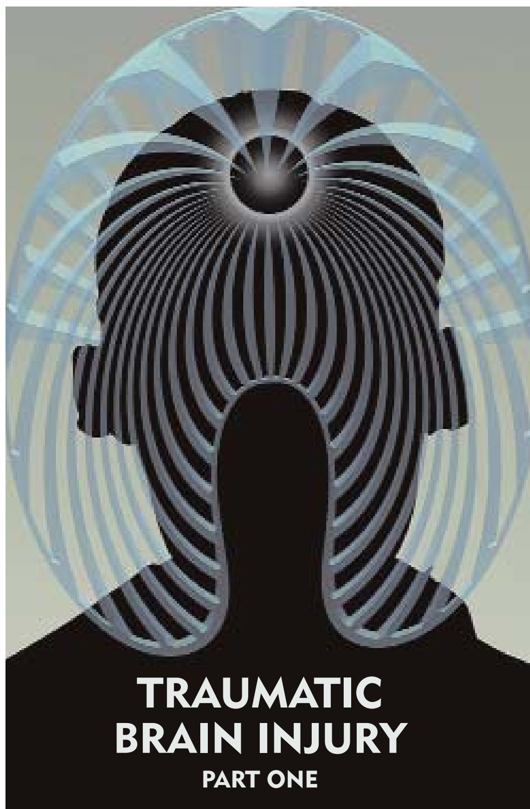


In the coming months, EP will explore the subject of traumatic brain injury (TBI) sustained by military personnel in the line of duty and will highlight the conditions that may result from TBI, such as depression and symptoms of post-traumatic stress disorders (PTSD).

What is Traumatic Brain Injury? How Is It Connected to Post-Traumatic Stress Disorder?

Learning the facts and increasing understanding about traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD) and learning more about current research and available treatment can often be one of the first steps in seeking help for recovery.

By Lorraine Cancro, MSW

A Letter to My Brothers from an Anonymous Marine

EDITOR'S NOTE: THIS NARRATIVE RELATES A TRUE BATTLE EXPERIENCE OF AN ACTUAL U.S. MARINE AND IS GRAPHIC IN NATURE. PLEASE BE ADVISED THAT THE LANGUAGE AND DESCRIPTIONS MAY NOT BE APPROPRIATE FOR SOME READERS.

I was probing for land mines with 13 other men. One man detonated a mine.The detonation blew up the man who detonated it and one other. I was next to them and about 15 yards away. I was in a hole that I had dug. The mine went off, and the concussion of the blast knocked my helmet into my head and then my head into the side of the hole that I had dug. When I got out, I was unaware of what had happened. I ran over to the blown-up corpse of the man and kicked him. I kicked him and said, "You could have killed me."A comrade came to my aid, calmed me down, and took me behind an enclosed area with the body.

An enemy combatant heard the blast and started firing at us. I took a machine gun and shot him with every round in the magazine. I grabbed another weapon and started shooting at others that I saw. A bullet ricocheted off of a rock and hit my helmet. I started firing at every silhouette that moved. Then we got orders from a higher, non-commissioned officer to withdraw.

Infantrymen came up beside us and started to fire at the enemy. Still fearing for my life, I kept firing. Someone slapped me in the back of my head and said, "Cease fire, all clear." I did not obey the first time. The superior kicked me and said, "Everything is all clear. Stop firing, goddamn it!"

We withdrew from the area, went back to the headquarters, and explained what happened. I felt like I was hit in the head really hard. The pain in my head was inexplicable, and the ringing in my ears was deafening. To the best of my abilities, I

"We few, we happy few, we band of brothers; for he to-day that sheds his blood with me shall be my brother."

--William Shakespeare, Henry V

explained to the superiors what had occurred. Our superiors left us in the room for a few hours while they discussed the confrontation, then Navy medical personnel examined us. When the experience was all over, and we went back to our normal routine, I did not feel anything – no remorse, nor sadness, nor any ill feelings.

Three months after the first incident, my battalion was sent on a humanitarian mission. We were receiving sniper fire daily and lost several men. We did not have rules to engage the enemy so we took it upon ourselves to locate, close with, and destroy them with explosives. I was the one who detonated the explosives.

I was in a stairwell about one flight down behind a wall, and the impact from that blast caused by the explosives knocked me off my feet, throwing me into a concrete wall. I landed on my back and head. I walked into the room and saw the consequence of the explosion. The dead included two men, one teenage boy, a woman, a boy about age ten and a young girl. Their bodies were ripped apart. There were weapons all over the apartment.

After leaving, I felt no remorse. My head was shaking and my ears were ringing as I looked at the carnage. In retrospect, I was in a state of shock caused by the traumatic event.

Not until two years later, when I finally got back home, did I start to feel the effects of what had happened. An anonymous person gave me a ten-milligram Valium tablet, and I never felt better in my life. All the pain was gone. Every time I took this medication to escape, I felt great but was so incoherent to other people that I neglected them. Subsequently, I ruined my marriage and kept taking pills to escape the pain.

Not until I sought professional help did I realize that talking about it was the best cure. I still have trouble today dealing with it, and I still take medication prescribed to me by a doctor. Not a day goes by that I don't feel remorse for the families of the men I killed. I will struggle with that for a long time.

When I came home from being overseas and saw civilized life, it awakened the terror that I had experienced. Large crowds would scare me. Loud noises would jar me. I always had to have my back to the wall. I would get anxiety attacks periodically and the only way I got relief without medication was to stick my finger down my throat to make myself vomit. I needed to either drink, breathe heavy, or vomit to experience a calming effect. But with the discovery of anxiety medications, those feelings went away. But I also made ALL my feelings go away, including happiness, the proper attention to my wife and family. This caused an extreme guilt that to this day I cannot cope with.

When I finally came to my senses, I realized buying benzos [benzodiazepines] from anonymous people was not the answer. Both psychotherapy along with the help of a psychiatrist to prescribe the right medications and proper dosage now help me with my daily life.

My biggest regret besides the remorse of killing was that I sought therapy too late and sunk to rock bottom. Learning the hard way is a very difficult thing, and an experience I would not wish on any of my brothers, my fellow Marines.

Take this advice to my brothers who have returned from combat and who may be suffering from having seen the same type of carnage I have:

The Marine's narrative above illustrates three specific wartime injuries: (1) traumatic brain injury (TBI) as well as neuropsychiatric sequelae (simply put, physical and mental health conditions that may be a result of the TBI), including (2) post-traumatic stress disorder (PTSD) and, (3) depression due to blast exposure.

Research Into TBI and PTSD

Traumatic events such as the September 11th attacks, the wars in Iraq and Afghanistan, and Hurricane Katrina have made the need for research into the areas of TBI and PTSD more imperative. Traumatic brain injury is any event that causes physical damage to the brain. PTSD is an accumulation of symptoms that occurr as a result of the damage sustained by the brain. Researchers need to learn more about TBI and PTSD to offer help and treat those who have sustained injury that is contiguous to the occurrence of the injury. Scientists have found that timely intervention of treatment may

serve to limit the severity of neuropsychological consequences.

Symptoms of PTSD

According to the *DSM-IV* (*Diagnostic and Statistical Manual of Mental Disorders*) and the *ICD-10* (*International Statistical Classification of Diseases and Related Health Problems,* 10th Revision), post traumatic stress disorder occurs as a result of exposure to a traumatic event in which the subject has experienced or witnessed events that threatened death or serious injury. Furthermore, the individual's response involves a sense of fear and helplessness. Both the experience and the emotional response to the experience are necessary for the onset of PTSD. There is a marked tendency for the event to be re-experienced mentally in an intrusive fashion, which is difficult to control. This re-living of the experience is described as a flashback.

The flashback is associated with intense psychological distress. Typical features include dreams or nightmares, occurring against the persisting background of a sense of "numbness" and emotional blunting, detachment from other people, unresponsiveness to surroundings, anhedonia (the inability to gain pleasure from enjoyable experiences), and avoidance of activities and situations reminiscent of the trauma. There is usually a state of autonomic hyperarousal with hypervigilance, an enhanced startle reaction, and insomnia. Anxiety and depression are commonly associated with the above symptoms and signs, and suicidal ideation (thoughts about suicide) is not infrequent.

War and Injuries

The war in Iraq has been characterized by a large number of returning military personnel with severe brain injury. While most attention has been focused on penetrating wounds, with their dramatic and disastrous physical damage, other types of brain damage are also significant.

One of the most common sources of injury is blasts in which damage is primarily due to pressure changes resulting from explosions. This may be accompanied by injuries secondary to blunt trauma, due to sudden acceleration of the soldier or his collision with flying objects. Pure blast injuries and some of the more minor blunt trauma injuries result in MTBI (mild traumatic brain injury).

The Centers for Disease Control and Prevention (CDC) criteria for MTBIs include one or more of the following: any period of observed or self-reported transient confusion, disorientation, or impaired consciousness (i.e., altered mental state); dysfunction of memory around the time of injury; or loss of consciousness (LOC) less than 30 minutes; and/or other neuropsychological or neurological dysfunction.

This term is somewhat of a misnomer since MTBIs have other symptoms, including post-concussive syndromes and a variety of neurobehavioral disturbances. One of the most common, most studied, and most controversial of these is PTSD. The major point of contention regarding PTSD is whether it could occur in the setting of amnesia. This, together with the similarity of post-concussive symptoms to some of the symptoms of PTSD, has led some to conclude that PTSD is being over-diagnosed. On the other hand, it appears that some patients may have partial memory of the traumatic event while others, in the absence of explicit memories, react based on an unconscious set of "memories."

Diagnostic Tools for PTSD

According to the proponents of this view, PTSD may be under-diagnosed since classic recollections may not be present. It has been suggested that the interviewer use his or her judgment as to whether the patient is suffering from post-concussive syndrome versus PTSD based on the nature of symptoms and their time course, even if specific recollections are not available. An alternative approach is that instead of a categorical diagnosis being made, the symptoms (which may or may not include memory or flashbacks) such as irritability and the sense of foreshortened future associated with PTSD be quantified. It also should be noted that the Breslau short screening test assists in determining the nature of a variety of clinical symptoms that can be helpful in the treatment phase of PTSD.

Another problem hindering the understanding of MTBI is the routine reliance on computed axial tomography (CT or CAT scans), for assessing brain damage. While operationally and from a practical point of view, this is understandable since the CT will identify the vast majority of cases requiring emergent treatment (e.g., hemorrhagic sequelae), its widespread use has led to its de facto acceptance as a "gold standard" for diagnosis, more commonly found with other imaging techniques, including magnetic resonance imaging (MRI) – especially techniques such as diffusion-weighted or fluid-attenuated inversion recovery (FLAIR) magnetic resonance imaging (MRI), magnetoencephalography (MEG), and nuclear scans, such as positron emission tomography (PET) or single photon emission computed tomography (SPECT).

A recent study indicates that diffusion tensor imaging (DTI) may be particularly useful. This is not surprising since diffuse axonal injury may be the most common injury in MTBI, and DTI results are based on alterations in axonal integrity.

However, as recently reviewed, positive findings abound regarding alterations in axonal integrity. The understanding of MTBI has also been hindered by the scarcity of post-mortem material due to its non-lethal nature. Surprisingly, despite the fact that quantitative electroencephalography (qEEG), or brain mapping,

is quite sensitive to brain injury and is far easier than many of the above techniques, this has been neglected.

Recent Information on Blast-Related Injuries

A recent study revealed that 88 percent of combat injuries treated at an echelon II medical unit in Iraq were blast-related (improvised explosive device (IED) or mortar) injuries, with 47 percent directly involving the head. Even in the absence of any obvious head injury, brain blast exposure (BBE) would have occurred.

In one Marine unit in Iraq, 97 percent of the injuries were from explosions (65 percent IEDs, 32 percent mines). The subsequent physical and mental conditions from BBE and brain blast injury (BBI) are still uncertain. In a 1998 report, it was noted that combat veterans who had a history of blast exposure and had subsequently developed PTSD had persistent electroencephalography (EEG) abnormalities and neurological symptoms consistent with mild traumatic brain injury.

Mental Health Diagnoses and Services

The necessity for mental health services throughout the military is obvious. Four of the five leading causes of disability days in America are psychiatric in nature. In addition, many general medical problems are associated with psychiatric comorbidity. (Comorbidity refers to the presence of one or more disorders or diseases in addition to a primary disease or disorder.) For example, serious wounds resulting in disfigurement or amputation are often associated with depressive and anxiety disorders as complicating features.

The most common form of TBI is of the closed-head type. While the skull bone is unbroken, the brain has been jostled and strikes the internal surface of the bony cranium, producing brain injuries.

The resulting psychological symptoms range from mood instability to dementia. Of particular importance are functional imaging techniques such as functional magnetic resonance imaging (fMRI), MEG, and (qEEG). Structural assessments such as CT scans are important to rule out tissue damage, but more commonly, the problem is disrupted functionality.

PTSD must be differentiated from acute stress disorder because of the difference in prognosis. In PTSD, the traumatic event is persistently re-experienced. It can be associated with avoidance of stimuli as well as increased arousal. The disorder can cause significant distress or impairment in social, occupational, and other important areas of functioning. It also can occur with a delayed onset, where the symptoms do not occur until six months or so after the stressor event.

Depression with or without anxiety may appear as a comorbid symptom in PTSD and in TBI. Another common comorbid condition involves substance abuse. It is important that these comorbid conditions be recognized.

