

The Development and Experience of Combat-Related PTSD: A Demand for Neurofeedback as an Effective Form of Treatment

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Veterans experience a considerable course of posttraumatic stress disorder (PTSD), and because of several psychosocial issues, traditional interventions and traditional intervention settings are ineffective for this population. A new cutting-edge approach, known as neurofeedback, trains clients to control and manipulate their central nervous system and ameliorate physiological symptoms of stress disorders. The authors delineate how neurofeedback can be an effective and innovative intervention for PTSD experienced by the military population.

Keywords: combat-related PTSD, situational awareness, survivor's guilt, neurofeedback

Posttraumatic stress disorder (PTSD) in veterans differs when compared with the isolated, traumatic incidents that civilians experience (Carmichael, 2009; Tanielian, 2009; Wilson, 2009). Generally, PTSD is classified as an anxiety disorder that develops after an individual is exposed to or witnesses another individual experiencing a life-threatening situation and responds with intense fear, helplessness, or horror (Foa, Keane, & Friedman, 2000; National Institutes of Health [NIH], 2010). Combat-related PTSD, formerly known as “battle fatigue” (Solomon, Weisenberg, Schwarzwald, & Mikulincer, 1988, p. 365) or “shell shock” (Mosse, 2000, p. 101), refers to experiencing posttraumatic stress as a result of exposure to trauma on a battlefield or in a war zone. Distinctions of combat-related PTSD include not only the type of trauma experienced but also the course of its development, how it is experienced (Alford, Mahone, & Fielstein, 1988; Eisenhart, 1975; Tanielian, 2009), and psychosocial barriers to treatment (Hoge, Auchterlonie, & Milliken, 2006; Sullivan, 2012; Tanielian, 2009; Wright et al., 2009). Unfortunately, these components of combat-related PTSD are not always acknowledged. Counselors should be cognizant of these differences to effectively tailor and deliver services to veterans.

Combat-related PTSD is a condition unique to the military and occurs more frequently than the PTSD experienced by the general public (NIH, 2010; Richardson, Frueh, & Acierio, 2010). Between 12% and 30% of war fighters returning from deployment in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) experience combat-related PTSD

(Hoge et al., 2006; Richardson et al., 2010; Tanielian, 2009). Identifying distinctions about the condition is necessary for counselors to specialize interventions and provide effective treatment (Carmichael, 2009; Duffy, 2000; Hammond, 2007; Othmer & Othmer, 2009; Peniston & Kulkosky, 1991; Tanielian, 2009; Walker, 2009; Wilson, 2009). Unfortunately, because of psychosocial barriers involving stigmatization and consequences related to a mental health diagnosis, less than half of veterans experiencing combat-related PTSD symptoms actually report difficulties (Hoge et al., 2006; Hoyt & Candy, 2011; Kim, Britt, Klocko, Riviere, & Adler, 2011; McFarling, D'Angelo, Drain, Gibbs, & Rae Olmstead, 2011; Sullivan, 2012; Tanielian, 2009; Wright et al., 2009), which further reinforces the need for an innovative and evidence-based treatment (Creamer & Forbes, 2004).

Of particular interest is that war fighters are groomed to function with a heightened level of physiological arousal to survive in a combat environment (Alford et al., 1988; Eisenhart, 1975). Upon returning home, however, they are often not retrained to decrease this heightened state of physiological arousal, which, along with a duty to fight and protect, is neither necessary nor appropriate in a civilian environment where warfare is nonexistent (Othmer & Othmer, 2009; Peniston, Marrinan, Deming, & Kulkosky, 1993). In addition, war fighters are taught the necessity to suppress any emotional arousal to effectively make sound decisions during warfare (Alford et al., 1988; Eisenhart, 1975; Mosse, 2000; Solomon et al., 1988). Continuing to

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suppress these feelings, however, may hinder treatment (Alford et al., 1988).

Because of the nature of combat-related PTSD, counselors must incorporate psychophysiological parameters to be effective (Hopper, Frewen, van der Kolk, & Lanius, 2007; Johnston, Boehm, Healy, Goebel, & Linden, 2010; Othmer & Othmer, 2009). For example, by viewing electroencephalographic frequencies, practitioners are now capable of identifying any dysregulation in the client's central nervous system that contributes to psychopathologies (Brosschot, Gerin, & Thayer, 2006; Hammond, 2007; Raymond, Varney, Parkinson, & Gruzelier, 2005; Walker, 2009; Wilson, 2009). Neurofeedback is a possible promising approach to treat combat-related PTSD. Neurofeedback is noninvasive and viewed as an alternative to medication for common psychological conditions, including depression, anxiety, and affective disorders (Duffy, 2000; Johnston et al., 2010; Othmer & Othmer, 2009).

