as Peer Specialists in the Veterans Administration. Since 2005, people who have experience as consumers have worked as Consumer Providers (CPs) in the VA delivering services to veteran with psychiatric disabilities such as providing support, teaching knowledge and skills to manage symptoms in order to live, work, learn, and socialize in the community. Gill et al. describe a process to identify the specific role competencies of CPs in the VA that can then be used to develop effective academic training programs for CPs.

The fourth article, Donnell, Mizelle, and Zheng examine the VR services of consumers with psychiatric and substance use disorders. Estimated co-occurrence of these disorders is as high as 50% and is believed to significantly affect employment outcomes. Using the Longitudinal Study of the Vocational Rehabilitation Services Program database, (LSVRSP; Cornell University ILR School, Employment and Disability Institute, 2003), Donnell et al. examine the characteristics, employment outcomes, recovery-related outcomes, and the relationships between these variables for people diagnosed with both psychiatric and substance use disorders served in the state VR system.

In the fifth article, Gill, Murphy, Zenchner, Swarbrick, and Spagnolo describe the challenges and strategies in working with people who have both psychiatric and physical health disorders. People with psychiatric disabilities are dying on average 25 years earlier than the general population, in large part due to co-occurring health conditions such as diabetes, obesity, cardiovascular disorders, etc. These medical co-morbidities not only shorten their life span, but affect the pursuit of personal goals in interpersonal relationships, higher education, independent living, and employment. Rehabilitation professionals serving persons with psychiatric disabilities can learn and implement interventions that improve overall health and promote a wellness lifestyle.

In closing, the articles contained within this Special Issue are designed to stimulate discussion among practitioners, administrators, scholars, and educators to promote an increased awareness of the emerging issues faced by individuals with psychiatric disabilities. It is further hoped this Special Issue will serve as an incentive for further research and dissemination of psychiatric rehabilitation in the field of rehabilitation counseling.

References

Articles
1. Burke, H. S., Degeneffe, C. E., & Olney, M. F. A new disability for rehabilitation counselors: Iraq war veterans with TBI and PTSD.

A New Disability for Rehabilitation Counselors: Iraq War Veterans with Traumatic Brain Injury and Post-Traumatic Stress Disorder

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Traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD) are considered the “signature” injuries of military personnel serving in the Iraq and war. An alarming number of returning veterans are incurring a combination of these two disabilities. TBI and PTSD combined presents an array of challenges for injured persons that are experienced differently by those separately affected by TBI or PTSD. Hence, the combination of TBI and PTSD presents a new disability classification for the rehabilitation counseling profession. There is an acute need to develop and facilitate specialized care and rehabilitative services for veterans impacted by this nascent disability. We highlight neurobiological, behavioral, and physiological characteristics associated with combat-injured TBI/PTSD injuries. Additionally, we offer recommendations for rehabilitation counseling profession of military personnel and researchers to consider in response to our review of the current system of veteran care, common barriers to rehabilitation and societal re-integration, and available resources for military personnel impacted by TBI and PTSD.

In 2002 and 2003, the George W. Bush Administration stressed that Iraq posed a danger to the safety and security of the United States through the fear that Iraq was developing an arsenal of chemical, biological, and nuclear weapons. The United States and its allies subsequently invaded Iraq in March 2003 and this conflict, commonly referred to as the “Iraq War,” continues into its sixth year (Wong, 2008).

The United States has incurred massive human and financial expenditures through its involvement in Iraq. It is estimated that total spending on the Iraq war will cost the United States up to $3 trillion to fund current military operations along with the expenses of paying the long-term disability costs of injured military personnel, death benefits sent to the families of those killed in Iraq, and interest fees paid by the United States Treasury to borrow money to fund current expenditures (Bilmes & Stiglitz, 2007). More importantly, as of October 4, 2008, a total of 4,169 United States military service members have lost their lives in this conflict (U.S. Department of Defense, 2008). Further, the organization “Iraq Body Count” estimates that through mid-October 2008, 88,373 to 96,466 Iraq citizens have been killed since the March 2003 invasion (Iraq Body Count, 2008).

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The American public as well as rehabilitation professionals are increasingly developing awareness of these realities. In addition to television programs, newspaper stories, and radio shows, an especially effective source of awareness are first-hand accounts of the horrors and aftermaths of combat chronicled in such books as In An Instant: A Family’s Journey of Love and Healing (Woodruff & Woodruff, 2007) and Rule Number Two: Lessons I Learned in a Combat Hospital (Kraft, 2007). Such accounts educate readers that those who are fighting in Iraq face the significant potential of incurring a chronic disability or illness. Two of the most common chronic conditions now experienced are traumatic brain injury (TBI) and posttraumatic stress disorder (PTSD).

TBI and PTSD are commonly referred to as the “signature” injuries of military personnel serving in the Iraq War (Fairweather & Garcia, 2007). The need to develop and facilitate specialized care and rehabilitative services for veterans impacted by this mod- ers is of paramount importance. An estimated 22% of all Operation Iraqi and Enduring Freedom (OIF/OEF) combat injuries involve some form of brain damage (Summala, 2008). Also, the California Community Foundation (2008) estimates one in five service members who engaged in OIF/OEF military operations develop PTSD or major depression.