Treatment of PTSD and Other Anxiety Disorders

Treatment of PTSD and other anxiety disorders has two components, which can be offered separately or in combination. They are medication and psychotherapy. Both approaches alone or in combination can be effective in most of the anxiety disorders, but specific phobias respond best to specific forms of psychotherapy where the person is gradually exposed to the feared object and learns to deal with the resulting distress.

It is very important that the therapist be able to do a careful diagnostic evaluation to see what specific forms of anxiety disorder or disorders are involved. Anxiety disorders are comorbid with alcohol and/or drug abuse. These may be sufficiently severe as to warrant separate or even immediate treatment prior to taking on the problem of the anxiety disorder.

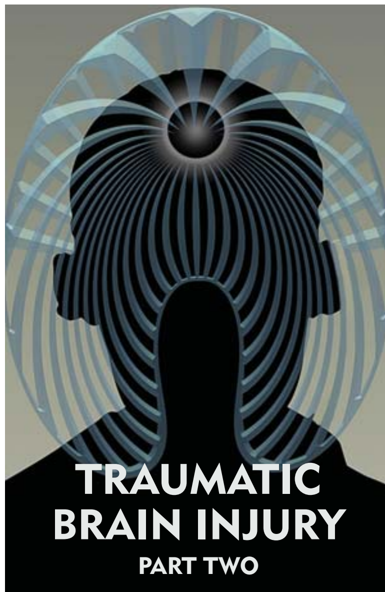
Because medication can play a role in many of these illnesses, it is useful to seek out a psychiatrist as the person involved in treatment. Sometimes the psychiatrist may choose to work with a psychologist or counselor, but there is an advantage to having one person available for total care. The choice of medication must be explained as well as the side effects and/or problems that may be associated with that medication. •

References cited in this article can be requested from jhollingsworth@eparent.com.

EP's Commitment to TBI and PTSD Education and Awareness

TBI and PTSD education and research are priorities for the Department of Defense in 2008. *EP* is working with the Exceptional Family Member Program (EFMP) in all branches of the military and is broadening its commitment in its Exceptional Family Transitional Training Program (EFTTP) by offering ongoing coverage of TBI, PTSD, anxiety, depression, and stress management. In so doing, *EP* continues its outreach and education to serve even more military personnel and their families as they so nobly serve us.

There is currently an inadequate amount of literature concerning the development of PTSD after TBI, particularly in war fighters. *EP* has plans to implement multidisciplinary educational programs, create a database for retrospective analysis, and collaborate with world-renowned neuroscientists to spearhead innovative research concerning the nature of injuries and subsequent pathophysiological mechanisms that can lead to several comorbid conditions. These programs will be aimed at healthcare providers, military members, and their families. *EP*'s online educational series will cover conditions including TBI and the development of neuropsychiatric conditions such as PTSD and other anxiety disorders, depression, and substance abuse.



Depression

By Robert Cancro, MD

War is traumatic, not only in terms of physical injuries but psychological ones as well. The veterans presently returning from Iraq and Afghanistan have experienced hand-to-hand combat, blast injuries, traumatic brain injury, etc. In addition, they have experienced severe stress, loss of comrades, family separation and breakup, loneliness, etc. It is not a surprise that we face a near epidemic of depressive disorders with our returning troops. Hopefully, a better understanding on our part can be of help in their recovery. We owe them no less!

The following was written as a primer article on depression. Subsequent articles will provide details about depression specific to the experience of military servicemembers.

Depression – An Under-Recognized Health Crisis

Mental illnesses are an under-recognized public health crisis. They are the last of the medical illnesses, hidden because of the unrelenting stigma associated with them. People frequently are ashamed to admit the presence of a mental illness and tend to deny its existence in themselves and/or their family members. This is particularly unfortunate because of the tendency of mental illnesses to run in families. This tendency is most true for the more severe forms of mental illness, which have a significant genetic component.

Depression and Genetics

Concerning the genetic component, it is important to realize that it is frequently misunderstood that genes have an inevitable outcome in an almost Calvinistic sense. People believe that if you have the gene you must have the consequence of that gene. Though this is usually true for simple traits such as hair color, it is not true for complex traits such as mental illnesses. The genes represent a potential or a tendency. They are necessary but not sufficient to produce an illness in most cases. A common example is Type II diabetes. If the individual gains weight, they may develop the illness, but if they remain slender, they may well go through life without ever knowing that they have the tendency.

The cumulative and acute stressors of living act as the precipitating events for most mental disorders. Obviously, there are certain periods of life in which the individual is at increased vulnerability. Yet, it must be emphasized that having the potential is not the same as becoming sick.

This article will focus on the mental illness of depression. Depression is a genetically loaded disorder that runs in families but does not necessarily affect every member. Again, while genes play a role in predisposing an individual to depression, they do not preclude either successful treatment or avoidance of illness.

Symptoms and Associations

Depression is a disease that must be distinguished from unhappiness or an appropriate response to a loss or injury. Sadness in the face of unhappy events is not an illness. Depression, furthermore, is not just a disease of mood. It is characterized by a loss of energy, by fatigue, social withdrawal, confusion, cognitive dulling, a loss of ability to enjoy the activities that normally please the individual, and changes in sleep, libido, and appetite. Much more than mood is involved.

Depression is the leading cause of disability/sick days in the United States workforce and soon will be the second leading cause in the world. About half of the individuals who are challenged with depression have a recurrent form of the illness. While depression is more frequent in women, it is an equal opportunity disease, striking all socioeconomic classes, races, and age groups. It appears to be on the increase in frequency, but this may reflect greater public awareness of depression as an illness and not just as a condition of life that must be borne. Furthermore, family doctors and pediatricians are more alert to depression than they were in the past, so we cannot say if it is more frequent or simply better recognized. On the other hand, the stresses of contemporary life are such that it would not be a surprise if depression were actually on the increase.

Depression, unfortunately, is frequently associated with suicide. Suicide is on the increase in the United States, and this supports the hypothesis that depressive illnesses are on the increase. Presently, suicide is the eighth-leading cause of death in the United States and is the second leading cause of death in the college-age population.

The criterion of an official psychiatric diagnosis is a major

depressive episode. The diagnosis requires that several symptoms must be present during the same two-week period and represent a change from a previous level of functioning. Depressed mood, most of the day and practically every day, is the leading subjective criterion. But the official diagnostic system recognizes that loss of interest or loss of pleasure in activities that are normally pleasurable to the individual is an extremely important criterion as well. Classical depressions are associated with weight loss and loss of appetite. We do, nevertheless, see certain depressions that are associated with increased appetite and weight gain. Insomnia, particularly waking up early in the morning, is the classical finding in depression, but again, there are cases where the person overeats and/or oversleeps. Fatigue or loss of energy is an extremely important finding. Impaired ability to think clearly, to concentrate, and to make decisions are very important diagnostic findings in this syndrome.

As stated before, there are certain periods in life when individuals are more vulnerable to depression. Following the birth of a child, it is not uncommon to see a mother experience severe depression within several weeks after delivery. These depressive conditions are frequently mixed and have features of suspiciousness or even frank paranoia. The impact of depression is not only on the patient and the economy, but has a strong effect on the family of the patient. It can be extremely difficult to live with a person who is depressed and even more so when the condition is recurrent.

Correct Diagnosis

An important issue in diagnosis is to make sure the individual is free of medical problems. For example, hypothyroidism can mimic many features of depression and is sometimes treated incorrectly as a depressive episode when, in fact, it represents a deficiency of thyroid hormone. It is essential, therefore, that any person who presents with a depressive episode be worked up medically to make sure that they do not have a medical condition that mimics depression.

The important message is that depression can be treated successfully but must be diagnosed correctly. For example, depression associated with manic-depressive illness must be treated differently than recurrent depression, which is not associated with manic or hypomanic mood swings. The vast majority of patients can be treated successfully with a mixture of medication and psychotherapy.

Variants of Depression

An interesting variant of depression is called seasonal affective disorder (SAD). It is a depression that occurs when the days get shorter. The relative absence of sunlight is associated with a depressive illness. Such people respond to a change in location to a sunny climate or to exposure to lamps that simulate the spectrum of daylight. It is also interesting to note that the prevalence of depression increases as a function of distance from the equator. The further you are from the equator the more one sees depressive illnesses.

Another important category of depression is what used to be called masked depression. These are conditions in which the abnormal mood is not the major symptom, but rather the loss of energy, interest, ability to enjoy, etc. are the predominant features. These cases can be misdiagnosed because the absence of a depressed mood can confuse the clinician.

Depression's Effect on the Body

Depressive illnesses are frequently associated with other general medical conditions. Patients who have had a heart attack and who become depressed have a much worse prognosis than patients who do not become depressed. This appears to be true in a number of medical disorders. It is not clear why the depressive component adds to the morbidity of the underlying medical illness. It is certainly possible that the stress hormones that are released during a depressive episode have a negative effect on the healing process and impair resistance to infectious disease as well. It is important to understand that depression is a killer not only in the sense of suicide but in the sense of the damage that it does to the nervous system because of the body's chronic stress response.

Treatment

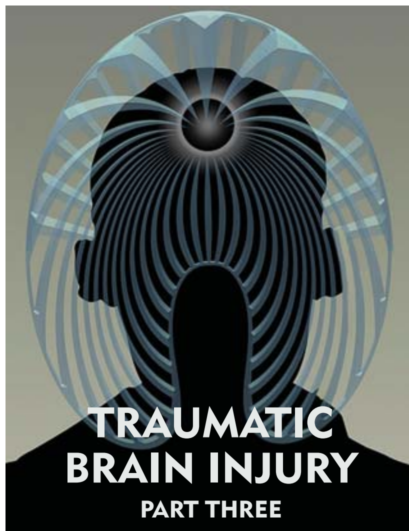
Today, most depressive episodes are treated with antidepressive drugs. The vast majority of patients will respond adequately, but frequently, it is necessary to have them take two or more medications before a good recovery can be obtained. Electroconvulsive therapy remains the most effective and most rapid means of treatment, but it carries a serious stigma. For this reason, it is not used frequently and is restricted to those cases that are otherwise untreatable.

The emphasis on medication has caused many clinicians to deemphasize the importance of psychosocial treatment. Yet the optimum treatment for these conditions remains a mixture of medication and psychosocial treatment. Some psychosocial treatments, such as cognitive therapy, are more effective.

Nevertheless, it is important, if we are going to prevent recurrences, for the person to do a survey of his or her life and to try to make corrections where needed. People who are predisposed to depression frequently are very demanding of themselves. They often do not have a good balance in their life. They tend to do too much for other people and do not have an adequate support system for themselves. An analogy is a checking account where too many checks are being written but not enough deposits are being made.

Everyone requires emotional support. Everyone needs to feel necessary and useful. Being needed is valuable, but being valued is of even greater importance. Put most simply, we need to be loved, and that is an excellent prophylactic for preventing future depressive episodes. •

Dr. Robert Cancro, MD, Med.D.Sc., is retired Chairman of the Department of Psychiatry at the New York University (NYU) School of Medicine where he had served since 1976, and is also retired Director of the Nathan Kline Institute for Psychiatric Research (NKI). He continues as a Professor of Psychiatry at NYU. Dr. Cancro's major academic interest has been in the area of psychoses during his extensive career.



Substance Abuse: A Crisis of Hope

By Lorraine Cancro, MSW

EP continues its exploration of the effects of combat on servicemembers who have returned home and are attempting to cope with traumatic experiences while reintegrating into the daily life of family, community, and work. This series focuses on traumatic brain injury, post-traumatic stress disorder, and related health issues. This month's article explores the issue of substance abuse, some of its effects, and some options and thoughts for recovery.

The world is not an easy place, and when you have endured a traumatic experience in combat, a servicemember can be left with a scar on the psyche. There is no way to escape the fact that an experience of heightened fear and violence casts a shadow upon its recipient. We may avoid the memories in a number of ways, through repression, denial, and forms of escape. This does not negate that the experience of pain and fear occurred. To avoid something does not mean it does not exist. It means that the one who went through the traumatic event is not willing to re-experience the memory. Unfortunately, what we try to avoid only builds momentum, becoming stronger, wielding demons in its wake.

These demons come in small sizes at first, such as inconsistent sleep, irritability, lack of concentration, and the inability to get along with others at work or at home, and then they grow into more insidious demons, taking shape in the form of self-destructive activities, such as binge drinking, drug abuse, and sometimes even violence. Trying so hard to run from the painful experiences of the past, the person is unconsciously attracted to creating destructive experiences in the present.

Avoiding pain through self-destructive behavior is not the answer. Many veterans are coming back to the United States addicted to painkillers as well as illicit drugs. They experience a lot of shame after they have taken them. For example, one veteran shared with me that he did things he was not proud of while on them, and another shared that he disappointed a family member by driving drunk and by acting irrationally. There was a theme of heavy, even if irrational, guilt that remained consistent among all of the veterans in their anecdotes about taking drugs or drinking excessively. To get past the guilt, the servicemember needs to see what drove him or her to making these potentially lethal choices in the first place. If one can get past the shame to look at how one was feeling shortly before taking drugs or drinking excessively, one may find that the feelings are the same. Some shared with me their feelings of hopelessness, general malaise, despair, and anger, which led to their desire to escape by numbing themselves or desiring to achieve that brief feeling of euphoria and elation that might come from a stimulant. They expressed that they were looking to ease the dull ache, the insidious pain, with which they were wrestling, in most cases unconsciously.