Combat-related PTSD is a unique condition that is extremely prevalent in the military population today. In a sense, war fighters are essentially primed for symptoms of PTSD because the heightened physiological arousal and withholding of emotional reactions are necessary for survival in a combative experience. Professional counselors are in a challenging situation and need to be aware of the available techniques that may help veterans gain control over their physiological arousal. What follows is an overview of the development of combat-related PTSD, along with psychosocial issues veterans face regarding current forms of treatment. A promising solution that incorporates neurofeedback modalities into therapy is explained, and implications for professional counselors are provided.

PTSD

Generally, PTSD develops after exposure to a life-threatening event in which an individual responds with intense feelings of fear, horror, and helplessness (Foa et al., 2000; NIH, 2010). According to the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; American Psychiatric Association [APA], 2013) diagnostic criteria for PTSD, the individual must experience each of the following clusters of symptoms for the duration of 4 weeks: (a) presence of intrusion symptoms, including recurrent and distressing memories or flashbacks; (b) efforts to avoid any stimuli associated with the event; (c) negative changes in thoughts and mood, including suppression of memories associated with the event, cognitive distortions and exaggeration of negative beliefs, and withdrawal and detachment behaviors; and (d) changes in arousal and reactivity, including hypervigilance, recklessness, and increased irritability and anger. The individual may also feel irritable and experience extreme guilt or worry (NIH, 2010). Typically, the degree of clinical symptoms correlates with the severity, duration, and proximity of exposure to the traumatic event

(APA, 2013). Experiencing all three clusters of symptoms immediately after exposure to trauma is typical (Sapolsky, 2004).

PTSD is a complex disorder involving a neurological reaction, a physiological arousal, and an emotional response (Lyons, Gerardi, Wolfe, & Keane, 1988; Sapolsky, 2004; Yehuda, 2002). In a dangerous situation, neurological pathways in one's brain signal the release of stress hormones, including epinephrine and norepinephrine, thereby activating the sympathetic nervous system response known as *fight or flight* (Sapolsky, 2004; Yehuda, 2002). When an individual experiences a traumatized state for long periods of time, an extensive bath of these stress hormones changes the structure of the hippocampus of the brain, responsible for memories, and stimulates an overactivation of the amygdala, responsible for emotions (Sapolsky, 2004; Yehuda, 2002). As a result, the individual's inability to consolidate memories leads to reexperiencing a visual recollection and sensory impressions of the traumatic event through intrusive thoughts, nightmares, or flashbacks (Brosschot et al., 2006; Ehlers & Clark, 2000; Sapolsky, 2004).

Anytime a trauma-related memory is triggered, even unconsciously (Ehlers & Clark, 2000), the individual reexperiences the event and responds on a physiological level, including increased heart rate, increased skin conductivity, increased respiration rate, increased electromyographic activity, and elevated blood pressure (Brosschot et al., 2006; Butler et al., 1990; Davis, Adams, Uddo, Vasterling, & Sutker, 1996; Ehlers & Clark, 2000; Kolb, 1987; Russoniello et al., 2009; Yehuda, 2002). The mind and body react as if the trauma were continuing to occur in real time. Clients will often experience emotions of intense anger and irritability and have difficulty sleeping. It is also common for clients to experience cognitive impairments, which may cause them to struggle with learning new information, concentrating, attending to tasks, and retrieving memories (Butler et al., 1990; Davis et al., 1996; Yehuda, 2002). Physiological and emotional symptoms are maintained because of the alteration in one's perception, which delays recovery time and interferes with the ability to cope effectively (Butler et al., 1996; Sapolsky, 2004; Yehuda, 2002).

