TBI and Polytrauma  ： Challenges with Community Reintegration

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Abstract

Providing excellent medical care and support for returning Active Duty Service Members from the conflicts in Iraq and Afghanistan remains a high priority for the Department of Defense (DoD) and the Department of Veterans Affairs (VA). Current literature reports a high frequency of multiple co-morbid conditions including traumatic brain injury (TBI), post traumatic stress disorder (PTSD), and chronic pain. Symptoms from these three conditions can become barriers to successful return to work and school. Common symptoms will be reviewed with discussion on rehabilitative efforts to overcome these barriers. Ideal management of this re-integration is best handled in an interdisciplinary manner by an experienced rehabilitation team. This article reviews the presentation “TBI and Polytrauma  ： Challenges Associated with Community Reintegration” presented at the 34th Annual Congress of the Japan Higher Order Brain Dysfunction Society as part of the Japan-US Exchange.

Key Words  ： Traumatic Brain Injury (TBI), Polytrauma, Health Services Need and Demand, United States Department of Veterans Affairs

Disclaimer

The viewpoint expressed in this article is that of the author and does not reflect the official view of either Georgetown University or the Washington DC VA Medical Center.

Introduction

Providing excellent medical care and support for returning Service Members from the conflicts in Iraq and Afghanistan has been of utmost priority for the Department of Defense (DoD) and the Department of Veterans Affairs (VA). Approximately 1.25 million Service Members have left Active Duty service since the start of the Global War on Terror (GWOT) and 50% have accessed the VA for care (Analysis of VA Healthcare). The RAND report from 2008 summarizes survey results of nearly 2000 Service Members and estimated that over 19% may have experienced Traumatic Brain Injury (TBI) and 31% may have sustained TBI or have deployment related mental health condition such as post traumatic stress disorder (PTSD) or depression.

Re-integration back into civilian setting can be a challenge for returning Service Members, especially if they may be experiencing post-concussive symptoms or symptoms related to depression or PTSD.

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Discussion

The VA has instituted a TBI screening program for every Veteran who has left active duty service after September 2001. A four question TBI screen is triggered for this Veteran cohort and those with a positive screen are referred for an in-person clinical evaluation by a TBI specialist (VHA Directive 2010-012). Those individuals with history of TBI and ongoing rehabilitation needs are provided an individualized rehabilitation plan of care addressing medical, psychological, and social needs. Many Veterans have experienced challenges returning to work and school.

The Department of Defense (DoD) and Department of Veterans Affairs (VA) has adopted a common definition of mild TBI (mTBI). This definition is a “traumatically induced physiological disruption of brain function manifested by at least one of the following: loss of consciousness less than or equal to 30 minutes, loss of memory for events immediately before (retrograde amnesia) or events after the accident (post-traumatic amnesia) less than or equal to 24 hours, any alteration in mental state at the time of the injury (dazed, disoriented, confused), presence of focal neurological deficits, or if given a GCS score no less than 13 (VA/DoD Clinical Practice Guidelines for Concussion).

Identifying individuals with mTBI may be challenging as often there is no visible sign of mTBI and the neurological exam is often unremarkable. Presentation of the patient with a history of concussion depends on several factors including severity of injury, comorbid conditions, time since injury, and location of injury.

Symptoms following mTBI are commonly grouped into three broad categories of cognitive, physical, and emotional or behavioral issues. None of these symptoms are specific for mTBI and can occur in a relatively high frequency in the general population. In fact, Vanderploeg et al studied individuals without concussion and approximately 20% endorsed symptoms to potentially qualify for a diagnosis of post-concussion syndrome. Many of these symptoms may have adverse effects on function in the home setting but also in the community affecting both work and school. It is a challenge to the rehabilitation team to identify such issues and to develop and teach compensatory strategies to minimize the functional impairment from these symptoms.

Common cognitive symptoms endorsed following mTBI include attention and concentration difficulties, slow information processing, impaired learning and memory, and impaired executive functioning. Cognitive issues may become apparent in individuals when returning to community based activities and may present as difficulty remembering appointments, forgetting to pay bills, being easily distracted, and having difficulty with multi-tasking. Potential accommodations may include use of notebooks, calendars, or sticky notes to record information for easy retrieval, providing written as well as verbal instructions, reducing distractions in the work area, planning for uninterrupted work time, and dividing larger assignments into smaller tasks and steps.

Behavioral and emotional consequences of mTBI may include irritability, impulsivity, depression, anxiety, and difficulty with social skills. These behavioral and emotional symptoms may manifest as an individual with mTBI now having a “short fuse” when dealing with others, getting stressed easily with changes to normal routine, misreading social cues, and possibly making rash decisions.

Common physical symptoms reported following mTBI include headache, dizziness, tinnitus, blurry or double vision, fatigue, and sleep problems. These physical symptoms may affect the individuals work or family in the following manner: headache may contribute to increased irritability, fatigue may limit involvement in family activities or effectiveness of study habits, and mood or memory may become worse later in the day.
secondary to fatigue.