Some veterans shared that they feel as if they are bad in some way, and that is why they are taking drugs and alcohol. They seem resigned to the notion that they are not worthy of feeling good about themselves. Face it, waking up after a night of bingeing and/or drug use is not a good feeling. One is not going to wake up singing, "Oh, what a beautiful morning!" Many have said to me that to attempt to allay the urge for drugs, they imagine what they will feel like about 12 hours from the beginning of taking them, in hopes of being deterred. Generally, they will succumb to the urge, because the pull for that feeling of relief is stronger than the deterrent of a hangover the next day. It's those 12 hours that the servicemember is after, a way to relieve the pain. What do I mean by relief? Feeling better. A way to escape feeling depressed, anxious, or half alive, as one military member described. The problem is that this relief is so very temporary and, even worse, can prove fatal. Where can a servicemember find a form of healthy relief? Therapy is a good start. Unfortunately, some express their fear of opening up with anyone, afraid that their history would not remain confidential. There is a feeling of loss of safety after having been through some very scary, life-and-death events. Feeling trust in anyone or anything in a world that no longer feels safe is a very difficult hurdle to overcome. There is a loss of faith not only in themselves but in the world at large.

If you can relate to this, do not give

Learn From My Mistakes

A Narrative from an Anonymous Marine

Editor's Note: This narrative was written by the same concerned U.S. Marine Corps Noncommissioned Officer (NCO) veteran who contributed to the first installment in the series about traumatic brain injury, post-traumatic stress disorder, and related health issues, which appeared in the May issue of EP. The piece describes the experiences of this Marine veteran attempting to cope with traumatic experiences undergone during his time in combat, his subsequent struggle with substance abuse, and his road to recovery.

The first time I ever used a substance, it was a 10mg Valium®. I was at my old job. My boss was a Vietnam veteran, and he had a prescription. I was extremely stressed out one day, and my boss said, "Try one of these." He gave me the Valium, and I felt like a million dollars. After I experienced that, I went to my doctor and told him, "I've been feeling great stress, and is there any way you can help me relieve it?" She wrote me a prescription for 10mg of Valium, and I didn't take it every day. I would take it once a month and increased the dosage anywhere from 20mg to 30mg and finally got up to 100mg in one sitting, but once a month. When I was on Valium, I would lie on my couch and listen to music by Pink Floyd. I would try to do this before my wife came home from work so that she wouldn't see that I was altered. But still, I wasn't using it every day. Then I would go back to the doctor and get another prescription. I went infrequently so that I would not be red flagged. This went on for six months. I switched doctors, and he was even more willing to write me prescriptions. He prescribed 10mg of Valium. This went on for a few years. Two years ago, I started getting sick a lot and had a few physical problems that required painkillers. First, I was prescribed Percocet®, then OxyContin®, and finally Vicodin®. Then I started mixing drugs. I wouldn't be taking the prescribed amounts. I would be taking much more.

At that point, my wife started to notice that I was out of it. She warned me that I shouldn't be taking too many medications. As my health worsened, I finally got to a point where I was out of it for a month. My wife left me at this time, since I had become uncontrollable. At that point, I went to rehabilitation, stopped taking these drugs, and went to a new psychiatrist who prescribed antidepressants and antianxiety medications. I was prescribed a large dosage of Ativan®, and I went through a month's supply in a week. I was drinking and taking antianxiety medications. I was on a real binge. While I was abusing drugs, my judgment was very impaired.

Finally, I ran out of my antianxiety medication and my psychiatrist would not refill my prescriptions due to his understanding that I was abusing them. For three weeks, I was living in hell, going through withdrawal. I was circling around my dining room table in a panic, feeling like I was going to die. It was through prayer that I made it

up on finding a practitioner or friend that you can trust to share your experiences with, since this is not a problem that is conquerable alone. The desire for relief from the pain born out of traumatic experiences is a very strong one. One veteran said that he grapples with the desire to turn to drugs or alcohol. What occurred to me as he said this is that one needs to get in touch with what is driving the actions toward this destructive behavior. Before healing can occur, he or she will have to take a long, hard look at the traumatic event and its aftermath.

Fear is a mighty foe. There is fear of facing the past, fear of remembering the acts from combat, and fear of facing a personal sense of guilt for these acts. Self-medication is a way of escaping from fear and shame. The problem is that this form of escape not only creates more shame, but can put a person's life in jeopardy. In speaking with veterans, I found that several of them were not moved by the idea of losing their lives while taking drugs. They had seen close friends, comrades, the enemy, and innocent civilians die, and they were numb to the desire to live as a result. They seemed to be living in and out of their bodies. In therapeutic terms, they were *dissociating*.

Dissociation is a very self-protective act, a form of defense, to dissociate oneself from feelings that were generated by a traumatic event. Unfortunately, war is a source of traumatic events. Dissociating is a way for one's psyche to protect itself from experiencing feelings of sorrow and pain. The double-edged quality of this defense is that it leaves a person unable to experience real joy as well.

In an attempt to survive, the ability to thrive has been thwarted. One becomes like a vessel floating emptily, aimlessly, uncertain of the past and very disconnected from the future. The present is what one is attempting to endure. And the quest for the high, the quest for numbness, is a way to avoid feeling pain, an attempt to experience a synthetic form of joy or elation. It is not the kind of joy one feels when he or she sees a loved one accomplish a milestone in their lives (e.g., seeing a son or daughter graduate from college, or an elder parent reach age 80, or the feeling of joy one feels when he or she falls in love). It is a very temporary feeling of elation. As I've heard it described, "I felt amazing, although it was short-lived."

Where is the future in that short-lived feeling? There is none. It is hollow. So how does one shed the pain, be alive again in a real way? How does one learn how to create and experience real joy? How can one avoid being paralyzed by the pain of the past?

No matter how low you think you

through the experience. Humans have free will. I asked God for the strength to turn away from drugs, but I had to be willing to do the work. I prayed for help and wisdom. I had hit rock bottom, and it was a real eye opener. I went to my psychiatrist, and I confessed that I couldn't be trusted with large amounts of drugs. I asked for a lower dose of a medication that instead of providing instant relief would provide long-term relief. This was Klonopin®. I could not abuse drugs anymore. I have to take medications as they are prescribed. I bought seven-day pill holders, designating morning, afternoon, evening, etc. It structured the taking of the medication for me.

I've been a balanced individual ever since. I now am thinking clearly. I'm happy instead of being totally emotionless; I now feel joy. I started going out and doing things that I've always wanted to do, like taking singing lessons. And I feel more productive at work. Also, I don't lose my temper the way that I used to. This new regimen, in tandem with therapy, has really helped me change my life for the better. I can have a conversation that gets to a point of disagreement and can now express myself calmly instead of becoming angry. This was not easy for me before. I also stopped drinking, since I understood that drinking was a catalyst to craving the other substances. They go hand in hand. I am clean and sober, although taking medication as prescribed by my psychiatrist.

What I would strongly recommend is instead of taking pills out of the bottle, get one of those weekly pill containers, since when I was abusing them I would take a few out of the bottle, not realizing how quickly I was consuming them. Now, I have stopped abusing drugs and feel great. I've improved communication with my family and friends. Again, taking medication as prescribed, I am feeling stable and at peace. If conflicts arise, I can handle them in a spirit of equanimity as opposed to angry confrontation. The only time that I do express my rage is in therapy, which is a safe holding environment and is within reason. In other words, I don't get up and punch my therapist!!

Therapy and psychopharmacologic agents have made a huge difference in my recovery. And, again, I really recommend that weekly medicine container, since it has made a huge difference for me, since it kept me on the straight and narrow in taking my prescriptions in a correct fashion. What I went through, I don't want anyone else to go through. Get help before you lose your family, job, and all that is important to you. We are military men and women, and we know what self-discipline is. We should remember our training and practice that self-discipline that was instilled in us to get us out of this mire. I would also recommend speaking to a professional about your problems and what you've been through. When I did so, it opened the pressure cooker and all that rage which had built up inside of me started to release in a positive way as opposed to a destructive one. When you are doing drugs or drinking to excess, you are only masking the pain and anger that you are feeling. You are hurting yourself. It is simple: If you were feeling good and happy, you would not be taking drugs or drinking excessively since you wouldn't feel the need. As a Marine veteran NCO (Noncommissioned Officer) who cares about his brothers at arms, learn from my experience. I am not fully recovered from all that I've been through, but this problem will not defeat me. •

have sunk into an abyss, there is hope. At the root of all of this pain is a crisis of faith. I do not mean faith born only of religion, but faith whose root lives in a person's innermost, private being—the faith that produces the momentum to believe that life can be meaningful again. To do this, one must investigate the pain born out of past traumatic experiences that led to this place. One must face it, look it in the eyes, and make peace with it, and more often than not, a person needs to seek self-forgiveness.

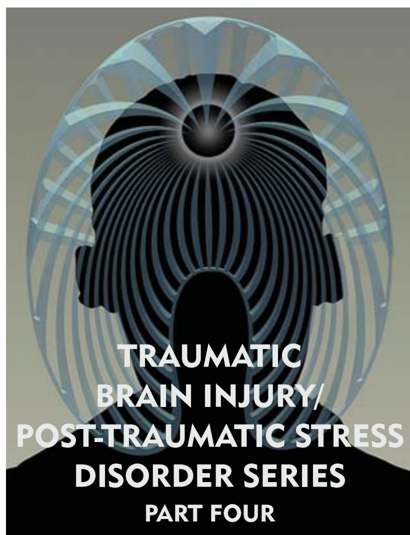
Mankind carries his own jury and executioner within, which when fully engaged is waiting to criticize its owner. The louder this voice is within, the harder one binges, the more one desires to escape or numb feelings and emotions, creating a vicious cycle in which one feels less and less alive.

Finding hope in the midst of so many contradictory feelings is not easy. Ideally, part of this path needs to be traversed with a trusted professional who can help a patient wade through the traumatic experiences that led to destructive behavior. This requires a person to let down his or her guard enough to let someone in. A practitioner or friend has to care enough to avoid judgment while they help the person cultivate the best of themselves, heal the hurt and anger, and plant the fragile seeds of self-esteem. As healing occurs, the seeds of success, instead of failure, are nurtured and lead to seeing the world in a very different way.

But often, one needs support to redefine personal faith in life. Man is not an island. Much of our pain and sorrow in life is sown with others—and healing will not occur without a band of brothers holding our hand along the way.

Recovery from substance abuse related to post-traumatic stress disorder can be gained through programs like Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), where people find the safety to share their feelings and experiences with others. AA and NA along with individual therapy and medication prescribed by a professional are among the best forms of treatment for addictions. •

Lorraine Cancro, MSW, is a Clinical Social Worker and Director of Business Development for EP Global Communications, Inc. She collaborates with scientists in the departments of Psychiatry and Neuroscience at New York University (NYU) Medical Center and Bellevue Hospital in research on traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD) among returning military members. The current research that she spearheads will be a source of new findings for the continued TBI/PTSD series in *EP* magazine's military section as well as for the upcoming EP LiveOnline TBI/PTSD online seminar series, which will include several prominent scientists from NYU, Bellevue, and other medical institutions as speakers.



Sleep Disturbances: A Common and Challenging Symptom of Post-Traumatic Stress Disorder

By James Halper, MD

EP continues its exploration of the effects of combat on servicemembers who have returned home and are attempting to cope with traumatic experiences while reintegrating into the daily life of family, community, and work. This series focuses on traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), and related health issues. This month's article explores the effect of sleep disturbances and PTSD and some treatments being used to address these issues.

Sleep distrubances are a major sympton of post-traumatic stress disorder (PTSD). In the *DSM-IV-TR* (*Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision*), the official diagnostic manual of the American Psychiatric Association (APA) in the diagnosis of PTSD, the presence of nightmares (recurrent distressing dreams of an event) is part of the *DSM*'s Criterion B (reexperiencing of the traumatic event) and difficulty falling or staying asleep are part of Criterion D (increased arousal)—i.e., sleep disturbances comprise two of the five criteria required for the diagnosis of PTSD.

One or both of these features is experienced in up to 90 percent of patients with PTSD. These symptoms are considered particularly distressing by patients and have a highly negative impact on their quality of life (QOL). Additionally, there is evidence that impaired sleep contributes to physical and mental disorders associated with PTSD and is a contributor to the development and/or is a perpetuator of PTSD itself.

Sleep disturbances also play a role in substance abuse—especially alcohol abuse—as people attempt to self-medicate to avoid the distress associated with disturbed sleep and/or nightmares. Patients also respond to disturbances such as nightmares by engaging in behaviors in which they avoid sleep, resulting in insomnia. These sleep difficulties have a major adverse impact on patients with PTSD. The effective treatment of sleep disturbances is associated with beneficial consequences that go beyond improved sleep and decreased nightmares.

Seeking Effective Treatments

A variety of treatments have been tried, and some have shown greater results than others.

Unfortunately, sleep disturbances frequently do not respond to selective serotonin reuptake inhibitors (SSRIs), the major treatment for PTSD. Indeed, SSRIs may, at least initially, make insomnia more severe. The new generation of "atypical antipsychotics" (e.g.: quetiapine, olanzapine, and risperidone) may be helpful but are associated with side effects that include sedation and weight gain. Recently, however, new treatments have been developed that are more effective for sleep disturbances. These new treatments have been developed, in part, because of increased understanding of the pathophysiology (the accompanying functional changes) of PTSD.