Military Culture and Combat-Related PTSD

PTSD typically develops after exposure to a variety of traumas, including rape, natural disasters, and physical assault (Deering, Glover, Ready, Eddleman, & Alarcon, 1996; Fontana, Rosenheck, & Brett, 1992). Combat-related PTSD, however, is a unique condition. Because of the preparation for a war environment, combat-related PTSD develops from a very different type of experience involving not only exposure to war-related events (Armistead-Jehle, Johnston, Wade, & Ecklund, 2011; Prigerson, Maciejewski, & Rosenheck, 2001) but also an interaction of training and psychological prepara-



tion for the combat experience (Alford et al., 1988; Deering et al., 1996; Fontana et al., 1992). Preparing for combat may actually induce susceptibility for developing PTSD, provoking the neurological reaction, physiological arousal, and emotional withdrawal that progress and potentially inhibit recovery after deployment (Alford et al., 1988).

Upon enlistment, war fighters identify as members of their military branch, committing to the associated principles. They are trained to be obedient to their superiors and military codes and to be aggressive in time of warfare, knowing any alternative may lead to a fatality (Eisenhart, 1975; McFarling et al., 2011; Wong, Kolditz, Millen, & Potter, 2003). War fighters engage in war with a purpose and uphold their duty to their comrades, military unit, and country (Shay, Cleland, & McCain, 2002). This mentality is fairly unique to the military, as civilians do not volunteer to become a member of a team in which they will experience trauma, nor do they typically embrace the mentality to endure trauma as a personal duty.

In addition to commitment, war fighters are trained to operate at a heightened level of preparedness to further ensure readiness for the unpredictability of omnipresent danger (Alford et al., 1988), especially in a war when it is difficult to differentiate between enemies and civilians (Sammons & Batten, 2008). In an attempt to prevent danger, troops approach every possible situation as a potential threat (Alford et al., 1988). This involves structuring cognitions to develop a distinct situational awareness, as well as accurate and instantaneous decision-making skills (Pleban, Eakin, Salter, & Matthews, 2001; Toner, 2009). Situational awareness refers to understanding and analyzing one's surroundings in the context of importance to further determine a course of action (Toner, 2009). To effectively make sound decisions in a war zone, military personnel are trained to quickly assess for any risks or dangers (Hoyt & Candy, 2011). These components are similar to the symptoms experienced by those with PTSD as a result of exposure to trauma. War fighters, however, are required to embrace this mentality prior to deployment, and to further function in this state while engaging in warfare in order to survive combat.

Combat readiness fosters an absolutistic style of thinking, creating a low tolerance level for mistakes and further influencing a sense of emotional numbness associated with PTSD (Alford et al., 1988). War fighters embrace a perception of absolutistic thinking and approach each incident with a decision knowing the consequences will lead to an either/or result (Alford et al., 1988; Creamer & Forbes, 2004). In addition, war has two basic outcomes: life or death. With that mind-set, all actions and reactions are performed with the reality that someone will either live or die. There is no tolerance for mistakes, as an error may result in a fatality (Alford et al., 1988). War fighters are trained to embrace absolutistic thinking before a combative experience because their lives and the lives of others depend on it.

Maintaining a rational viewpoint requires war fighters to deny any personal reactions and suppress any emotional responses while on the battlefield. As a result, emotions are often expressed in the form of anger and hostility toward the enemy, creating a vengeful warrior (Alford et al., 1988). It is common for this population to internalize any mishap as a personal failure, leading to self-blame and extreme amounts of survivor's guilt (Alford et al., 1988; NIH, 2010; Solomon et al., 1988; Tanielian, 2009). Survivor's guilt develops from feeling unworthy of a personal outcome in comparison with others who may not have fared as well (Solomon et al., 1988). In addition, troops may also struggle with internal conflicts of moral dilemmas upon returning home, comparing the actions and decisions they made while in combat with civilian standards (Lyons et al., 1988; Shay et al., 2002; Solomon et al., 1988; Tanielian, 2009).

The emotional numbing and avoidance needed to be successful on a battlefield are similar to the symptoms expressed as a result of exposure to a trauma. War fighters are trained to emotionally detach from the situation at hand prior to combat (Yehuda, 2002). Without appropriate training to learn how to experience and make sense of the emotions that they suppressed as a necessity in the time of warfare, war fighters further develop maladaptive methods of coping, thereby increasing their vulnerability to comorbidity of substance abuse, depression, and suicidal ideations, further impairing recovery (Alford et al., 1988; Armistead-Jehle et al., 2011; Deering et al., 1996; Green, Lindy, Grace, & Leonard, 1992; Hoyt & Candy, 2011; Tanielian, 2009).

