood swing tendencies, obsessive-compulsive traits and other personality problems. In another, a history of neuroticism and/or anxiety disorder was a significant predictor of PTSD. Significant behavioral disturbances before the age of 15 such as stealing, lying, truancy, vandalism or being abused are also associated with an increased incidence of PTSD.

The nature of trauma is also important; the five most frequent types reported being:

a) a threat or close call
b) witnessing someone getting killed or hurt
c) a significant physical attack
d) a catastrophic accident
e) very severe and stressful combat situations

In civilian studies, the trauma, most likely to cause PTSD was the unexpected death of a loved one, which occurred in almost a third. Documented rape was responsible for the highest rate (80 percent) of PTSD in women.

PTSD has been widely under diagnosed and treated in children and teens involved in automobile accidents. One study of over one hundred 3 to 18 year-olds revealed that 25 percent subsequently developed PTSD symptoms; less than half their parents ever sought professional advice or assistance for them. Curiously, there was no correlation with the severity of the accident. As the senior author noted, "Car crashes are so common that people take them for granted, but even kids in fender benders had nightmares, wouldn't walk home with friends, or get into a car."

PTSD is most apt to occur in:

1. Those who have been subjected to a greater magnitude or intensity of a traumatic stressor, especially if it was unexpected, unpredictable and uncontrollable. Aggravating factors include real or perceived responsibility for the event or the welfare of others, a sense of betrayal, and sexual (as opposed to nonsexual) victimization.
2. Those with prior vulnerability, including genetic predisposition, early age of onset and longer-lasting childhood trauma, lack of social support and increased concurrent stressful life events.
3. Those consistently reporting greater perceived threat of danger, terror, fear, horror, as well as suffering, or being upset in some way.
4. Those with a social environment associated with an atmosphere of shame, guilt, hatred, diminished self-worth or stigmatization.

As might be expected, a variety of other psychiatric disorders are apt to be more common in patients with PTSD. In some instances, these may obscure the diagnosis or influence the choice of treatment. **Up to 80 percent of patients have some coexistent psychological disturbance**, the most common being major or bipolar depression, anxiety and panic disorders, phobias, and substance abuse. Diagnosing PTSD in an office visit can be difficult. The disorder is often missed because patients do not typically volunteer information about a traumatic event that occurred more than six months previously. Stereotypic PTSD symptoms may also not be recognized or reported.

A brief trauma history should be elicited from all patients being evaluated for anxiety, depression, substance abuse, insomnia, phobias, and obsessive-compulsive or other behavioral disturbances. This should be followed up by direct questioning to explore any leads. It is important to emphasize that patients differ

in their perception of traumatic events, especially those that may have occurred during childhood and have been suppressed or not considered relevant. In addition to inquiring about early experiences, adult trauma should be investigated by asking patients "Have you ever been physically attacked or threatened?

Is It Really PTSD Or Something Else?

The horrific events of September 11 were somewhat unique because of their magnitude and unanticipated extensive global repercussions. In addition, the graphic depiction of the ghastly scenes on TV affected hundreds of millions around the world. The grisly replays of jets slamming into the World Trade Center and Pentagon, ensuing fireballs, skyscrapers being compacted and bodies in free fall were repeated over and over several times a day for a week or more as major networks here canceled their regular programming to provide 24-hour coverage of the tragedy and its depressing aftermath.

While these images will probably fade with the passage of time for most viewers they could be indelibly engraved in the minds of others. For some, certain triggers may cause them to be recalled along with the associated emotions of fear, panic and horror initially experienced. This is particularly apt to occur in those with a history of having previously been personally subjected to severe trauma and could also result in a recurrence of symptoms associated with the event. It is not clear if this will lead to bona fide cases of PTSD since not enough time has elapsed to satisfy this diagnosis. **Patients with these complaints are currently classified as suffering from Acute Stress Disorder.**

Acute Stress Disorder (ASD), sometimes referred to as Secondary Traumatic Stress Disorder (STSD), is similar to PTSD with respect to the deleterious effects of having been exposed to some disaster, a resultant state of increased vigilance and hyperarousal, evidence of clinically significant distress and strict avoidance of anything that might trigger reexperiencing the severe trauma. The major differences are that ASD tends to surface within a month after a traumatic event and symptoms of numbness or terror, intrusive thoughts, pervasive anxiety, vivid nightmares or depression usually don't last more than a few weeks. PTSD symptoms can occur any time after trauma, recur for years, and are much more severe. Instead of just feeling "jumpy" whenever a plane goes by, PTSD victims may be so fearful of leaving their house that they become recluses and are unable to hold on to their jobs.