Understanding Sleep

Sleep is divided into a variety of stages. The major division is that between rapid eye movement (REM) sleep and non-REM sleep. Most, but not all, dreams occur during REM. Additionally, during REM, the body is essentially paralyzed. The paralysis is useful in that it prevents people from acting out their dreams. The brain waves in REM are very rapid and desynchronized. Non-REM sleep is divided into three stages. Here, we look first at the third stage. It is the deepest sleep and is known as slow-wave sleep (SWS), because the brain waves recorded during this type of sleep by electroencephalogram (EEG) are slow. They are also synchronized. It is thought that slow-wave sleep is the major restorative sleep. The amount of this sleep will determine whether you

feel you have obtained a good night's rest when you awake in the morning. Stage 1 and 2 sleep is intermediate between REM and slow-wave sleep with respect to rate and degree of synchronization. While the majority of dreaming occurs during REM, it also occurs during other stages, particularly if the sleep is light and the sleeper can be easily awakened.

Understanding PTSD and Sleep

It is thought that PTSD is associated with a failure to process and neutralize frightening memories. This failure allows frightening memories to push in during waking and sleeping hours. Because processing normally occurs during sleep, particularly REM sleep, and nightmares disrupt sleep, a vicious cycle begins, in which the processing of frightening memories is compromised. This has led to the use of a variety of psychotherapies to enhance processing and neutralization of frightening memories to decrease their ability to disturb sleep and to enhance sleep-mediated processing of disturbing thoughts. Alternatively, there are medications that decrease disturbing dreams. The effect of medications on processing frightening memories is unclear, but the two approaches may be complementary since medications may be helpful in breaking the vicious circle noted above.

All Systems Not Go: Some of the Difficulties

Stress in general, and PTSD, in particular, is thought to be associated with activation of the noradrenergic system (NAS). The noradrenergic system consists of the neurotransmitter norepinephrine and its receptors, which are found in the central nervous system and throughout the body—on nerves, blood vessels, and organs, including the heart. There are many types of noradrenergic receptors, alpha (alpha1 and alpha 2) and beta. The noradrenergic system is thought to play a role in the transition from acute stress disorders to chronic stress disorders and to be central to the symptoms in established cases of PTSD. Alpha receptors are believed to have the predominant role in these symptoms, including sleep disruption and intrusions of unwanted and frightening thoughts while patients are awake or asleep. The understanding of the role that the noradrenergic system plays has led to the use of medications that block the noradrenergic system as a way of treating sleep disorders and nightmares.

Evidence for the role that the noradrenergic system plays includes the following: Many of the areas of the brain thought to be associated with PTSD symptoms are heavily stimulated by noradrenergic (NA) neurons and express a high density of noradrenergic receptors. They are very responsive to activation of the system. Furthermore, concentrations of noradrenergic neurons in the cerebrospinal fluid (CSF) are highly correlated with the severity of symptoms of PTSD, and excretion by noradrenergic neurons of Norepinephrine and its metabolites are increased in the urine of patients with PTSD.

Laboratory studies show that increased noradrenergic activity has a variety of bad effects on a person's REM sleep. These include the diminishing of REM-associated paralysis, leading to increased movements during REM, which may lead to waking up. In addition, shifts from REM to other stages are increased. Thus, noradrenergic system activation is associated with REM fragmentation (waking up throughout the night, reducing the total amount of time spent in the deeper levels of sleep). Poor-quality REM sleep, in addition to leading to awakenings, also prevents a person from processing stressful memories. This leads to waking up more often and decreased processing. In addition, NA stimulation is associated with the lightening of types of sleep other than REM and increased levels of corticotrophin releasing factor (CRF). Corticotrophin releasing factor is a hormone produced by the hypothalamus that leads to anxiety, including an increase in a person's primitive internal alarm system. Furthermore, it leads to release of Norepinephrine by noradrenergic neurons, which in turn leads to further release of corticotrophin releasing factor, again, increasing a person's anxiety level.

The Role of Medications

All this suggests that medications that interfere with the noradrenergic system might be useful in PTSD. Clonidine is one such medication. It is an activator (agonist) of the type 2 alpha receptor, a receptor that decreases noradrenergic neuron release of Norepinephrine. Thus, clonidine causes the noradrener-

gic system to regulate down. Its major use in medicine is to treat hypertension —hence, hypotension is one of its side effects. Its peak effect occurs one to three hours after it is taken by mouth, and a usual dosage is .2 to.4 mg. Aside from hypotension, bad side effects are dry mouth, drowsiness, and constipation. The beneficial effects may wear off in time, requiring an increase in the dosage. There have been a number of reports of its successful use for those with PTSD, particularly in children.

Recently, most studies of medications to regulate the noradrenergic system have focused on prazosin, which blocks the alpha1 receptor. It is used for hypertension and urinary difficulties that are secondary to a non-life threatening enlargement of the prostate. Multiple studies of this medication have shown its use for the treatment of PTSD, particularly for the treatment of nightmares and sleep disturbances. Interestingly enough, it specifically decreases the abnormal nightmares that occur with PTSD. Normal nightmares and normal dreams have been reported to increase after its administration, as stress-related nightmares decrease. In addition, using it has led to a decrease in difficulties falling asleep and staying asleep. A decrease in PTSD symptoms other than those associated with sleep and decreased ratings of depression have also been reported. One study reported that prazosin was associated with increased total sleep as well as more REM sleep (consistent with return of normal dreaming) as well as an increase in the number of eye movements during a period of REM sleep and less time between falling asleep and the first period of REM sleep. Patients who had failed to respond to other treatments (e.g., SSRIs tricyclic antidepressants (TCAs)) have responded to this drug, which may indicate the superiority of prazosin to these other treatments. On the other hand, since in many trials patients continued on previous medications, these results may indicate prazosin's use as an additional medication to SSRIs, tricyclic antidepressants, and others.

Medications may improve sleep and decrease nightmares while psychotherapy may help with the reprocessing of traumatic thoughts. Since at least some good-quality sleep is required for optimal reprocessing, the two techniques are likely complementary.

While many of the trials have been open trials, a number of them have been placebo-controlled and crossover, providing compelling evidence for the effectiveness of prazosin. While protocols using up to 20 mg have been described, most studies have shown good results with 2 to 6 mg. Higher doses are divided, but doses of 2 to 6 mg are given at bedtime. A test dose of one mg is given, with the dosage increased every 3-7 days as needed until effective or until side effects decrease. While some patients experienced a drop in blood pressure when standing, many of these were also on anti-hypertensives or other cardiac medications. Prazosin's peak effect occurs 1 to 3 hours after being taken by mouth, its half-life is 2 to 3 hours, and its effect lasts 4 to 6 hours. The most common side effect is nasal congestion, with hypotension and sedation being rare. Dosage increases may occasionally be required. A return of sleep problems occurs when a person stops using prazosin, consistent with prazosin suppressing nightmares rather than helping in the processing of the underlying traumatic memories.

Thus, prazosin has demonstrated effectiveness in treating sleep disturbances and nightmares and has had a favorable effect on other symptoms of PTSD. Whether or not the decrease in symptoms, other than sleep symptoms, is secondary to improved sleep or primary, prazosin should be considered a first-line medication for sleep disturbance. It avoids the potential disadvantages of other agents such as tricyclic antidepressants, monoamine oxidase inhibitors (MAOIs), and benzodiazepines (used especially as tranquilizers), which include suicide risk, medical adverse effects, and in the case of benzodiazepines, substance abuse, and only has variable effectiveness.

Thoughts in the Field

Despite the attention paid to sleep disturbances as symptoms that occur with PTSD, certain investigators think the importance of sleep disturbances may have been downplayed and that certain types have been neglected. They contend that insomnia and nightmares should be considered core symptoms of PTSD, which may actually cause and perpetuate the disorder. Furthermore, they suggest that sleep-disordered breathing (SDB) (abnormal breathing patterns that interfere with sleep) and periodic arm and leg movements in sleep (PLMS) are important contributors to PTSD sleep disturbances and have been largely ignored.

In support of the idea that sleep disturbances may cause PTSD, they cite studies reporting that sleep disturbances occurring during the period of the stress reaction right after the stressful event are strong predictors of the development of PTSD. There is even a report that sleep dis-

turbances occurring before the stressor may predict the later occurrence of PTSD. The plausibility of these reports is supported by observations that sleep deprivation is well known to interfere with a person's ability to cope in general and to impair mood. Furthermore, as discussed, normal sleep, including REM, is thought to play a role in processing memories of trauma, which are central to PTSD. All of these may increase a person's vulnerability to PTSD. Consistent with this possibility, there are reports that early treatment of sleep disturbances during periods of acute stress may prevent the development of PTSD, and a number of studies have shown that treatments directed at sleep disturbances and nightmares may decrease other symptoms of PTSD. While treatments that focus on traumatic memories may decrease symptoms of PTSD, unless attention is paid to sleep disturbances, patients often continue to suffer from insomnia and nightmares, which, according to these models, may perpetuate PTSD.

The possible interactions of sleep disturbances and PTSD are compatible with several models of the relation of stress, sleep, and PTSD, each of which may hold for different patients: 1) Sleep abnormalities, regardless of cause, predispose one to the development of PTSD after an acute stressor; 2) Sleep abnormalities resulting from acute stressors may cause PTSD—i.e., sleep disturbances mediate the relationship between acute stress and PTSD; and 3) Sleep disturbances and other PTSD symptoms develop in response to the acute stressor, and sleep disturbances may be resistant to standard PTSD therapies that do not explicitly deal with them. If any of these three relationships hold, it is clear that treatments must explicitly focus on sleep disturbances to obtain optimal results with PTSD.

Fine-Tuning Understanding

Recent studies have indicated that PTSD is often associated with sleep-disordered breathing. Two explanations for this association have been advanced, both of which are plausible and may co-occur. As has been described, sleep, including REM sleep, is broken up in patients with PTSD. It has been shown in experimental settings that such sleep fragmentation is associated with an increased tendency for airway collapse. While such airway collapses may not be of magnitude to cause sleep apnea (a temporary suspension of breathing occurring repeatedly during sleep), with its easily observable arousals, gasping for breath, snoring, etc., they can cause hypopneas (abnormally slow, shallow breathing), which trigger microarousals that serve to restore sufficient airflow—i.e., hypopneas lead to further sleep fragmentation. This is known as upper airway resistance syndrome (UARS). These apneas or hypopneas have been shown to lead to nightmares or at least to impart negative emotional tones to the dreams associated with them. Thus, it is clear how a vicious cycle could result, leading to both nightmares and fragmented sleep.

Disruptions of other phases of sleep lead to lack of restorative sleep (sleep that leaves a person feeling that he or she has had a good night's rest). This decrease is often associated with daytime sleepiness and/or a lack of energy. Other signs of sleep-disordered breathing include: morning headaches, dry mouth, nocturia (waking up to urinate), and cognitive-affective disturbances, which include depression, anxiety, attentional problems, and memory disturbances, among others. Since upper airway resistance syndrome may require state-of-the-art technology for its detection, sleep-disordered breathing often remains undetected and hence ignored. Aside from the technical difficulties associated with the detection of subtle forms of sleep-disordered breathing, their neglect in part results from the tendency of both doctors and patients to focus most on the psychological aspects of PTSD as the explanation of symptoms, including sleep disturbances.

It has been proposed that in at least some cases, sleep problems that persist after psychological and/or pharmacological treatments result from sleep-disordered breathing continuing. Indeed, it has been shown that in some cases, treating PTSD by continuous positive airway pressure (CPAP) alone, which is the gold-standard treatment for sleep-disordered breathing, and without any psychological intervention, not only alleviates sleep problems but can also cause a dramatic relief from other PTSD symptoms, underscoring the potential causal or mediating role of sleep problems, including sleep-disordered breathing in the genesis of PTSD. Since many patients with PTSD find that continuous positive airway pressure may produce claustrophobia and anxiety, conservative approaches such as instruction to sleep on the side instead of the back, attention to nasal hygiene, or the use of nasal dilator strips may be used first. The latter techniques clear the nasal passages, thus decreasing airway resistance and, hence, mini-collapses. Periodic limb movements in sleep, which disrupt and fragment sleep are also increased in patients with PTSD, probably due to increased noradrenergic tone.

Psychological Treatments

In addition to medication and treatments for underlying sleep-disordered breathing, there are a variety of psychological approaches to the treatment of sleep disturbances. One of these, imagery rehearsal therapy (IRT), focuses on the symptom of disturbing nightmares. In this treatment, patients are taught techniques of imagery and how to apply these to their nightmares. Two

types of instructions have been employed that are equally effective.

In one of these, patients are asked to remember a nightmare, write it down, and then change the ending in any way they deem helpful and rehearse the new "dream." This is often done in group sessions. This technique has been shown to have ongoing positive effects on the number of nightmares per week and the number of nights without nightmares. Furthermore, insomnia is often improved because of the decrease in sleep disturbances resulting from nightmares and a decrease in protective behaviors adopted in attempts to ward off nightmares. (These protective behaviors include: delaying bed time, getting out of bed when waking rather than trying to get back to sleep, sleeping with lights on, substance abuse, and others). PTSD symptoms often decrease as sleep improves. Some patients find that imagery rehearsal is stressful and may increase fears. These negative effects may be decreased by first teaching patients how to employ pleasant imagery and having them start with less fear-inducing dreams (e.g., those not dealing explicitly with the traumatic events and limiting imagery rehearsal therapy to one dream per week).