The unique nature of how military personnel incur combat-related injuries presents the emergence of a new disability for rehabilitation counselors and other health professionals to con-
front. Many combat-injured military personnel are returning from the conflict with the simultaneous onset of both TBI and PTSD. Volatile combat conditions, which frequently entail the influence of blast-related polytrauma, increase military personnel’s likelihood to experience both conditions (Kennedy et al., 2007). Living with both disabilities presents a unique array of challenges that is distinct from singularly living with either TBI or PTSD.

The purpose of this paper is to help prepare rehabilitation counselors and other professionals to address the unique needs of this emerging client population for vocational rehabilitation, independent living, and family support. Specifically, we will provide (a) an overview of the injury sequelae of TBI and PTSD, (b) the challenges in living with TBI combined with PTSD, and (c) available interventions and support services.

An Overview of the Injury

Sequelae of TBI and PTSD

With over 1.6 million military personnel deployed in coordination with Operations Iraqi and Enduring Freedom (California Community Foundation, 2008), and close to 30,000 troops wounded in action (Defense Link, 2008) the need for optimal, specialized rehabilitation services for veterans impacted by the combination of TBI and PTSD is imperative. Multiple, lengthy deployments to harsh venues of battle have subsequently created a unique set of stresses for numerous active duty, Reserve, and National Guard members and their families.

Blunt injuries from improvised explosive devices (IED) in the Iraq War are the most frequent causal agent of combat casualties (Levin, 2008). The consequences of IED caused blasts include primary, secondary, tertiary, and quaternary injuries (DePalma, Burris, Champion, & Hodgson, 2005). Primary injuries refer to the effects of the wave-induced changes in atmospheric pressure following the blast, resulting in possible damage to body parts with air-filled cavities, such as the ears or the chest. Secondary injuries refer to damage caused by objects put into motion following the blast and then hitting people. Tertiary injuries occur when an object or the ground following the blast. Quaternary injuries refer to complications or worsening of existing conditions. Quaternary injuries are caused by toxic inhalation, burns (chemical or thermal), exposure to radiation, asphyxiation (includes carbon monoxide and cyanide after incomplete material combustion, and breathing in dust from coal or asbestos). (Levin, 2008). One example of how quaternary injuries are caused occurs when IEDs are constructed with ball bearings coated with various poisons (M. McDonough, personal communication, March 18, 2008).

The National Center on Posttraumatic Stress Disorder estimates that 60% of soldiers who experience an IED attack also suffer from TBI (Drexel University, 2008). Warden (2006) noted that blast-related secondary and tertiary injuries result in TBI much like this injury occurs in the civilian world through such causes as falls and motor vehicle accidents. However, the connection between primary injuries and TBI is much less clear.

TBI is characterized by trauma to the head, resulting in concussive, or closed, and penetrating injuries (Defense and Veterans Brain Injury Center, 2007). Ranging in severity from mild to severe, symptoms into TBI consist of cognitive, behavior problems, including concentration, attention, memory setbacks, sleep dysfunction, headache, depression, anxiety, and disruption (Degeneffe, 2001). Persons with TBI sometimes experience anxiety-related symptoms such as extreme apprehension, interpersonal sensitivity and social alienation (Rao & Lyketsos, 2002). Mild traumatic brain injury encompasses approximately 80% of all TBIs (Summerall, 2008).

Studies also indicate that troops who have survived IED- caused blasts in Iraq report elevated rates of PTSD (Hoge et al., 2008). Given the high incidence of blast explosion attacks paired with urban combat conditions, veterans of the Iraq war often experience co-occurring conditions. The occurrence of the TBI incident, which resulted in the TBI, persists (Faiweather & Garcia, 2008). Veterans may incur PTSD due to events that precede or follow loss of consciousness in addition to the possibility of experiencing PTSD after learning information or details about their traumatic event while in recovery (Summerall, 2008). Warden (2006) noted that individuals with mild TBI are at an elevated risk of developing PTSD in comparison with severe TBIs, especially in instances of blast-related injury.

PTSD results after an individual experiences intense distress and trauma, commonly present in combat scenarios. Common symptoms include reliving the traumatic event, avoidance of anything associated with the traumatic event, and feelings of hyper-vigilance and irritability (Force Health Protection and Readiness, n.d.). Deployments to Iraq, in which the rules of engagement are often strained due to concern of collateral damage (Hoge et al., 2008), can result in a prolonged experience of stress and unique experimental elements can result in disproportionate release of stress hormones with likely detrimental consequences involving coping ability, health preservation and restoration (Litze, 2008). Individuals may experience PTSD and TBI from two mutually exclusive experiences, in which recovery from both disorders could be complicated (Summerall, 2008).