Whereas predeployment and war readiness demand much attention, there is little focus on helping war fighters to retrain their physiological and psychological state postdeployment (Alford et al., 1988; Brosschot et al., 2006; Carmichael, 2009; Russoniello et al., 2009; Wilson, 2009). Although troops are prepared for duty, they are unprepared for the psychological war wounds and comorbidity that develop (Creamer & Forbes, 2004; Sammons & Batten, 2008; Tanielian, 2009). Because of the distinct characteristics of combat-related PTSD, along with the elevated incidence of comorbidity, war fighters require specified treatment involving a physiological component.

Comorbid symptoms are known as co-occurring conditions that comprise separate diagnoses and exist simultaneously (Valderas, Starfield, Sibbald, Salisbury, & Roland, 2009). Elevated rates of major depression coexist with PTSD, increasing the risk of suicidal ideations, attempts, and successes (Hoge et al., 2006; Tanielian, 2009). Tanielian and Jaycox (2008) indicated veterans are likely to commit suicide because of strong feelings of depression and helplessness as a result of multiple deployments, substance abuse, and relationship issues. In addition, the prolonged and increased sympathetic nervous system activation leads to high instances of physical illnesses, including cardiovascular and gastrointestinal disor-

ders, diabetes, and cancer (Kendall-Tackett, 2009; Tanielian, 2009). Additional health-related behavioral problems result because of lower standards of self-care. Typical behaviors include eating foods with lower nutritional values and exercising less, as well as higher rates of smoking, caffeine consumption, and use of drugs and alcohol. Veterans reported an increase in self-medication through drugs and alcohol in an attempt to decrease emotional suffering and sleep disturbances (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Tanielian, 2009). These behaviors negatively affect the individual's overall health and well-being, decrease productivity in a work environment, strain relationships, and increase the risk of interpersonal violence (Keane & Kaloupek, 1997; Tanielian, 2009). Unfortunately, because of the stigma of PTSD and situational barriers to health care, less than half of veterans experiencing symptoms actually report difficulties (Sullivan, 2012; Tanielian, 2009; Wright et al., 2009).

■ Psychosocial Barriers to the Treatment of Combat-Related PTSD

For multiple reasons, war fighters with combat-related PTSD experience circumstances unique to the military population that inhibit seeking and receiving proper care. These include dealing with stigmas, personal concerns, and situational barriers associated with the mental health diagnosis of combat-related PTSD (Creamer & Forbes, 2004; Hoyt & Candy, 2011; Kim et al., 2011; McFarling et al., 2011; Sullivan, 2012). Furthermore, military personnel with more significant mental health issues face additional interpersonal struggles when seeking treatment. Those who are in dire need of help are not receiving proper care (Wright et al., 2009).

War fighters with combat-related PTSD face stigmas associated with a mental health diagnosis and the treatment involved (McFarling et al., 2011). Stigmas regarding mental health care in the military are multidimensional; veterans concern themselves with both outside perceptions of others and personal internal conflicts (Hoyt & Candy, 2011; McFarling et al., 2011). War fighters are built to withstand trauma on a battlefield without requiring assistance. Beginning from combat training, troops are taught to embrace a culture that includes upholding an attitude of strength, and they are seen as a dependable and reliable source of protection for the country. War fighters with combat-related PTSD shy away from treatment because they worry about how members of their unit will view them and fear they will be seen as inadequate and unreliable. Troops also struggle with internal conflicts regarding self-esteem issues, often feeling inferior and embarrassed and believing that they are the cause of their problem or that seeking help validates the thought that a problem exists (Hoyt & Candy, 2011; Kim et al., 2011; McFarling et al., 2011; Wright, 2009). Seeking help is frowned upon in the military population, and receiving treatment for a mental

health diagnosis is considered a weakness (Hoyt & Candy, 2011; Kim et al., 2011; McFarling et al., 2011).