It is too early to assess the PTSD fallout of the September 11 tragedy but prior studies suggest that between 10 and 30 percent of those who escaped from the New York and Washington infernos or who were personally involved in subsequent relief and rescue efforts may be affected. Simply witnessing the events on TV would not usually be sufficient to cause PTSD. However, the protracted and repetitive media coverage of these events is unprecedented and may have much more devastating and lasting effects.

Researchers report that trauma rates are also higher after incidents involving deliberate violence compared to natural disasters, especially in those with a history of depression or anxiety disorders. A study of Oklahoma City adults not directly involved in the 1995 bombing found that even those who were simply feeling nervous or afraid when the incident occurred were much more likely to develop PTSD. Individuals living alone who have little social support or someone to commiserate with are also more vulnerable. Many may depend entirely on what they see on TV since this is sometimes their only link to the outside world.

Considerable concern has also been expressed about the long-term effects on children who are repeatedly exposed to TV coverage of ghastly scenes. Elementary school children rarely distinguish between live and taped footage. As one authority cautioned, **"Children watching TV will have a very different experience than adults. They will think that all of New York has disappeared or that it's not safe for them to go sleep." Such fears are apt to be exaggerated as they sense the insecurity and frustration in adults around them.**

Parents may compound the problem because of difficulty in explaining what has happened and reassuring children there is nothing to worry about while simultaneously warning them to be extra cautious about avoiding strangers or certain locations. There are no simple solutions and experts disagree on the best way to prevent future problems.

What Is The Best Way To Deal With The Stress Of Disasters And Terrorism?

Since each situation differs with respect to cause, severity, duration, demographics of the affected population and other variables, treatment must be tailored to address specific needs that have the highest priority. Following the September 11 tragedy, sales of antianxiety drugs, sleeping pills, antidepressants and gas masks skyrocketed, especially in New York City. Subsequent outbreaks of exposure to anthrax in New York, Florida and elsewhere, possibly due to terrorist activities resulted in a similar run on Cipro and other antibiotics. Terrorist goals are not to kill a certain number of people but rather to instill feelings of fear and uncertainty about the future in all Americans and their allies. The success of their campaign depends on our ability to avoid mass hysteria and steer a course between overreacting to threats to our safety that may be unwarranted and prudent preparedness based on reliable information. Continued and convincing reassurance about our safety from appropriate officials is probably the best medicine for these troubled times, but many may require psychological counseling and/or medication for specific stress related symptoms. The antidepressant Zoloft has been approved for the treatment of PTSD but can take several weeks or more to exert its effects and may cause or aggravate anxiety complaints in patients who might benefit more from tranquilizers or beta blockers. **Treatment must be individualized.** Some feel that the greatest value of Zoloft and similar serotonin enhancers is their ability to get people to "open up" and to seek professional counseling to discuss their problems.

Counseling has become a controversial subject. Ever since the 1995 Oklahoma City bombing tragedy, armies of "grief counselors" and "crisis specialists" have immediately appeared at the scene of any disaster. Their value has recently been questioned in an open letter from 19 prominent psychologists including trauma specialists who warned that "In times like these it is imperative that we refrain from the urge to intervene in ways that - however well-intentioned - have the potential to make matters worse." Some questions raised include: Does everyone experiencing trauma need a therapist? Who are these people and do they really know what they are doing? **The notion that every trauma victim should be immediately pushed into a group discussion of details of a devastating event could backfire.** Listening to a list of symptoms experienced by some may turn into a self-fulfilling prophecy for others quite capable of coping with their own problems. Therapists who move too quickly or are too intrusive can also do more harm than good. Proper training and experience is needed such as that provided by the International Critical Incident Stress Foundation (ICISF) and The American Academy of Experts in Traumatic Stress, and I have been closely affiliated with both groups since their inception. ICISF has repeatedly demonstrated the value of their Crisis Intervention Stress Management (CISM) approach at our annual Congress and would be the first group I would contact. To find out why, visit www.icisf.org

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