A second form of psychotherapy dealing with sleep issues is Sleep Dynamic Therapy® (SDT), which includes a multitherapeutic focus on sleep issues in addition to imagery rehearsal therapy for nightmares. Sleep Dynamic Therapy consists of six two-hour sessions given weekly in a group format with an emphasis on psychoeducation and sleep-directed cognitive behavioral therapy (CBT). Sleep-directed cognitive behavioral therapy involves identifying stimuli that either interfere with or help with sleep, together with identification and abandonment of maladaptive habits that interfere with sleep. The psychoeducation includes identification of symptoms of sleep problems, including lack of restorative sleep, daytime sleepiness, and frequent awakenings, etc., which are often ignored because of the other obvious symptoms of PTSD. In addition, proper bedtime habits (good sleep hygiene) are taught.

Increasing Understanding

While the importance of nightmares and insomnia as symptoms of PTSD has long been appreciated, it is increasingly becoming apparent that this may be only the tip of the iceberg. Other types of sleep abnormalities such as sleep-disordered breathing and periodic limb movements in sleep are apparently common and may play a role in insomnia or nightmares. Importantly, not only are sleep disturbances major sources of distress for patients with PTSD, but they may play key roles in causing or perpetuating the disorder. They may also contribute to substance abuse, particularly of alcohol. While alcohol may help patients fall sleep, there is a rebound awakening. Furthermore, sleep worsens during withdrawal. These factors lead to increasing amounts of alcohol consumption. Fortunately, there are an increasing number of treatments available for sleep disturbances (e.g., imagery rehearsal therapy, Sleep Dynamic Therapy, pharmacotherapy, and, in some cases, continuous positive airway pressure). Yet in order for these treatments to be effective, the sleep problems must be noted. While it is hoped that clinicians are becoming more aware of the prevalence and importance of sleep disturbances, it behooves the patient to bring them forward if the clinician does not focus on the issue.

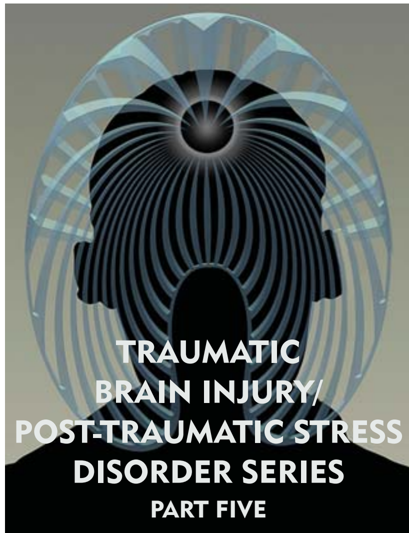
Patients' descriptions of sleep disturbances are the gold standard for their identification. While polysomnograpy (EEG, eye movement, and muscle activity measurements obtained during sleep) may be helpful in identifying and/or confirming some cases of sleep disturbances, there are many false negatives. This is because sleep laboratories, and even home monitoring, induce feelings of safety in many patients with PTSD. The partner may supply invaluable information regarding sleep-disturbance symptoms.

Determining a Person's Options

Further studies are required to determine how to optimally use the great variety of treatments now available for sleep disturbances, including nightmares, associated with PTSD. Among the questions requiring answers is this one: Is there one "best" treatment or, as is more likely, are different clinical patterns associated with different responses to a given treatment? Medications may improve sleep and decrease nightmares while psychotherapy may help with the reprocessing of traumatic thoughts. Since at least some good-quality sleep is required for optimal reprocessing, the two techniques are likely complementary. In view of this, should medications and psychological therapies then be used at the same time or in sequence? These and many other questions need to be answered.

Since it is likely that different treatments and/or their combinations may be required for a given patient, patience and persistence will be required while sequential trials are performed. But it is fair to say that this should be done with a spirit of optimism and conviction that an effective treatment regimen will be found. Not only may such treatments alleviate a decreased quality of life for individuals due to sleep disturbances, but they may also improve other PTSD symptoms. •

James Halper, MD, is Clinical Associate Professor of Psychiatry at New York University School of Medicine, working with the Brain Research Laboratories of NYU's Langone Medical Center, and Attending Psychiatrist at Lenox Hill Hospital. He has a private practice in New York City. He is board-certified in psychiatry and medicine.



The Role of Hope and Spirituality on the Road to Recovery

By Ralph DePalo, PhD

EP continues its exploration of the effects of combat on servicemembers who have returned home and are attempting to cope with traumatic experiences while reintegrating into the daily life of family, community, and work. This series focuses on traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), and related health issues. In this month's article, researcher Dr. Ralph DePalo explores the role that hope and spirituality can play in a servicemember's life by reviewing the literature which chronicles the findings of noted professionals working in the areas of hope and spirituality and the connection that these have to recovery. The article also examines hopelessness and its connection to depression. Understanding the psychological workings of the process of being hopeful or hopeless can help servicemembers cope with a newly acquired condition or disability. For family members, understanding hopefulness and hopelessness can shed light on what a loved one is going through so that more effective support can be offered.

Record numbers of returning military members are being diagnosed with post-traumatic stress disorder (PTSD). Lack of hope and feelings of despair are prevalent with this disorder. Finding hope in the midst of despair is a great challenge. A servicemember should seek professional help to navigate the internal feelings that he or she confronts on the road toward recovery.

Hope is endemic to human existence. Hope engenders the possibility that future good is possible. Although hope and its fruits are abstract, these abstractions become realities because of humanity's need for the vitality of life even in the face of trying circumstances. Intangible possibilities often become the base of reality for those facing uncertain futures. It is hope and all it encompasses that a person clings to for stability. This makes it a real touchstone for existence. To hope is to acknowledge the future. This crucial connection between hope and life is captured poignantly in Biblical references like Proverbs 13:12: "Hope deferred makes the heart sick, but desire fulfilled is a tree of life." The metaphor of hope as the tree of life is one that is frequently used. Spirituality researcher, Dr. E.R. Mudd, wrote that "…without hope we can exist and plod away, but in a hollow and somewhat robot-like manner. We need hope to connect us to the tree of life." Hope is essential for more than just physical and psychological well-being. J. Epperly affirms in his 1983 article on the spiritual needs of cancer patients that, "a sense of hope helps maintain the body's recuperative capabilities. … The maintenance of hope at whatever stage is a spiritual need." Because of its intrinsic connection to the future, hope is clearly a component of spirituality.

Author and researcher J. Bruhn acknowledges the "therapeutic value" of hope and describes it as "a way of coping." When hope is gone, despair, its antithesis, remains. A chronic condition can easily lead one to embrace such despair. The reality of living with a newly acquired disability must be replaced by the reality of hope so that the servicemember challenged with a disability can attempt to set reasonable and attainable goals. In his article entitled "Guidelines for Spiritual Assessment," author R.L. Stoll makes an interesting point when he states that unrealistic goals such as "cure and freedom from pain, discomfort, and distress" will lead to nothing but "doubt and disillusionment." Therefore, Stoll notes that hope must be based in reality so that a person can work "through the hard, cold facts and adapt so that life can be meaningful now and in the future."

When one's hope is shattered, there are three major behavioral responses that have been identified by researcher

E. Fromm. Those who exhibit the first response resign themselves to fate. They may have begun with average optimism, but when hope crashes, they lose their capacity to dream. A second group opts for isolation as a protection against the profound hurt of unfulfilled hope. Fromm also mentions that a third reaction comprises a leaning toward self-destruction since the energy once directed toward hopeful goals has no other positive channel. Again, according to Fromm, frustration stemming from an inability to achieve goals may result in one's directing destructive drives against oneself because that drive is no longer subverted by other goals.

Ironically, to have hope, one must first have a sense of its opposite—despair. In his article entitled, "An Invitation to Live," which appeared in the *American Journal of Nursing*, M. Vaillot points out, "…there is no hope, unless the temptation of despair is possible, and without hope, one is left with despair and hopelessness. The man who hopes uses trial, this tension which could reach the breaking point, in order to grow into being. For hope does not stop at things, it reaches out to being." The juxtaposition of hope and despair is the key to appreciating and fighting for one's existence. And hope itself is not one-dimensional. Hope must work in tandem with faith, again establishing that spiritual connection. As J. Hinton concludes: "an attitude of faith integrated into the ego coincides with successful defenses of effects."

Because of its intrinsic connection to the future, hope is clearly a component of spirituality.

Understanding the two-sided and seemingly contradictory view of hope as both concrete and abstract is essential to an appreciation of hope's value. K.J. Dufault notes that concrete hope consists of objects of hope that are within the person's realm of experience—things such as freedom from pain or other physical symptoms or the ability to perform certain tasks. The researcher also explores the transcendental nature of hope in the abstract, saying that abstract hope can be equated with transcendent hope. Transcendent hope is characterized by more esoteric and abstract goals while concrete hope tends to incorporate philosophical and theological meanings.

Hope is essential when a person combats the most primal fears of separation and abandonment, which can rise into a servicemember's mind during recovery. Hope is a connection to others even if bolstered vicariously. This communal instinct of hope, the symbiotic nature of its essence, is another facet worth exploring. In his book, *Images of Hope*, author W.F. Lynch says "…hope is an interior sense that there is help on the outside of us. … The act of taking help is an inward act, an inward appropriation, which in no way depersonalizes the taker. …" The author goes on to examine the symbiosis of hope and states, "…hope is not just about the future but a present reality as well. It is an experience of mutuality in the present. In this sense, we hope *with* as well as hope *for*." It is the presence of this mutuality that is the secret of all our hopes, and it is the absence of this mutuality that makes a person hopeless and despondent. The experience of

mutuality transforms our dread of abandonment and our terrors of isolation into communities of hope. Lynch goes on to say that "…the promise of a 'hallowed presence' is embodied hope that enables the seriously ill to live through the terrors of relationlessness." Lynch's concept again affirms and asserts hope's spiritual nature. In an article for the *Journal of Pastoral Care*, H. Anderson mentions, "…the kind of mutuality that generates hope includes but transcends hopelessness. It creates an environment in which we are held, in which our pain is held, in which the life long human need for attachment is maintained and nourished. The mutuality and sharing implicit in hope is captured by the language one uses when discussing it. Talking about the dynamics of hope, P. Pruyser says, "The language of hoping does not accentuate action verbs, but verbs of relationship. A hope is found, it is given, it is received…one hopes with, through, and sometimes for someone else. Hoping is basically shared experience…generated in relationship."

P.G. Taylor and M.D. Gideon describe hope as "a true vital sign—its presence can be as essential as a heartbeat." But when its vital presence is inattentive and missing, hopelessness fills the gap. J. Bruhn's work, mentioned earlier, also offers that "Hopelessness is also a way of coping. Hope and hopelessness reflect one's estimate of probability of achieving certain goals. Such estimates depend on whether a person has achieved a similar goal in the past and how effective plans have been proven to be in achieving goals." F.T. Melges and J. Bowlby comment that "a hopeless person believes that plans of action are no longer effective in reaching long-term goals and may, as a consequence, feel helpless."

In cases of hopelessness, depression can be an insidious and immediate problem. Melges and Bowlby acknowledge that the hopelessness and despair of a severely depressed person is characterized distinctively by certain beliefs and behaviors. The depressed person can no longer perceive and differentiate an effective connection between a plan of action and the aim he or she has set. This, in turn, leads to a loss of self-confidence, which results in the person's depending more on others. Lastly, there develops a reluctance and hesitancy to set long-range goals since previous investment of time and energy has resulted in disappointment, failure, frustration, and defeat. Depression, according to Melges and Bowlby, is most acute when that connection between action and goals is truly separated, perhaps because of a wounded servicemember's new physical or cognitive challenges.

The importance of this connection and its impact on depression is reiterated by others as well, although the terminology of discussion may vary. Psychoanalyst E. Bilbring suggests that when the ego is shocked into the reality of its own helplessness in terms of personal aspirations, a person will lose the incentive and motivation to pursue goals when the results seem so futile. Again, once the connection between action and results is lost, depression follows. R.S. Lazarus uses the term "reinforcers" and states that depression is a function of insufficient reinforcers. D. Maddison and G.M. Duncan talk about the "frustration of personal striving" resulting from illness or disability that inhibits and suppresses the fulfillment of plans. Researcher Martin Seligman discusses the direct correlation between helplessness and depression as do A. Beck and A.H. Schmale, who define hopelessness as a core characteristic of depression. Seligman takes things one step further and identifies two types of helplessness. One is universal and precipitated by factors and elements within the environment and the other is personal and fueled by a catalyst for both "internal and external helplessness." Since the connection between helplessness, hopelessness, and depression has been clearly linked, it is reasonable to assume that a servicemember challenged with post-traumatic stress disorder could become profoundly depressed since the depth of depression leaves no room for spirituality, which is at the core of hope.

R.J. Lifton says that "…despair predisposes to depression, prevents or delays recovery from it, (and) leads to its recurrence. When severe depression combines with despair, suicide is likely to be a serious option. To commit suicide, a person has to feel that the future is devoid of hope." S.M. Jourard suggests that a person commits suicide because his or her perception has become so distorted and twisted as to feel that others want him to stop living. These extreme and distorted thoughts, once again, show the communal nature of hope. When the relationship to community of man, present and future, is lost, the notion of spirituality is also obliterated and annihilated. One can no longer look to others in an effort to gain assurance that some hope still exists. According to W.F. Lynch, "…hopelessness engenders isolation, shame, and withdrawal. Hopelessness is a silent admission of total defeat and a reluctant resignation to the status quo, to a life devoid of human love."