When contemplating seeking mental health care services, war fighters are cautious about reporting symptoms for numerous reasons and have additional reservations regarding career placements and future advancements (Hoyt & Candy, 2011; Jones, Young, & Leppma, 2010; Kim et al., 2011; McFarling et al., 2011; Sullivan, 2012; Tanielian, 2009; Wright et al., 2009). A main concern is confidentiality about symptoms reported and treatment received (Wright et al., 2009). War fighters fear a mental health diagnosis will interfere with occupational duties or future assignments, including security clearance (Hoyt & Candy, 2011; Tanielian, 2009). There is also the threat of weapon restrictions if war fighters were to express an intent to harm themselves or others (Hoyt & Candy, 2011). War fighters on medication seeking to redeploy face additional concerns. According to the Department of Defense's (2006) "Policy Guidance for Deployment-Limiting Psychiatric Conditions and Medications," if a warrior is administered a psychotropic medication, he or she must show improvement of symptoms or emotional/mental stability and an ability to tolerate the medication for a period of 3 months prior to a redeployment (Schneider, Bradley, Warner, & Benedek, 2011). War fighters have voiced concerns regarding negative side effects from medication and fear that these side effects will impair their performance on the battlefield (Tanielian, 2009). The ultimate reason those experiencing combat-related PTSD reported abstaining from seeking help is the belief that the mental health care treatment available is ineffective (Hoge et al., 2006).

■ Neurofeedback: A New Approach to Treatment

Because of the complexity of combat-related PTSD, treatment must address physiological aspects and teach war fighters to gain control over the neurological reaction, physiological arousal, and emotional response associated with the condition (Carmichael, 2009; Duffy, 2000; Othmer & Othmer, 2009; Peniston et al., 1993). Prolonged activation in a hypervigilant state leads to a maladaptive pattern of functioning in both the autonomic and central nervous systems. Because both systems work together simultaneously, changes in the central nervous system affect the functioning of the autonomic nervous system (Brosschot et al., 2006). Advances in technology allow practitioners to view brain wave patterns and further explore the central nervous system. For example, a disharmonic firing of the electrical activity in the brain results in both emotional and behavioral dysfunctions and further explains psychopathology (Hammond, 2007; Johnston et al., 2010; Othmer & Othmer, 2009; Peniston & Kulkosky, 1991).

As previously mentioned, avoidance behaviors and negative emotions, including anger and irritability, are prevalent



characteristics of combat-related PTSD (Tanielian, 2009). Presentation of these symptoms can be explained when viewing brain wave activity through the use of an electroencephalograph. Practitioners determine and distinguish brain wave patterns according to the electrical output produced (Duffy, 2000; Hammond, 2007; Johnston et al., 2010; Othmer & Othmer, 2009; Raymond et al., 2005). The locations, along with specified firing rates, of the brain's electrical activity correspond to the functionality of the individual in terms of emotions experienced and behaviors expressed. To function efficiently, normal brain wave patterns consist of faster electrical activity dominating the frontal cortex of the brain, directly behind the forehead, whereas slower electrical activity is found in the occipital lobe, or the back of the brain. If excessive amounts of brain waves exist in atypical regions, clients will experience emotional distress and present with maladaptive behaviors (Hammond, 2007; Johnston et al., 2010; Othmer & Othmer, 2009; Raymond et al., 2005).

War fighters with combat-related PTSD tend to present with an asynchronicity between left and right hemisphere brain waves, indicating the presence of electrical misfiring in the brain (Othmer & Othmer, 2009; Peniston et al., 1993). Specifically, an abundance of alpha brain waves in the left hemisphere corresponds to the negative mood and avoidance behaviors, whereas an insufficient amount of alpha waves in the right hemisphere corresponds to the fearful emotions and hypervigilance behaviors presented in combat-related PTSD (Neerinx, Kallen, Brouwer, van der Leer, & ten Brinke, 2010; Othmer & Othmer, 2009; Peniston & Kulkosky, 1991; Walker, 2009). Neurofeedback training has the capability to visually represent these brain waves for the war fighter and the counselor. Neurofeedback protocols for combat-related PTSD train the war fighter to decrease alpha power in the left hemisphere and increase alpha power in the right hemisphere, thereby achieving synchronicity of brain waves (Othmer & Othmer, 2009; Peniston & Kulkosky, 1991).

Through operant conditioning, manipulating the increase and decrease of alpha waves in appropriate locations is positively reinforced through computer games, animations, and audible tones. War fighters continually receive feedback on how their brain is firing and are able to manipulate this electrical activity accordingly. After participation in a protocol, war fighters have reported improved sleep patterns and concentration as well as increased energy (Hammond, 2007; Johnston et al., 2010; Othmer & Othmer, 2009; Peniston & Kulkosky, 1991; Raymond et al., 2005). In addition, reconditioning brain waves may help to decrease symptoms of comorbidity, including depression and alcoholism, which are prevalent in combat-related PTSD (Othmer & Othmer, 2009; Peniston et al., 1993; Sokhadze, Stewart, & Hollifield, 2007).