The progression of PTSD symptoms can be impacted by the occurrence of a TBI (Summerall, 2008). Individuals diagnosed with PTSD and TBI had more PTSD symptoms than individuals with PTSD exclusively (Summerall). Furthermore, studies have indicated that PTSD can aggravate cognitive symptoms occurring in cases of mild TBI (Kennedy et al., 2007).

A biologically based model suggests that co-occurring TBI and PTSD may affect the functioning of the neural systems that regulate anxiety, which may serve to further impair the ability to control one’s fear reaction (Levin, 2008). Cognitive model dynamics suggest that mild TBI debilitates cognitive assets resulting in a diminished ability to employ suitable cognitive strategies, which may lead to an amplified occurrence of PTSD (Levin).

Neurobiological research identifies the hippocampus and amygdala, common locations of injuries correlated with TBI, in the maturation of PTSD related symptoms (Summerall, 2008). Studies indicate that hippocampal degeneration is evidenced by neurochemical changes associated with TBI. Therefore, in parallel changes associated with PTSD pathophysiology. These correlated changes are suspected to possibly increase the likelihood of PTSD development following TBI. Further research is suggested and needed in the examination of neurobiological links regarding TBI and PTSD (Kennedy et al., 2007).

Physiologically and psychological disturbances, paired with the varied effects of PTSD, may contribute to significant challenges impacting veterans who have a combination of TBI and PTSD create an elaborate and complex set of hurdles to overcome in pursuit of rehabilitation and maximized functioning. Anxiety and depression, inciting feelings of irritability, anger, and intense sadness, are associated with TBI and PTSD (Kennedy et al., 2007). Further, indicative of their coping struggles, Iraq war veterans with TBI and PTSD as well as the general military population are at greater risk for committing suicide (Harben, 2006).

The Military Mental Health Advisory Team III (Harben, 2006) found that the suicide rate for military personnel serving in Iraq and Kuwait in 2005 was 19.9 per 100,000 members compared to the 18.8 rate in 2003 and the 13.0 rate in 2004. The greatest suicide risk factors included problems with fellow military members, family matters, legal actions, and personal relationship difficulties. Also, an investigation conducted by CBS News (2007) determined how many veterans (i.e., not specifically Iraq war veterans) commit suicide. CBS commissioned the study since they were not able to obtain suicide incidence data from the United States Department of Veterans Affairs (O’Connor). CBS research found in 2005 veteran committed suicide at a rate of 18.7 to 28.0 per 100,000 citizens.

Comparatively, non-veterans in 2005 killed themselves at a rate of 8.9 per 100,000.

System-based challenges

Stigma. The stigma associated with receiving medical assistance within the military community, especially in regards to mental health concerns, serves as a significant barrier to seeking and receiving treatment and rehabilitation (Fairweather & Garcia, 2007). According to the Army’s Mental Health Advisory Team, 59% of Army personnel and 48% of Marines thought that military leaders would treat them differently if they sought mental health care. Subsequently, only 42% of Army soldiers and 38% of Marines requested treatment after screening positive for mental health problems (Willis, 2007). The potential negative impact to service member’s career, paired with shame and fear of judgment, is a concerning barrier to treatment and rehabilitation (Fairweather & Garcia).

Reintegration Difficulties in transition and reintegration experiences, TBI and/or PTSD may cause barriers to returning veterans from inability to maintain employment (Fairweather & Garcia, 2007). Combined with antisocial and hazardous behavior frequently exhibited by individuals diagnosed with TBI and PTSD, many combat veterans impacted by this new disability are engaging in behavior resulting in legal repercussions, such as domestic violence, substance abuse related charges. As a result, many of these veterans are given a discharge status that precludes them from receiving VA compensation and health care.

Engagements in hazardous and disruptive behavior are frequent symptoms causing service members impacted by TBI and/or PTSD to incur criminal and legal problems, which can lead to a dishonorable discharge. A service member with a dishonorable discharge is ineligible for veteran benefits, which includes service connected disability financial supports as well as VA coordinated medical care, to include the Polytrauma System of Care (Fairweather & Garcia).

Another troubling trend entails the application of a personal disorder diagnosis. Whereas TBI and/or PTSD are classified as service-related injuries, personality disorders are considered pre-existing conditions, and, as such, they disqualify service person- nel from receiving VA benefits and care (Fairweather & Garcia, 2007). Lee (2008) noted for example that the diagnosis of adjustment disorder renders a smaller disability payment than would be provided to a veteran with PTSD, further reducing the likelihood of appropriate care and treatment.

Veterans are entitled to request a discharge review or engage in an appeals process regarding their discharge status or disability claims. However, the process is very complex and presents diffi- cult challenges for veterans with PTSD and/or TBI who seek to navigate independently. As a result of changes in Veteran Affairs laws and procedures, service members were recently granted the ability to obtain VA compensation and care when dealing with discharge procedures; however few lawers are knowledge- able in this specialized area (Fairweather & Garcia, 2007).
Difficulties in transition and reintegration

The purpose of this article is to help prepare rehabilitation counselors and other professionals to address the unique needs of this emerging client population for vocational rehabilitation, independent living, and family support. Specifically, we will provide an overview of the injury sequelae of TBI and PTSD, and the challenges in living with TBI combined with PTSD, and available interventions and support services.