Hope has its roots in spirituality. Spirituality is a phenomenon that is evident in the lives and traditions of all cultures and people. M. Burkhardt states that "spirituality is understood to involve a personal quest for meaning, to relate to the inner essence of a person, to include a sense of relationship with self, others, nature, and ultimate other, and to be the integrating factor of the human person." D. Ley and I. Corless mention that "the concept of spirituality transcends such separations and manifests itself as a state of "connectedness" to God, to one's neighbor, to one's inner self. It has variously been described as man's relation to the infinite, as the capacity to be energized from beyond ourselves, and as the basic quality of a person's nature—what the person is and what the person does. Inherent in all of these definitions is a sense of dynamism, of movement, or reaching out."

The literature is filled with references to the term *spiritual*. R. Dunphy discusses

the term spiritual as "…the dimension of the human experience which transcends the immediate awareness of one's self. It is manifest in a variety of experiences: when someone questions the purpose of existence, when someone is filled with a sense of personal limitations and an awareness of the need to depend on a greater power, or when someone feels the joy of loving a friend unconditionally." S. Granstrom discusses the term spiritual as a broader concept than that usually referred to in the formal sense and, therefore, not necessarily having a religious, denominational connotation.

M. Hay suggests three categories that are universal to all spirituality, which accounts for the way in which spiritual development occurs in human experience. First, spirituality occurs in the context of communities of which one is a part. Secondly, spirituality results in an enhancement of one's inner resources for dealing with the challenges of life, including that of dying. And, finally, spirituality's objective is the giving of meaning to one's reality. This is to say that the scope of spiritual concerns encompasses matters of community, inner resources, and meaning.

Hay also discusses spirituality as an experience and capacity for "transcending one's working realities (physical, sensory, rational, and philosophical), in order to love and be loved within one's communities, to give meaning to existence, and to cope with the exigencies of life." Hay points out that when a person's capacity to transcend "working realities" is reduced through suffering, spiritual diagnoses may be made and treatment alternatives considered.

Spirituality has been described as a continual search through a relationship between an individual and God, to find the answer to the question of "what is the meaning of life?" This search may be directed through an adherence to an established religion, and acknowledgment of a higher being transcends one's physical being, or even through the principles of agnostics or atheists. The common denominator is the quest for meaning.

Therefore, in other words, it may be that if a servicemember with a chronic disability has a *why*, then he/she can face the *how* of coping with that disability. Thus, the spiritual question regarding a chronic condition becomes its purpose, not its mechanism.

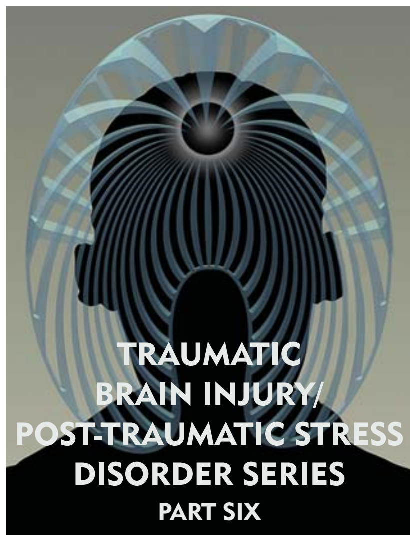
Victor Frankl, who lived through the Holocaust, has provided poignant arguments regarding the integrative resources of survivors in seeking meaning amidst the tragedy of the Holocaust. His existential philosophy seeks to find and realize values as a way of giving meaning to existence. He himself, a survivor of concentration camps, proved that even under extreme situations, human beings can make moral choices. He found in the camp a few prisoners who transcended their condition, and he used this as evidence for a positive and even optimistic philosophy. "We who lived in concentration camps can remember the men who walked through the huts comforting others, giving their last piece of bread. They may have been few in numbers, but they offer sufficient proof that everything can be taken from a man but one thing, the last of human freedoms, to choose one's attitude in any given set of circumstances, to choose one's own way." Frankl also quotes Nietzche in *Man's Search for Meaning*. "If we have a *why* we can endure any *how*." Therefore, in other words, it may be that if a servicemember with a chronic disability has a *why*, then he/she can face the *how* of coping with that disability. Thus, the spiritual question regarding a chronic condition becomes its purpose, not its mechanism.

J.H. van den Berg suggests that "the part of life that is now neglected is the life of the spirit." He hypothesizes that the helping relationship can be of greatest assistance to people by offering them an opportunity to discuss the more spiritual aspects of life. Within this helping relationship exists "an essential constituent" that Kohut describes as empathy. Kohut described empathy as "the capacity to think and feel oneself into the inner life of another person." Kohut also describes empathy as threefold: "The recognition of the *self* in the *other* is an indispensable tool of observation, without which vast areas of human life…remain unintelligible; the expansion of the *self* to include the *other*, constitutes a powerful psychological bond between individuals; the accepting, confirming, and understanding human echo evoked by the *self*, it is a psychological nutrient without which human life as we know it could not be sustained."

The importance of hope on the road to a servicemember's recovery cannot be underestimated. Spirituality is the seat of hope, giving one a sense of meaning in the face of adversity. With hope, future recovery becomes possible. •

For a copy of this article with references, make request to jhollingsworth@eparent.com.

Dr. Ralph DePalo received his B.A. in Gerontology from Iona College. He went on to receive his Master's Degree from Fordham University and received a full scholarship from the National Institute of Mental Health in Gerontological Community Mental Health. He received his analytic post-graduate certificate in psychoanalytic training from The Alfred Adler Institute in New York City. He obtained his PhD in Clinical Social Work from New York University's Ehrenkranz School of Social Work. Dr. DePalo currently is an adjunct associate professor at New York University. He teaches advanced Clinical Practice with Individuals and Families in the Graduate School of Clinical Social Work and psychology in the undergraduate School of Continuing Professional Studies liberal arts program. His current research interests are post-traumatic stress disorder, spirituality, depression, and aging.



Origins of Anxiety from Infancy to War

By Ralph Cancro, PhD and Lorraine Cancro, MSW

EP continues its exploration of the effects of combat on servicemembers who have returned home and are attempting to cope with traumatic experiences while reintegrating into the daily life of family, community, and work. This series focuses on traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), and related health issues. This installment explores the origins of anxiety.

Interview with An Anonymous Marine

When I was five years old, my family was in a terrible car accident. We were hit by a drunk driver. My mother was killed instantly and my brother left in a permanent coma. I remember thinking we were being hit by an ice truck since there was a lot of shattered glass. When the car stopped, my father said, "Are you okay?" and pulled me out of the wrecked car. When I saw my mother, her neck was pulled back more than humanly possible, and she had a big gash across her forehead. My father kept shaking her saying, "Lee, wake up. Are you okay?" That was the last time I ever saw my mother. I have no recollection of what happened to my brother, which haunts me to this day. In the emergency room, a nurse came to me and put me on her lap saying, "Your Mommy went to heaven." At first, I couldn't comprehend what she meant, and then when I understood, I started to cry. Soon after, my father came out and walked over to me and said, "Real men don't cry."

The years passed, my father eventually remarried, and my brother continues to remain in a coma. After high school, I decided to join the United States Marine Corps.

Upon entering the Marine Corps, I became immersed in training, my duty, and my schooling in an effort to improve myself and become a good Marine. I was constantly volunteering to go on any assignment that entailed risk. My first assignment was extracting land mines in certain areas, since I was trained as a combat engineer. In my first exposure to combat, I witnessed a Marine get blown up, which gave away our position, subsequently drawing attention from enemy forces who opened fire. My brain felt like it was rattled from the explosion, but eventually, I got up, carried the wounded Marine to safety, and began firing back at the enemy in a murderous rage, killing several of them.

After returning to my base camp, I volunteered for another assignment. I had thought we were supposed to be building refugee camps, but we ended up receiving enemy fire from guerrilla forces. This resulted in more loss of life. At the end of my tour of duty, I returned to the United States to serve in Headquarters Marine Corps, Quantico.

After a time, I began to have nightmares, waking up with incredible feelings of anxiety, shortness of breath, and heart palpitations. I started experiencing these feelings during the day, along with vivid memories of the traumatic events I'd experienced overseas. I am a devout Catholic, and I began having feelings of deep remorse for the people killed in combat. This caused overwhelming anxiety for me. I had brought up some of the details of this experience to my ex-wife, and she said, "You are a Marine, and you are supposed to be stronger than that." I felt very alone and embarrassed to express my feelings.

I was honorably discharged from the Marine Corps, but the overwhelming feelings of anxiety remained. I experienced it quite intensely at my first civilian job, due to a very stressful work environment. I was working with equipment worth millions of dollars. The stress caused me to have angry outbursts with my peers and superiors. My boss, a Vietnam veteran, also had anxiety and was prescribed Valium. He noticed my anxiety and offered me one of his Valiums. The first time that I took one I felt no anxiety or mental anguish whatsoever. I was completely relieved, so I would keep asking my boss for Valium, which he was willing to give me. I finally went to the doctor and got a prescription.

The history of mankind is replete with trauma. It has long been known that traumatic events can produce serious emotional reactions. Whenever troops are deployed, psychological casualties will result. With the advent of post-traumatic stress disorder (PTSD) as a distinct psychiatric diagnosis, victims of severely stressful events are regarded as suffering from a specific mental disorder, originating from a specific traumatic event. The *DSM-IV* (1994) clarified Criterion A of PTSD: "The person experienced, witnessed, or was confronted with an event(s) that involved actual or threatened death or serious injury…." Recurrent and intrusive distressing recollections and dreams of the event (including images, thoughts or perceptions, and dissociative flashback episodes, illusions, hallucinations, and other instances of acting or feeling as if the traumatic event were recurring) characterize Criterion B.

The Nature of Anxiety

Anxiety has played a major role in the development and history of man. Anxiety is a major symptom of post-traumatic stress disorder (PTSD). To understand the origin and nature of anxiety, we must return to a person's childhood to get the full picture.

Powerful Influence in Maturation

Anxiety is prominent from the standpoint of individual character formation and personality development. Infantile behavior and childhood standards are substantially developed and modified so as to conform according to the wishes of significant adults.

This modification is accomplished largely through the desire for approval, acceptance, and love, the absence of which gives rise to anxiety. Anxiety can be destructive or constructive, or both.

Principle of Universality

Anxiety is experienced universally; everyone seeks to avoid anxiety. As a

I still continued to have some anxiety as well as nightmares, but I always knew I could turn to the medication for relief. Knowing alcohol and medication could give me relief, I started using them more and more. I finally received medical help through a good friend of mine who introduced me to a psychiatric treatment team at a prestigious hospital. Since then, my anxiety level has lowered a great deal, although in situations such as large crowds, traffic—basically any situation that is not in my control—I still experience intense anxiety. Occasionally, I take more meds than are prescribed and feel the need to take the edge off but not to completely numb myself as I had before treatment. I don't know when or if my anxious feelings will ever completely go away, but I continue to go to therapy twice a week and receive medication modification to continue making progress.

I know I am not alone with respect to the problems I face. I know there are many others who have experienced much worse situations than I did. The purpose of telling my story is to alert others to not give in to overmedicating themselves and other negative behavior, such as the use of alcohol in combination with medications. One of the best ways of dealing with this is to talk about your feelings with people you trust. I recommend that you find a therapist to help you open up. Don't be discouraged if you don't find the right therapist or psychiatrist right away. Keep looking around until you find the one who makes you feel safe enough to expose all the pain you are carrying. Even with this help, you may still suffer from some anxiety, but always keep in mind that there are others who experience similar anxiety. Everyone has a cross to bear. It may not be as bad as yours, but they don't manufacture anxiety medications just for us. Post-traumatic stress disorder (PTSD) is a widespread problem. There are those experiencing PTSD who are victims of sexual and child abuse, domestic violence, natural disasters, terrorism—basically, anyone who experienced a situation of life-threatening danger. Any of these experiences can emotionally scar you. Remember, you are not alone in your struggle with this diagnosis, and there are people who want to help. Remember also that PTSD is not something to be ashamed of.

A final caveat: The improper use of illicit or prescription drugs will temporarily alleviate symptoms but will cause you more complications down the road. Don't be afraid to tell your psychiatrist if the medicine is not working. Make sure that it is right for you. Combine medication with therapeutic work. The combination is what has helped me the most. You must express your deep-rooted feelings to get rid of what ails you. Pent-up emotion, anger, anxiety, and pain is equivalent to a pressure cooker. All these feelings will eventually overwhelm you and will lead to inappropriate blow-ups towards family and friends, especially those who care about your well-being the most.

Don't give up finding the person you can confide in. You will struggle, but we all endured struggle, whether in boot camp training, or combat, and we have always been in stressful situations. This is a battle, too, and you can't give in to temporary fixes. Remember that we've honored our country, so don't disgrace your honor by destroying yourself with drugs or alcohol. I have tons of medals hanging on my walls, tons of certificates, letters of commendation, and I'm not going to disgrace all that with drugs and booze. There are men that came before us that have made these medals possible to receive, and we don't want to disgrace their valor and bravery as well as our own.

This narrative was penned by a concerned former United States Marine Corps (USMC) Non-Commissioned Officer (NCO). Lorraine Cancro, the co-author of this feature article, had the opportunity to talk with him extensively as the article was researched and written.

result of unconscious efforts at its avoidance, mental mechanisms come to be employed and psychological defenses are evolved.