Overall, neurofeedback training allows war fighters to gain control over the neurological responses, physiological arousal, and emotional reactions experienced as a result of

combat-related PTSD. Neurofeedback is a safe and noninvasive form of therapy and can be seen as an alternative to medication for common psychological conditions, including depression and anxiety (Duffy, 2000; Hammond, 2007). Just as medications alter the chemical activity in one's brain, neurofeedback allows war fighters with combat-related PTSD to manipulate their brain's electrical activity to correspond with the chemical activity.

Neurofeedback incorporates a training approach to treatment, a style that is familiar and appealing to military participants (Carmichael, 2009; Hoyt & Candy, 2011; Walker, 2009; Wilson, 2009). The neurofeedback practitioner is not physically doing anything to the war fighter. War fighters are educated on their condition and taught various techniques to control and change their physiological responses to combat-related PTSD. Military personnel who have experienced neurofeedback therapy reported appreciating the visual component of this type of training and the ability to better understand and gain techniques to control their physiology (Carmichael, 2009; Wilson, 2009). Incorporating a training approach may further entice war fighters to engage in treatment without facing the psychosocial barriers that commonly accompany a mental health diagnosis (Carmichael, 2009; Wilson, 2009).

Neurofeedback is typically used in conjunction with counseling. Counseling has been found effective for assisting clients with solving problems, enhancing interpersonal functioning, and reducing symptoms of distress (Lambert & Cattani-Thompson, 1996). Counseling interventions have a positive impact on the central autonomic nervous system, allowing for changes to occur both in brain activity and in physiological responses, thereby improving one's mental and emotional health and psychosocial well-being (Myers & Young, 2012). These counseling techniques, although effective, require much time to induce structural changes in the brain (Ressler & Mayberg, 2007). Whereas research indicates certain counseling techniques have been effective for changing these biological responses, neurofeedback modalities actually offer the client and the counselor a visual representation of these changes in real time (Myers & Young, 2012).

To incorporate neurofeedback protocols into counseling, counselors must first obtain their neurofeedback certificate through the Biofeedback Certificate International Alliance (BCIA; www.bcia.org). BCIA training in neurofeedback educates counselors on the specifics of the electrical activity of the central nervous system and how firing patterns correspond to functionality and behaviors. Counselors will gain knowledge about the history of the field, knowledge about the principles of human learning related to the applications of neurofeedback, an extensive understanding of neuroanatomy, and understanding of instrumentation. In addition, training candidates will also be versed in psychopharmacological considerations, neurofeedback treatment planning, and professional conduct (BCIA, 2014).

Conclusion

Combat-related PTSD currently affects thousands of returning war fighters from the OEF/OIF wars (Richardson et al., 2010). Combat-related PTSD is a condition idiosyncratic to the military, which involves training war fighters' neurological responses, physiological arousal, and emotional reactions necessary for survival during warfare. War fighters train for and approach a combative situation as if they were already experiencing symptoms of PTSD. Although it is common to experience a heightened level of physiological arousal along with emotional numbing and avoidance after exposure to a traumatic event, war fighters are trained in and expected to engage in this state on the battlefield, as any other response may lead to their demise (Alford et al., 1988). Upon returning home, however, war fighters are not trained to reduce the heightened level of arousal or effectively process suppressed emotions, which makes them more susceptible to experiencing combat-related PTSD and comorbid conditions (Alford et al., 1988; Tanielian, 2009).

Through neurofeedback, war fighters may gain a better understanding of their condition and learn effective skills to manipulate their psychophysiology, as well as further decrease the maladaptive symptoms of combat-related PTSD and the risk of experiencing comorbid conditions (Hammond, 2007; Othmer & Othmer, 2009; Russoniello et al., 2008; Walker, 2009; Wilson, 2009). Incorporating neurofeedback into treatment protocols designed for the military may alleviate the neurological responses, reverse physiological arousal, and improve emotional reactions experienced as a result of training for combat and exposure to trauma on the battlefield. Neurofeedback is the missing link war fighters need to fully recover from combat-related PTSD. War fighters have made the ultimate sacrifice for the safety and freedom in the United States. Now professional counselors have the duty to serve these war fighters, by establishing a sense of safety and security similar to that which they have provided for the country by engaging in battle, and by helping them to be free from the symptoms associated with combat-related PTSD.

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