An Overview of the Injury Sequelae of TBI and PTSD

With over 1.6 million military personnel deployed in coordination with Operations Iraqi and Enduring Freedom (California Community Foundation, 2008), and close to 30,000 troops wounded in action (Defense Link, 2008) the need for optimal, specialized rehabilitation services for veterans impacted by the combination of TBI and PTSD is imperative. Multiple, lengthy deployments, and increased combat stressors have significantly contributed to the unique set of stresses for numerous active, Reserve, and National Guard members and their families.

Blunt injuries from improvised explosive devices (IED) in the Iraq War are the most frequent cause of combat casualties (Levin, 2008). The consequences of IED caused blisters include secondary, tertiary, and quaternary injuries (DePalma, Burris, Champagne, & Hodgson, 2005). Primary injuries refer to the effects of the wave-induced changes in atmospheric pressure following the blast, resulting in possible damage to body parts with air-filled spaces, such as the lungs and the middle ear. Secondary injuries refer to damage caused by objects put into motion following the blast and then hitting people. Tertiary injuries refer to damage caused by an object or the ground following the blast. Quaternary injuries refer to complications or worsening of existing conditions. Quaternary injuries are caused by toxic inhalation, burns (chemical or thermal), exposure to radiation, asphyxiation (includes carbon monoxide and cyanide after incomplete material combustion, and breathing in dust from coal or asbestos). For example, approximately 80% of all TBIs (Summaril, 2008).

The progression of PTSD symptoms can be impacted by the occurrence of a TBI (Summaril, 2008). Individuals diagnosed with both TBI and PTSD experience more problems than individuals with PTSD exclusively (Summaril). Furthermore, studies have indicated that PTSD can aggravate cognitive and emotional symptoms occurring in cases of mild TBI (Kennedy et al., 2007).

A biologically based model suggests that co-occurring TBI and PTSD may affect the functioning of the nervous system that regulates anxiety, which may serve to further impair the ability to control one’s fear reaction (Levin, 2008). Cognitive model dynamics suggest that mild TBI depletes cognitive assets resulting in a diminished ability to employ suitable cognitive strategies, which may lead to an amplified occurrence of PTSD (Levin).

Neurobiological research identifies the hippocampus and amygdala, common locations of injuries correlated with TBI, in the maturation of PTSD related symptoms (Summerall, 2008). Studies have shown that individuals with structural abnormalities in the amygdala and hippocampus are more likely to develop PTSD (Dempsey et al., 2001). Persons with TBI sometimes experience anxiety-related symptoms such as extreme apprehension, interpersonal sensitivity and social alienation (Rao & Lyketsos, 2002). Mild traumatic brain injuries encompass approximately 80% of all TBIs (Summaril, 2008).

Studies also indicate that troops who have survived IED-caused blasts in Iraq report elevated rates of PTSD (Hoge et al., 2008). Given the high incidence of blast explosion attacks paired with urban combat conditions, veterans of the Iraq War often experience co-occurring injuries. Research has indicated that the incident, which resulted in the TBI, persists (Fairweather & Garcia, 2008). Veterans may incur PTSD due to events that precede or follow low levels of consciousness, in addition to the possibility of experiencing PTSD after learning information or details about their traumatic event while in recovery (Summaril, 2008). Warden (2006) noted that individuals with mild TBI are at an elevated risk of developing PTSD in comparison with severe TBIs, especially in instances of blast-related injury. PTSD results after an individual experiences intense distress and trauma, commonly present in combat scenarios. Common symptoms include reliving the traumatic event, avoiding anything associated with the traumatic event, and feelings of hyper-vigilance and irritability (Force Health Protection and Readiness, 2005). Deployments in Iraq, in which the rules of engagement are often strained due to concern of collateral damage (Hoge et al., 2008), can result in a prolonged experience of stress and avoid experimental elements can result in disproportionate release of stress hormones with likely detrimental consequences impacting coping ability, health preservation and restoration (Lit). Individuals may experience PTSD and TBI from two mutually exclusive experiences, in which recovery from both disorders could be complicated (Summaril, 2008).

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Reintegration Difficulties in transition and reintegration experienced by returning combat veterans can result from inability to maintain employment (Fairweather & Garcia, 2007). Combined with antisocial and hazardous behavior frequently exhibited by individuals diagnosed with TBI and PTSD, many combat veterans impacted by this new disability are engaging in behavior resulting in legal repercussions, such as domestic violence, substance abuse related charges. As a result, many of these veterans are given a discharge status that precludes them from receiving VA compensation and health care. Engagements in hazardous and destructive behavior are frequent symptoms causing service members impacted by TBI and/or PTSD to incur criminal and legal problems, which can lead to a less honorable military discharge. A service member diagnosed with PTSD is disfavorable discharge is ineligible for veteran benefits, which includes service connected disability financial supports as well as VA coordinated medical care, to include the Polytrauma System of Care (Fairweather & Garcia).