Symptom formation may result. The symptoms, which develop in emotional illness, can be considered the result of defensive efforts versus anxiety.

Anxiety: Normal or Pathological

Anxiety arises in response to danger or threat. The source of this danger or threat is largely unclear. Anxiety can comprise an alarm-like reaction, appearing when there is a threat to the person and becoming abnormal only in terms of its intensity, the cue which evokes it, and the form that it takes.

Anxiety Defined

Anxiety is the apprehensive tension or uneasiness that stems from the subjective anticipation of imminent or impending danger in which the source is not always known or recognized.

Thus, the reaction that is experienced is out of proportion to any known stimulus or clearly recognized threat or danger. Its overall net effect for the individual concerned can be constructive or destructive.

In contradistinction, fear is the emotional response to a consciously recognized and usually external threat or danger.

Anxiety and fear are accompanied by similar physiologic changes. These changes are an important part of the individual's total response to crisis, and include all those preparations intended to help prepare the person for any physical or other kinds of activity that may seem necessary to cope with that threat.

Anxiety may also be defined as fear in the absence of an apparently adequate cause, sometimes referred to as free-floating anxiety.

Emotional Conflict

There is a relation to anxiety and its role in the initiation of emotional symptoms. A clash exists between two emotional forces: instinctual drives versus prohibiting personal and social standards.

The result of the above is conflict. Conflict is defined as the clashing of two opposing interests. Emotional conflict takes place between the instinctual drives (id) of the personality and the demands of the conscience (superego) or society. The ego serves as the mediator but is also the battleground. Emotional conflict may be conscious or unconscious; the latter has the greater psychopathological import.

Conflict/Anxiety/Repression/Symptoms

Customs and restrictions of society block or frustrate fulfillment of instinctual drives. The most important and basic intrapsychic conflicts from the standpoint of psychopathology occur or relate to the sexual and aggressive types of drives. These drives may be categorized as those concerned with the preservation of the race and those relating to self-preservation.

Sexual thoughts and strivings and those with a hostile, aggressive, or acquisitive coloring are not only likely to be stronger drives, but also are more likely in turn to be met by stronger opposition from personal or social standards when there is conflict.

It is the repressed (unconscious) or partially repressed conflicts which are most important in symptom formation. The repression takes place as an attempted resolution of the conflict. When lifting of the repression is threatened, anxiety is subjectively experienced.

This is one reason interpretations must be carefully timed; otherwise it can swamp the personality with anxiety.

Emotional Conflict Defined

An emotional conflict occurs when clashes take place between one's moral, social, and personal standards on the one hand, and one's egocentric and instinctual strivings on the other.

Anxiety arises from conflict. Anxiety leads to repression. The repressed data leads to symptom formation.

The infant possesses a keen ability to sense intuitively the presence of all kinds of emotional feelings, especially including anxiety, indifference, resentment, and hatred.

Instincts and Acculturation

The so-called Id drives (instinctual drives) are universal in the infant.

As the capacity of a child to achieve the objects of his basic instinctual needs increases so does his learning of control, modification, and sublimation. The capacity and the control develop together. Therefore, the increase of one kind of capacity (i.e., for securing gratification) is simultaneously accompanied by an increase in the other kind of capacity (i.e., for inhibitory power and control).

A child's success in "learning" these controls is one of the most important areas of child development. Our ability to help him or her organize these controls is one of our most important contributions as parents. This is called "learning" or "acquisition" and involves processes such as interpretation, adaptation, identification, conditioning, sublimation, and others.

The underlying presence of intrapsychic conflict with the resulting tension, attempted defenses, and sought-after resolution and its disguised outward expression is to be recognized today as the central dynamic concept in the origin of the neurotic and the functional psychotic's emotional illness.

Attempted Defenses Against Anxiety: Emotional Conflict/Anxiety/Internal Defenses

Internal defenses are called mental mechanisms, mental dynamisms, ego defenses, and defense mechanisms. These mental mechanisms represent attempts to reach solutions and compromises in response to serious conflicting drives.

Sources of Anxiety

During infancy and childhood, certain important prototypes or patterns for later responses may be established.

Precedents which are so established are often repressed or partly repressed. These precedents, however, may later determine the emotional response of an individual in a similar given situation.

Infancy and early childhood anxiety arise as a consequence of:

- **Helplessness:** The basic helplessness and dependence of the infant and young child gives rise to considerable anxiety. Infancy and childhood are long for the human organism. The development of resources to cope with the external world is a long, difficult, and gradual process.
- **Separation Or the Threat of Separation:** In normal personality development, security develops as dependency decreases. Separation no longer results in anxiety. Such an ideal sequence does not always transpire.
- **Deprivation and Loss:** Sudden environmental change is always a threat to the infant. The parental attitude can be a most vital and important agent or reassurance in these situations. Emotionally traumatic meaning can be one example of important infantile deprivation.
- **Frustration/Anger/Hostile, Aggressive Impulses/Conflict to Anxiety:** Anxiety is present because of threatened loss of control and in view of the threat of retaliation.
- **Emotional Contagion of Anxiety:** An emotional kind of contagion of anxiety takes place intuitively and through identification, largely from parents. The infant possesses a keen ability to sense intuitively the presence of all kinds of emotional feelings, especially including anxiety, indifference, resentment, and hatred.
- **Disapproval or Fear of Disapproval from Significant Adults**
- **Common Threats From the External Environment:** These would include accidents; changes in temperature and position; surgical procedures; parental disharmony; and excessive emotional stimuli.
- **Common Internal, Environmental Threats:** These would include hunger, thirst, illness and other physiological needs, actual physical punishment or threat of physical punishment, or abuse.

While some of the above do not seem to be physical in nature, they represent, at least in part, a potential physical threat to the infant's equilibrium from the external environment.

Specific events that are emotionally traumatic during childhood—i.e., the death of a parent, sibling, or close playmate; frights; certain accidents; sexual assault, etc.—may lead to acute anxiety reaction or may contribute to various types of psychopathology.

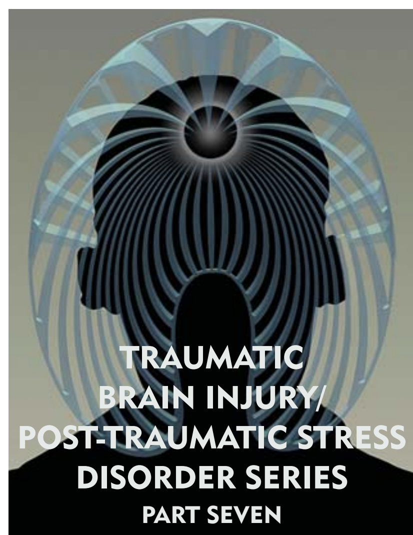
- **Conditioned Responses:** Exposure to painful experience on a sufficiently frequent basis may cause the individual to experience anxiety later in life when some of the sensory cues of the earlier experience are present.
- **Superego Conflict:** Superego develops largely in response to the real or assured attitudes of significant persons in early life. By the acceptance and internalization as well as by the rejection (and sometimes with the reaction of the opposite; i.e., reaction formation) of the standards of these significant persons, the conscience gradually takes form. The role served by external censors is now assumed by internal censors. To the extent that this internal censor is successful as a replacement for previous approval or disapproval from external sources, the importance for approval from outside sources decreases. With development of the superego, conflict becomes increasingly possible; i.e., conflict between superego and id.
- **Threats to Self-Preservation:** Environmental threat may lead to anxiety. The threat may be physical or psychological. Anxiety in this connection may be referred to as situational (e.g.: illness, accidents, war, natural catastrophes, terrorism, riots).

PTSD is a multifaceted disorder, involving not only post-traumatic stress but difficulty in other areas of functioning. The goal of treatment is the gradual lessening and modification of stimuli through various antianxiety exercises. When the person begins to cope adequately with the stresses of everyday life, treatment is considered to be successful. PTSD is a significant aftermath of war. Government and military leaders must calculate the cost of war in terms of psychological as well as physical casualties.

By raising awareness of the symptoms of PTSD, more veterans and their loved ones may be able to recognize if they are suffering from this debilitating disorder and pursue the treatment for recovery that will lead to a more meaningful life. •

Dr. Ralph Cancro received his PhD in Clinical Psychology from Columbia University in New York City. He has practiced in this area of psychology for 53 years. At the Burke Rehabilitation Hospital in White Plains, NY, he served as Director of Psychological Services for 23 years and as Co-Director of Mental Health Services for a similar period of time. While at the Burke Rehabilitation Hospital, in addition to clinical and supervisory responsibilities, he initiated and participated in research projects, lectured in seminars, and conducted workshops at colleges and universities in the tri-state area. Following his tenure at the Burke Rehabilitation Hospital, he was an attending psychologist at St. Agnes Hospital and Medical Center in White Plains, NY.

Lorraine Cancro, MSW is a Clinical Social Worker and Director of Business Development for EP Global Communications, Inc. She collaborates with scientists in the departments of Psychiatry and Neuroscience at New York University (NYU) Medical Center and Bellevue Hospital in research on traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD) among returning military members. She is currently collaborating with these researchers for the continued TBI/PTSD series in *EP* magazine's military section as well as for the upcoming *EP LiveOnline* TBI/PTSD online seminar series.



On the Road to Recovery - Self-Discovery: The Crown Jewel of Psychotherapy

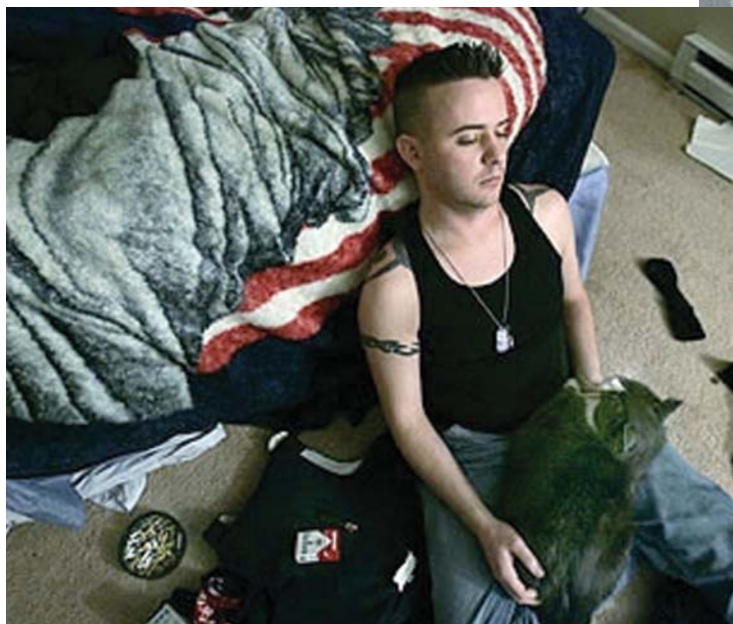
By Lorraine Cancro, MSW

Below are the words of a serviceman the author interviewed regarding previous excessive drinking and drug use, the origins of which sprang from his suffering from Post-Traumatic Stress Disorder (PTSD). When asked, "What made you pursue both individual psychotherapy and Alcoholics Anonymous?," he responded with the following:

I was drinking to forget. I was drinking and using cocaine to get away from my feelings of anxiety and guilt. I knew somewhere within me that I had killed the enemy in Iraq out of duty to my country, but I still could not escape the look of terror in the eyes of my enemy right before I shot him. I don't remember much after having shot him but there isn't a day that passed that I did not relive the moment I killed that man. I cannot escape the horror of being so close to someone who was very much alive and in one shot, mine, he was gone. I did that. I destroyed a person. His family, his loved ones, his friends—will never be the same. He was the only man whose eyes and terror I faced as I shot him. Any other acts of destruction did not impact me as this one did.

I drowned my feelings of remorse in liquor, not to mention drugs. I didn't feel worthy to live. I should not have survived my enemy. Why should I be alive and he dead? It was seconds that separated his death from my own. As I rushed towards him I wondered, *"Would I be predator or prey?"* My saddest realization was when—on one long, cold night sitting in my home indulging in drugs and alcohol—I recognized not only was I the predator, but prey. Seeing this, I was now on a path of self-destruction…a mile wide.

Thanks to God and my brother's intervention, I met with an incredible therapist who recognized the pain that I was enduring. He insisted that to continue working with him, I'd have to attend Alcoholics Anonymous (A.A.). I felt ashamed to have to resort to that. He told me that I would not heal from what ailed me without a two pronged approach. I needed both individual therapy as well as group work, which he said can offer miraculous results. I have to tell you, without both forms of treatment, I would not be alive today.



Group Support Through Alcoholics Anonymous (A.A.)

Returning veterans who suffer from PTSD may develop issues of chemical dependency. Many suffering with PTSD self-medicate using alcohol or drugs to relieve excessive feelings of anxiety and depression. Treatment should include individual psychotherapy but for long-term sobriety, Alcoholics' Anonymous'

Twelve Step Program is also of value to many. A.A. offers a safe haven for individuals who are afflicted with alcoholism and drug addiction. Those who join and remain in the Twelve Step Program find the support to reclaim their "self" and rebuild their lives. The program "works if you work it," according to an old A.A. adage. I attended an A.A. "open meeting" (in which someone who is not alcoholic but would like to learn more is welcome to attend; "closed meetings" are only for those who are working on recovering from alcoholism) in an effort to learn more about the program. It was an incredible experience.