It is important to consider how TBI may affect parents and their interaction with their children. Parenting skills may change following mTBI and this may affect the parents’ organizational skills, scheduling ability, and anger management. Following a TBI, the role of the parent may change which may alter the family dynamic. There may be a greater involvement of the extended family to assist in providing care for the parent with TBI.

There has been considerable attention from the medical community regarding the common co-morbid conditions of mTBI and PTSD. However Lew et al describes the “Polytrauma clinical triad” of post-concussion symptoms, PTSD, and chronic pain that was noted in over 40% of OEF/OIF Veterans seen at the Boston Polytrauma Network Site. This article further highlights the multiple symptoms and complex needs of this patient population trying to re-integrate into civilian life.

It is essential that treatment of residual symptoms following TBI, whether due to the TBI or other comorbid conditions, is individualized and provided in an interdisciplinary manner. The VA has implemented a TBI/Polytrauma System of Care to provide rehabilitative care for Service Members and Veterans with TBI, both mild and severe (VHA Directive 2009–028). As part of the Polytrauma System of Care the Washington DC VA Polytrauma Network Site team provides interdisciplinary rehabilitation services for Veterans in the Washington DC area with TBI and ongoing rehabilitation needs. The team was polled regarding specific challenges for Veterans with TBI returning to school and developed a list of common issues. Team members identified challenges as well as potential interventions. Impaired memory and concentration was a common challenge and often presented as the Veteran noting that he or she was easily distracted and had poor recall. Potential interventions included using a tape recorder to record lectures, having note takers to record lecture presentations, and providing a low distraction environment for tests.

Impaired judgment and impaired self awareness was a common issue also noted by the rehabilitation team. This was at times demonstrated by Veteran students reporting the following: that they were “doing fine” yet had no idea of their grade, registering for multiple classes and not having adequate time to study, and taking online classes and not realizing the need to keep up with the class since they were not provided in-person feedback that they would have received in a traditional classroom setting. The rehab team suggested the possibility of obtaining more frequent feedback/grades, scheduled time to study, and counseling efforts to focus on setting realistic schedules and course load.

Poor initiation was noted to be a common issue in OEF/OIF Service Members with a potential adverse effect on successful return to school. This may present as challenges with maintaining a schedule, planning time for studying, and seeking out feedback on performance throughout the duration of the course. Helpful interventions may include assisting with class schedules and scheduling times for direct feedback from the class instructor during the initial portion of the course to allow time for adjustment prior to the end of the course.

Pain issues are frequently reported by returning Service Members, most notably headache and back pain. Potential helpful interventions include maximizing the use of non-pharmacologic modalities and avoiding opioids due to potential adverse effect on cognition. Headache logs can be helpful to provide feedback to the provider and to identify potential headache triggers. In addition, the beneficial effects of exercise for pain management should be stressed and implemented into each individualized treatment plan.

Tinnitus is a common problem reported among OEF/OIF Veterans and can be problematic when the individual is in a quiet environment such as a classroom. A referral to an audiologist is recommended for a com-
prehensive evaluation of hearing. Potential interventions to help in the classroom setting would include use of a recording device so that lectures can be replayed at a later time. Consultation with the audiologist can also be helpful to manage tinnitus.

Vision issues are also frequently reported by this patient group. Vision issues found after head injury include convergence insufficiency, accommodative disorder, and double vision. Certainly a comprehensive eye evaluation is recommended. Integration of an ophthalmologist or optometrist with interest in TBI on the rehabilitation team may result in successfully compensating for functional limitations due to vision issues. Potential interventions include vision therapy, corrective lenses, and use of prisms.

Veterans frequently endorse symptoms of anxiety and note difficulty dealing with crowds and higher stress levels associated with tests and assignments. Potential interventions to address anxiety include psychotherapy and exercise. It is essential that Mental Health is integrated within the rehabilitation team to address not only anxiety but other mood related issues.

Finally many Veterans report that they do not feel adequate support on the college campus. Veterans are often unaware of potential assistance or feel that there is limited assistance available from the Disability Office on the college campus. Significant effort should be devoted towards educating Veterans on available services as well as educating the Disability Office on the needs of Veterans with mTBI and PTSD.

Conclusion

Readjusting to civilian life can be challenging for returning Service Members and this can be especially difficult for Veterans with history of mTBI and other potential co-morbid conditions such as depression, PTSD, and pain. This can complicate successful return to work and school. The VA has developed a comprehensive system to screen all OEF/OIF Veterans for TBI and those with a positive screen are seen for a comprehensive evaluation and development of an individualized plan of care. Veterans returning to school report several common issues including poor memory, anxiety, and pain which can adversely affect academic success. The rehabilitation team can provide successful strategies that can improve the chance for successful community re-integration.

References