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Veterans are entitled to request a discharge review or engage in an appeals process regarding their discharge status or disability claims. However, the process is very complex and presents difficulties for many veterans with PTSD who are looking to navigate independently. As a result of changes in Veteran Affairs laws and procedures, service members were recently granted permission to obtain VA compensation when dealing with discharge procedures; however few lawyers are knowledgeable in this specialized area (Fairweather & Garcia, 2007).
Stress on Family Unit

Families of returning combat veterans who have TBI and PTSD are undeniably affected by common transition difficulties. Domestic violence is more common among veterans with PTSD or severe depression, putting families of veterans diagnosed with PTSD and TBI at an elevated risk (Sherman, 2003). Additionally, spouses may be reluctant to report domestic abuse to the potential negative consequences such as loss of rank, limited career advancement, and loss of future pay increase for the veteran (Hall, 2008).

Hall (2008) noted the United States Department of Defense recognizes the problem of family violence in the military. In 1981 the Department of Defense required each military branch to establish a Family Advocacy Program (FAP), which was designed to prevent and/or intervene in cases of spousal abuse and child maltreatment. However, Hall also noted significant problems with the FAP including: (a) services are not available to ex-spouses and unmarried cohabitating and dating partners, (b) FAP counseling services are not confidential (e.g., only chaplains maintain confidential information), (c) domestic violence must be first reported to the abuser’s superior, and (d) domestic violence is only defined as abuse when the abuse results in permanent or temporary disability/disfigurement or inpatient medical care.

Available Interventions and Support Programs

Intervention strategies

The importance of effective, reliable screening methods as a component of initial evaluation and treatment for TBI and PTSD cannot be overstated. Screening tools utilized by military health care facilities most frequently include magnetic resonance imaging (MRI) and computed tomography, with the military vowing to administer a MRI to any service member requesting a TBI scan or displaying symptoms indicative of TBI. Unfortunately, accessibility impediments, including extensive delays and patient anxiety, may result in a potentially negative effect on the effectiveness of this governmental policy (Willis, 2007). In addition, the VA asserts that no available screening instruments can dependably diagnose TBI and PTSD instead refer to a clinician for diagnosis based on an interview (Summerall, 2008).

For injuries that are not immediately threatening and apparent, such as mild TBI, treatment and subsequent disability rating procedures are convened and place the burden of proof on the injured service member to establish that his/her injuries are combat related (Willis, 2007). In order to better assist the veteran in self-diagnosis, the Army has introduced a chain-teaching program focusing on the negative memory. Assessment of beliefs of the positive thought associated with the targeted memory, and then tracking the therapist’s fingers back and forth as they moved in front of their eyes while focusing on the negative memory. Assessment of belief of the positive thought believed to be both practical and effective. For example, Wood and his colleagues (2007) have successfully used virtual reality and computer game mediated cognitive behavioral interventions.

Cognitive behavior therapy usually includes education regarding the response and intervention skills to enable the individual to exercise control over the extreme physical reaction to PTSD triggers and engage completely in therapy, overcoming avoidance symptoms. Case management, psychosocial rehabilitation, pharmacotherapy, and psychotherapy are all viable components and options regarding treatment and care provision for individuals who have incurred PTSD and TBI (Kennedy et al., 2007).

The National Center for PTSD embraces the customary treatment strategy for TBI and PTSD as being symptomatically based. As such, individuals diagnosed with depression and anxiety receive pharmacologic treatment, in addition to the use of cognitive behavioral therapy to help individuals with cognitive deficits (Summerall, 2008).

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Medication Management Special attention should be paid to possible drug interactions in individuals diagnosed with TBI and co-occurring PTSD. These individuals may be taking medications, supplements, and over-the-counter products for various conditions such as pain, insomnia, and dizziness, in addition to surgery-associated anesthesia and antibiotics. Fluid changes resulting from procedural treatment of burns, amputations, infections, and other traumatic injuries may affect the action and interaction of drugs. Moreover, individuals with TBI may be hypersensitive to medicinal effects and corresponding side effects. Medications have proved helpful in treating depression, seizures, and agitation among persons with TBI (Pena, Rousselle, & Brennan, 2003). However, antipsychotic medications should be used with caution given their potential to increase negative neuropsychiatric symptoms (Rosenthal & Ricker, 2000). Impaired recall and attentiveness resulting from both PTSD and TBI can also be complicated medication management, as an individual may have difficulty accurately following dosage recommendations (Kennedy et al., 2007).

New Treatment Modalities

In recognizing the need to meet the specialized needs of veterans with TBI and PTSD in addition to those with spinal cord injuries, amputations, soft tissue trauma, vision loss, vocational limitations, and pain management issues (Craine, 2008). Support teams are specifically trained to work with patients with multiple and complex medical conditions. Service delivery is conducted through coordination and communication with network specialists, and treatment efforts entail direct care, consultation and telehealth technologies (U.S. Department of Veterans Affairs, 2007a, 2007c).