From the start of the open discussion, the members introduced themselves and then spoke about their efforts to do the right thing. One by one, they volunteered their stories of struggle and strength acquired from their participation in the A.A. group. Many echoed the sentiment that they felt most at home at their A.A. meetings and that they knew they were always one arms length away from a drink. A.A. gave them the support not to reach for it.

Alcoholics and drug abusers come to A.A. when their lives have "become unmanageable," a phrase found in Step One of the Twelve Steps. At the root of Step One is acceptance of ones' powerlessness over alcohol and drugs. In A.A., the members share their trials and tribulations, which stem from their addiction, within a safe forum. The alcoholic or addict has to get in touch with himself or herself and discover the "personality defects" and "shortcomings" which helped contribute to the addiction in the first place. Some of these defects are self-centeredness and immaturity. Immaturity causes people to respond to life in a self-defeating way. As the alcoholic comes to accept that drinking is out of his or her control, regular attendance at A.A. meetings will help support their recovery.

According to Robert Cancro, MD, "In the early 1960's, the first rehabilitation ward in NYC was established at King's County Hospital under my direction. Very quickly I brought A.A. onto the unit as part of our treatment program. Interestingly, I was not permitted to attend the meetings because I was not an alcoholic but nevertheless I was able to realize the enormous value of their program. While some patients were not interested, or at least were not interested at the time, those that got involved benefited enormously. My experience with A.A. in the years since then has only reinforced my positive impression."

Veterans who have survived traumatic events and are indulging in excessive alcohol or drugs to "deal" with their lives, problems, and feelings should strongly consider joining A.A. What A.A. gives to those who are chemically dependent is a safe environment to learn more healthy ways of coping with life's stressors. Drinking and using drugs is maladaptive and has to be replaced with better coping skills. In A.A. members find refuge with others who have been down the same road. A.A. offers a sense of community to those making a real effort to improve themselves and reach a level of sobriety. Groups are very successful because the members identify with almost all others in the room. Through identifying with other members, one's poor sense of self begins to improve.

A foundation for recovery in A.A. is the ability for the alcoholic to believe in a power greater than self. It is described in the Twelve Steps and A.A. language as God or a "higher power." Members are encouraged to turn their will and lives over to this "higher power." The idea behind this is that the addiction is beyond alcoholics' own capability to master it, and that this power can help them, and aid them in rebuilding their lives. The thought is that if an alcoholic or addict has given a "lower power"—for example, alcohol or drugs—the power to "help" deal with his or her life, then why not give a Higher Power a chance? While many members experience "spiritual awakenings" during their recovery, A.A. does not dictate what its members' spiritual beliefs should be. The Twelve Steps give members a sense of spirituality, not religiosity. The members stress that there is a very large difference between the two.

Cravings are a natural part of the recovery process. Relapse is something that is expected. The point is to get back "on the wagon" and continue working the Twelve Steps. There is no race to complete the Twelve Steps. One could remain on Step One or any other step for years. It is the journey not the destination that is important to reclaim your mental, emotional and physical health.

Given that a stigma is attached to being labeled an alcoholic and or drug abuser, many who suffer are deterred from getting treatment and joining the program. Those who are critical of the afflicted should remember that alcoholism or drug addiction is a disease. It affects all socioeconomic levels of society. It does not discriminate. When someone who is pursuing help is judged, a great disservice is done to them. Being an alcoholic or drug user has nothing to do with your character, strength, or will. It is a progressive disease.

Many alcoholics/addicts suffer from low self-esteem. At the meeting, certain members spoke of themselves in a deprecating manner. One man said that he did not like himself. One of the members told me that: "A.A. takes a negative personality and transforms it into a positive personality."

Alcoholics/addicts have depended on alcohol and drugs to feel better about themselves, but the relief is illusory and fleeting and the cost high - not only in money but self-esteem and physical health. With A.A. the alcoholic is given a chance to slowly, day by day, learn new ways to lead a more fulfilling life. They now use the program and a Higher Power to lead them to a life filled with self-awareness and fulfillment. They see others changing through the program and that gives them role models to follow as they rebuild their lives.

Still, with all of this support, the road to recovery is not an easy one. All of the members are aware that the process of recovery will never be finished. This is a lifetime commitment. One of the members poetically said, "I will always be an alcoholic, but I will

not always be a drunk." The belief that there is no cure for alcoholism resonated loud and clear. This was a day-to-day battle that would be won with perseverance and support from other members in A.A. Sharing is the key to the program. You can be in the program 26 days, months, or years, but the basics never change.

There is an implicit recognition that recovery from alcohol addiction depends upon the ability to share feelings and weaknesses with others, especially those who have been successful in achieving sobriety. No one has a better understanding of this disease than someone who has been afflicted by it. A.A. encourages members to ask someone within A.A. to be his or her "sponsor," someone who can answer questions and confidentially support the person on a regular basis, in addition to the support received in group meetings. As recovering alcoholics themselves, sponsors can offer immense empathy for the persons they sponsor.

As a result of one or more traumatic experiences, a healthy individual can develop maladaptive behaviors. Trauma is an experience that produces thoughts, emotions, and behaviors that were not present before the trauma occurred.

Through A.A., alcoholics recover their "self" and their connection to a Higher Power. They realize that they are not alone since they are a part of a larger group or community of those who have suffered from the same addiction. They learn to take care of themselves and to make a commitment to a group that rebuilds their sense of self and their sense of being connected to a beneficent source. They become centered on this power instead of on alcohol or drugs. The power that is unseen becomes their strength. Before, they turned to alcohol to feel "better." Now they have a Higher Power within the group and within themselves. They heal the shame that they had acquired through their maladaptive behavior. All of the members were on the path to building a solid self-identity. All were at different stages on that journey, but the destination was the same. They seemed to find this small room in the back of a church a safe place to not only expose their feelings, but to feel validated. It is interesting that addicts usually find one another when they are acting out their destructive behavior, but it takes addicts in recovery to pull one another off the path to destruction. It was beautiful to see people share their trials, fears, and victories over the battle with addiction. They truly were courageous in their efforts to heal themselves and one another. Non- addicts have a lot to learn from A.A. members' courage, openness, and perseverance to heal themselves and one another. Everyone, addicts and non-addicts alike, has "inner demons" and the lesson of the Twelve Steps and group support is that nothing is healed alone.

Individual Therapy

Another form of treatment that veterans who suffer from Post-Traumatic Stress Disorder should consider, coupled with A.A. if necessary, is individual psychotherapy. Post-Traumatic Stress Disorder is understood to be caused by a traumatic or life-threatening experience. Traumatic experience can result in diagnoses such as adjustment disorder, mood disorder, attention deficit disorder (ADD), alcoholism, and substance abuse.

A traumatic experience impacts the survivor for life. As a result of one or more traumatic experiences, a healthy individual can develop maladaptive behaviors. Trauma is an experience that produces thoughts, emotions and behaviors that were not present before the trauma occurred.

The same external event will have different effects on different individuals. Trauma is experienced externally but the actual trauma is internalized. Certain individuals are more resilient than others due to social support, a strong sense of self, how they perceived the experience, etc. It is impossible to predict how each person will respond to the same traumatic event.

Trauma impacts the brain when a person experiences a traumatic event as overwhelming or life threatening. If the individual doesn't experience it as traumatic they may not develop post-traumatic stress disorder. In other instances, individuals claim they were not shaken by a particularly traumatic event and it is denial speaking. Denial may fool the conscious mind but the truth manifests itself through the brain and body. The symptoms will emerge in some form.

Effective treatment is at the heart of the recovery process. Therapy is a huge challenge, but facing it and conquering it is all the more sweet. Therapy will help give trauma survivors new coping skills.

The primary goal of the therapist is to impact three areas related to the individual: thoughts, emotions, and behaviors. First, a therapist works on reframing a survivor's thoughts about the trauma in an accurate and healthy way. Second, a therapist works with deconditioning a survivor's affective (emotional) responses to the trauma. Third, while the survivor speaks of the traumatic event, they must be encouraged to learn new responses to the stress of the experience, thus helping to eliminate maladaptive behaviors such as excessive drinking or drug abuse.

A survivor's thoughts or perceptions regarding their traumatic experience are both the problem and solution. A therapist needs to decondition anxiety, fear, and other heightened emotions that exist in a traumatized individual. Putting the survivor in touch with his/her bodily responses to feelings associated with trauma is part of the treatment process. Trauma is associated with increased heart rate, breathing, blood pressure, etc. Being more aware of these sensations, an individual is guided to complete the cycles of tensing and relaxing. In so doing, the

Resources Available to Servicemembers and Veterans

The Department of Defense (DoD) and the Department of Veterans Affairs (VA) have developed several programs to help servicemembers and their families. The servicemember can find help at the local Troop Medical Clinic (TMC). Most TMCs have a behavioral health specialist on their staff.

Many installations provide meeting space for Alcoholics Anonymous (A.A.). Ask your installation Army Substance Abuse Program (ASAP) managers for more information.

Take advantage of the Post-Deployment Health Reassessment (PDHRA) Program, "a program mandated by the Assistant Secretary of Defense for Health Affairs in March 2005 and designed to identify and address health concerns, with specific emphasis on mental health, that have emerged over time since deployment." More information can be found at: http://www.pdhealth.mil/dcs/pdhra.asp.

"RESPECT-Mil is a treatment model designed by the United States Department of Defenses' Deployment Health Clinical Center (DHCC) to screen, assess and treat active-duty Soldiers with depression and/or PTSD. This program is modeled directly after a program that's proven effective in treating civilian patients with depression. Several of the internationally-known experts who developed the civilian model have helped DHCC adapt the approach for military primary care use." RESPECT-Mil has a new website at http://www.pdhealth.mil/respect-mil/index1.asp.

In May 2009, TRICARE announced (at http://www.tricare.mil/pressroom/news.aspx?fid=526) a new web page for TRICARE beneficiaries seeking help: "The web page supports two Department of Defense initiatives: promoting awareness about post-traumatic stress disorder treatment, and assisting returning servicemembers by providing expanded counseling services. It also provides information for family members dealing with deployment stress, moves, and separation situations. When beneficiaries are looking for help, http://www.tricare.mil/mentalhealth is the starting place to find information about common concerns, resources, and how TRICARE's behavioral health benefits work. Servicemembers and family members can access behavioral health information including recent news articles, self-assessment programs, and behavioral health flyers and brochures."

The Department of Veterans Affairs has a good track record of helping veterans. The VA has group sessions and individual therapy sessions to help overcome the trauma of PTSD. The VA National Center for PTSD (NCPTSD) website (http://www.ncptsd.va.gov/ncmain/index.jsp) states (at http://www.ncptsd.va.gov/ncmain/ncdocs/fact_shts/fs_treatmentforptsd.html), "Today, there are good treatments available for PTSD. When you have PTSD, dealing with the past can be hard. Instead of telling others how you feel, you may keep your feelings bottled up. But talking with a therapist can help you get better. Cognitive-behavioral therapy (CBT) is one type of counseling. It appears to be the most effective type of counseling for PTSD. There are different types of cognitive-behavioral therapies, such as cognitive therapy and exposure therapy. There is also a similar kind of therapy called eye movement desensitization and reprocessing (EMDR) that is used for PTSD. Medications have also been shown to be effective. A type of drug known as a selective serotonin reuptake inhibitor (SSRI), which is also used for depression, is effective for PTSD."

The key is that the Departments of Defense and Veterans Affairs have integrated programs that can help servicemembers, veterans, and their families from the time a mental health issue is suspected to a full treatment plan and implementation. All you have to do is ask. By asking, you will find many forms of help and you will find you are not alone.

patient learns a more relaxed response to stressors. Mastering relaxation techniques, guided imagery, and concentration in therapy helps the patient reclaim self-mastery.

A very important part of treatment is reminding the survivor that they prevailed in the face of the traumatic event(s). The survivor is reminded of his or her strength. This helps them rewrite the meaning of the experience and alter their negative self-perception, which leads to learning new and healthy coping behaviors. Recognizing that they are in control of their thoughts they then can adapt a more healthy way to respond to their situation. In so doing, the therapist has assisted in building a new sense of self in the patient.

Learning new coping strategies and skills is another part of the treatment process. As an individual realizes that they can cope with situations that used to elicit great anxiety and stress, they experience a sense of self-mastery. Self-mastery leads to resilience. Trauma can make someone stronger and ready to take on life's challenges in a renewed way.

Internal control or self-mastery is a major goal of trauma therapy. A veteran should remember, if one can rebound from a traumatic past there's almost nothing you cannot overcome. Others who have suffered great trauma, such as psychiatrist and neurologist Viktor Frankl during the Holocaust, have emerged greater and more inspired people. Sometimes, if we're fortunate, the worst experiences in life can inspire the best in us.

Despite enduring a traumatic experience, even long past, it lives on revisiting the survivor uninvited through recurring dreams and intrusive thoughts until the experience is reintegrated within the individual's psyche. This takes the help of a trained professional. Recollections of trauma do not fade from memory as everyday experiences do. With individual psychotherapy, these recollections will lessen their intrusiveness until they no longer appear without being summoned. When summoned, the individual will be able to recall the memory without being overwhelmed by it. The key to putting the past in the past, where it belongs, is to build a new sense of self. The therapist will help reacquaint returning veterans with their hopes and dreams. Self-discovery is the crown jewel of psychotherapy. Those that have endured war related trauma need this opportunity more than anyone else. •