The Polytrauma System of Care Rehabilitation Centers and Network Sites serve both veterans and active duty military personnel (U.S. Department of Veterans Affairs, 2007a). Admission requirements include that an individual must meet one of the following criteria: (a) a diagnosis of PTSD and TBI, (b) a traumatic brain injury and a traumatic spinal cord injury, or (c) allegations of domestic violence must be first reported to the abuser’s superior, and (d) domestic violence is only defined as abuse when the abuse results in permanent or temporary disability/disfigurement or inpatient medical care.

The following research and practical recommendations are proposed to enhance rehabilitative support services for veterans with this new combination of disabilities.

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Intervention strategies

The importance of effective, reliable screening methods as a component of any treatment or intervention for TBI and PTSD cannot be overstated. TBI screening tools utilized by military health care facilities most frequently include magnetic resonance imaging (MRI) and computed tomography, with the military vowing to administer a MRI to any service member requesting a TBI scan or displaying symptoms indicative of TBI. Unfortunately, accessibility impediments, including extensive procedures and convoluted and place the burden of proof on the veteran which may bring about by combat incurred injuries such as TBI and PTSD. Swords to Plowshares, Veterans for America, and Veterans and Families exemplify groups that offer a wider range of information, resources, and services for veterans with this new combination of disabilities.

Recommendations

The following research and practical recommendations are proposed to enhance rehabilitative support services for veterans with this new combination of disabilities.
8. Expanded treatment options. Based on our understanding of promising practices to improve the quality of life for individuals with PTSD as well as those developed for those with TBI, a number of possible interventions involving computer technology, cognitive restructuring, and behavioral techniques could be developed for those with co-occurring TBI and PTSD.

9. Networking among service providers. Increase resource sharing and partnership formation among government and community-based services and organizations working to aid veterans would likely maximize rehabilitation efforts for veterans with co-occurring TBI and PTSD.

10. Increased community outreach. Increasing community awareness of this new disability and the resulting barriers to treatment is encouraged to accentuate the need for additional resources, services, and research.

11. Ongoing learning. Professionals providing rehabilitative services to veterans will need to stay informed about the on-going research and developments relating to co-occurring TBI and PTSD.

Conclusion

Veterans impacted by TBI and PTSD face cumulative rehabilitation challenges that are evolving daily. Numerous physiological, psychological, cognitive and systematic barriers to recovery and community reintegration are experienced by veterans with this new combination of disabilities. It is our hope that rehabilitation counselors will be able to better serve and meet the needs of veterans impacted by TBI and PTSD through knowledge and understanding of the unique and other approaches to barriers to which this new population is exposed.

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1. Increase research concerning neurological, psychological and physical health implications. Research exploring the neuro- biological implications of acquiring both TBI and PTSD is rec- ommended. A better understanding of exactly how these two dis- abilities interact biologically, and potentially affect the manifesta- tion of symptoms, will enhance a practitioner’s knowledge of what individuals impacted by both TBI and PTSD experience that is unique in comparison to mutually exclusive diagnoses. Continued research into co-occurring TBI and PTSD and its impact on the service member’s physical and psychological health, as well as societal reintegration efforts, is further recom- mended. Rehabilitation supports could then be better crafted to serve individuals’ specific needs.

2. Research on employment outcomes for veterans. Researchers in rehabilitation counseling and other disability-related areas need to explore which treatment and intervention modalities provide the most positive vocational outcomes. Such knowledge will aid the rehabilitation counselor in collaborating productively with the job seeker who has both TBI and PTSD.

3. Clinical considerations. Rehabilitation counseling profes- sionals serving veterans with both TBI and PTSD may need to consider applying an extended period of evaluation, offering counseling/therapy, and assistive technology among other indi- vidualized services.

4. Bureaucratic/systemic improvements. Exceptional care and consideration in reintegration for their respective com- munities and families is of utmost importance. While the United States Department of Veterans Affairs, the Department of Defense, and the military service branches continue to address bureaucratic inefficiencies, we stress that further delays and obstacles be reduced and additional supports be implemented for veterans, particularly those impacted by the unique set of barriers that exists with the combination of TBI and PTSD.

5. Examination of impact on the family. Familial supports and needs of individuals who incur these co-occurring disabilities need to be further examined and addressed. This includes the impact of care for veterans with combined TBI and PTSD on aging parents and spouses, domestic violence, marital/relationship and sexual difficulties, and child rearing issues.

6. Advocacy within criminal justice system. Advocacy efforts should increase in reference to criminal justice issues for veterans who have legal problems. Criminal justice procedures and proto- cols often create barriers for receiving care and treatment for service related injuries such as TBI and PTSD need to be examined and alternatives implemented that allows veterans to receive the care and support they need to effectively rehabilitate.

7. Screening improvements. Screening improvements that facili- tate earlier detection and treatment of co-occurring TBI and PTSD are needed. Early detection and diagnosis would likely expedite the specialized care and support services that are needed by the veteran.

8. Expanded treatment options. Based on our understanding of promising practices to improve the quality of life for individuals with PTSD as well as those developed for those with TBI, a num- ber of possible interventions involving computer technology, cog- nitive restructuring and other approaches could be developed for those with co-occurring TBI and PTSD.

9. Networking among service providers. Increase resource shar- ing and partnership formation among government and communi- ty-based services and organizations working to aid veterans would likely maximize rehabilitation efforts for veterans with co-occurring TBI and PTSD.

10. Increased community outreach. Increasing community awareness of this new disability and the resulting barriers to tran- sition is encouraged to accentuate the need for additional resources, services and research.

11. Ongoing learning. Professionals providing rehabilitative services to veterans will need to stay informed about the on-going research and developments relating to co-occurring TBI and PTSD.

Conclusion
Veterans impacted by TBI and PTSD face cumulative reha- bilitation challenges that are evolving daily. Numerous physiolog- ical, psychological, cognitive and systemic barriers to recovery and community reintegration are experienced by veterans with this new combination of disabilities. It is our hope that rehabilita- tion counselors will be able to better serve and meet the needs of veterans impacted by TBI and PTSD through knowledge and understanding of this new experience and barriers to which this new population is exposed.

References

Wood, D., Murphy, J., Center, K., McKay, L., Reeves, D., Pyne, J., et al. (2007, April). Combat-related post-traumatic


Appendix 1

Internet Resources for Veterans with TBI/PTSD and Their Families

Resource Description and Website address

National Center for Post-Traumatic Stress Disorder
http://www.ncptsd.va.gov/nct_main/index.jsp
Information regarding PTSD for families, service providers, and military service members

Defense and Veterans Brain Injury Center
http://www.dbic.org/index.html
Provides information pertaining to traumatic brain injury including patient care, research, education, and links to related sites

Tricare (Military Health Insurance)
http://www.tricare.mil/
Contains information on the military health system, eligible provider information, and other information for military personnel and their family

TvWest
http://www.tvr.mil/west/
Military health insurance information for individuals living west of the Mississippi

Substance Abuse and Mental Health Services Administration - US Department of Health and Human Services
Substance abuse and mental health information and resources including webcasts, conferences, and resources for families coping with trauma

My Health Vet
http://www.myhealth.va.gov/
Veterans Affairs related health and benefits information

My Hoorah for Health
http://www.myhealth.va.gov/deployment/familymatters/
Health information and resources for Army personnel and their families

Family Resources
Deployment Health and Family Readiness Library
http://deploymenthealthlibrary.the.osd.mil/home.jsp
Deployment information for service members and families, as well as service providers

Military Family Resource Institute
http://www.cfis.purdue.edu/mfi/
Provides research and information relating to military families

Veterans and Families
http://www.veteransandfamilies.org
Information and resources specific to veterans and families, including topics regarding mental health, transition assistance and service provision

Air Force Crossroads
http://www.afcrossroads.com/
Information/resources designated for Air Force personnel and their families

Appendix 1 (continued)

Internet Resources for Veterans with TBI/PTSD and Their Families

Resource Description and Website address

Marine Corps Community Services
http://www.usmc-mccs.org/
Information about the military lifestyle, retirement information, and services offered to Marine s Corp service members and their families

The Coming Home Project
http://www.cominghomeproject.net
Workshops and retreats for Iraq-era veterans and their families.

Operation First Response
http://www.operationfirstresponse.org
Provides clothing, toiletries, housing cost and transportation assistance and phone cards for injured veterans

My Army Life, Too
http://www.myarmylife2oo.com/
Information specific to service members in the Army, including deployment, benefit, and financial resources

Lifelines Services Network
http://www.lifelines.mil/lifelines/index.htm
Information for Navy personnel and their families

Benefit, Advocacy, and General Resources

Veterans Affairs: Benefits for Veterans and Dependents
http://www1.va.gov/opa/vadocs/Tedben.pdf
Information relating to benefits and programs for veterans and their families

Veterans Affairs: Directory of Veteran Service Organizations
http://www1.va.gov/vso/index.cfm
List of veteran service organizations

Veterans of America: Veterans Self-Help Guide to VA Claims
Information to aid in making a disability claim with the Veterans Benefits Administration

Employment and Education Resources
Veterans Employment Center
http://jobsearch.usajobs.opm.gov/veteransearch
Federal job listings, veteran’s employment preference, and training assistance

Employer Support of the Guard and Reserve
Information relating to benefits and programs for veterans and their families

Vet Jobs
http://www1.va.gov/vso/index.cfm
List of veteran service organizations

Vet Success
http://www.lifelines.mil/lifelines/index.htm
Information for Navy personnel and their families

Links

http://www.military.com/spouse
Targetsmilitaryspouses,providingjobsearchtoolsandcareeradviceandinformation

http://www.cominghomeproject.net
Workshops and retreats for Iraq-era veterans and their families.

http://www1.va.gov/opa/vadocs/Tedben.pdf
Information relating to benefits and programs for veterans and their families

List of veteran service organizations

Information to aid in making a disability claim with the Veterans Benefits Administration

http://jobsearch.usajobs.opm.gov/veteransearch
Federal job listings, veteran’s employment preference, and training assistance

Information relating to benefits and programs for veterans and their families

http://www1.va.gov/vso/index.cfm
List of veteran service organizations

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<tr>
<td>Family Resources</td>
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<td>Military Family Resource Institute</td>
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Benefit, Advocacy, and General Resources

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| Directory of Veteran Service Organizations | http://vets.va.gov/index.cfm |
| Employment and Education Resources | http://jobsearch.usajobs.opm.gov/veterancenter |
| Employer Support of the Guard and Reserve | http://www.eesv.org/ |
| Vet Jobs | http://www.vetjobs.com/ |
| Military Spouse Career Center | http://www.military.com/spouse |
| Vet Success | http://vetsuccess.gov/ |

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<td>Milspouse</td>
<td><a href="http://www.milspouse.org/">http://www.milspouse.org/</a></td>
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<tr>
<td>Montgomery GI. Bill</td>
<td><a href="http://www.gibill.va.gov/GI_Bill_Info/benefits.htm">http://www.gibill.va.gov/GI_Bill_Info/benefits.htm</a></td>
</tr>
<tr>
<td>Coalition to Salute America’s Heroes</td>
<td><a href="http://www.saluteheroes.org">http://www.saluteheroes.org</a></td>
</tr>
<tr>
<td>Wounded Warrior Project</td>
<td><a href="http://www.woundedwarriorproject.org">http://www.woundedwarriorproject.org</a></td>
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A website created with Monster.com to provide job listings for veterans.

Connects veterans and transitioning service members with high quality career planning, training, and job search resources available at local One Stop centers. Provides individualized state resources for veterans, including job search, educational, national Guard/Reserve, and homeless veteran resources.

Provides information concerning Montgomery GI. bill education benefits.

Provides financial aid, career assistance and accessible housing for wounded veterans and their families.

Provides career and benefit counseling in addition to sports opportunities.

The psychometric properties of two recovery-oriented measures—empowerment and confidence—were examined among 296 veterans with a psychiatric disability enrolled in a peer education program. Interviews occurred at enrollment, with follow-ups at one, three and nine months. At all three time points, internal consistency scores ranged from good to excellent on the Empowerment Scale (ES) and Mental Health Confidence Scale (MHCS), with Cronbach’s alphas in the .83 and .93 range, respectively. Thirty-day test-retest reliability was also good (range = .74-.75), with scores declining predictably as the time interval between administrations increased. Finally, the two measures displayed good convergent validity by correlating well with each other, and good discriminant validity through generally low correlations with theoretically unrelated constructs. These findings, combined with the fact that mean scores on the ES (2.96) and MHCS (66.11) were consistent with previously-reported norms, lead to the conclusion that these are reliable and valid measures among veterans with psychiatric disabilities.

The key words “recovery” as used in every day language is taken by most people to mean a cure, or the complete absence of illness. In the mental health field, the term has increasingly been given a broader meaning that addresses the multi-faceted process of living a full and meaningful life with a mental illness (Resnick, Fontana, Lehman, & Rosenheck, 2005). With the release of prominent commission reports such as the President’s New Freedom Commission report (President’s New Freedom Commission on Mental Health, 2003) and SAMHSA’s National Consensus Statement on Recovery (e.g., SAMHSA, 2004), as well as the growing recognition of the importance of broader conceptualizations of living with mental illness, identifying tools for reliably and validly measuring recovery has become increasingly necessary. As Mancini (2008) has mused, based on the high level of interest in the recovery concept, one might expect the field to have developed empirically-supported definitions of the term and to have identified well-defined recovery-oriented practices supported by scientific data. Yet there is little consistency or consensus across recovery definitions (Resnick et al., 2005; Silverstein & Bellack, 2008), with the same terms sometimes used to describe different constructs, and different terms used to describe similar constructs, making it difficult to generalize across studies. For example, Figure 1 is an illustration of some potential recovery domains. In this figure self-esteem and optimism are included twice, representing different theoretical perspectives on their placement in a recovery definition.

Empowerment is an often cited recovery domain that has been linked empirically with participation in peer support (Burti et al., 2005; Dumont & Jones, 2002; Resnick & Rosenheck, 2008; Rogers et al., 2007), working for pay, and participation in family psycho-education (Resnick, Rosenheck, & Lehman, 2004). Rogers et al. (1997) using a mixed-methods approach, created a tool to measure empowerment, and identified five subordinate factors: self-esteem/self-efficacy, power-powerlessness, community activism and autonomy, optimism and control over the future, and righteous anger. Carpinello et al. (2008) identified a related concept, confidence, with similar components to those identified by Rogers et al.: optimism, coping, and advocacy, suggesting an overlap between the operationalization of empowerment by Rogers et al. and that of confidence by Carpinello.

The current study is an evaluation of the psychometric properties of these two measures and their interrelationships. We examine the internal consistency and test-retest reliability for each measure and examine convergent and discriminant validity of both the total scale and subscales in a sample of veterans receiving community-based outpatient mental health services.