JRRD Guest Editorial

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Sensory and communication disorders in traumatic brain injury

Patients with traumatic brain injury (TBI) often present with a constellation of symptoms that may interact, persist, and exacerbate if untreated [1–7]. Recently, clinicians have noted that auditory, vestibular, and visual symptoms were frequently reported by combat returnees during their clinical evaluation and treatment [8–12]. These sensory issues are likely to negatively affect the ability of individuals with TBI to process cognitive information and perform daily tasks such as communication and ambulation. While researchers are still investigating the effects of sensory and communication disorders on rehabilitation outcome, preliminary data have shown that dual sensory impairment may adversely influence functional outcome in patients with TBI [10].

Founded by Congress in 1992, the Defense and Veterans Brain Injury Center (DVBIC) is the TBI operational component of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (www.dvbic.org) [13]. With its headquarters in the nation's capital region, DVBIC has been a bridging force between the U.S. Military Health System and Veterans Health Administration, as well as academic and private rehabilitation facilities, all of which share the common goal of providing the best care to servicemembers and Veterans with TBI. As a part of its mission, DVBIC has continued to support educational initiatives and research programs so that clinicians can learn and implement the highest quality of evidence-based practice. This special issue on sensory and communication disorders in TBI represents another endeavor to highlight the latest findings by clinicians and researchers who serve patients with TBI. It contains a wide spectrum of high-quality articles, encompassing innovative research findings, insightful clinical observations, focused reviews, and consensus expert opinions. The following topics are discussed:

1. Multisensory impairment reported by Veterans with and without TBI.
2. Sensorintegrative dysfunction underlying vestibular disorders after TBI.
3. Audiological issues and hearing loss among Veterans with mild TBI.
4. Central auditory processing by individuals exposed to high-intensity blasts.
5. Telehealth tinnitus management for persons with and without TBI.
6. Blast exposure and dual sensory impairment.
7. Implications of blast exposure for central auditory function.
8. Visual symptomatology and referral patterns for Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) Veterans with TBI.
9. Vergence in mild TBI.
10. Visual attention in OIF/OEF Veterans.
11. Relationship of screen-based symptoms for mild TBI and mental health problems.

12. Mild TBI and pain in OIF/OEF Veterans.
13. Preliminary framework for a familiar auditory sensory training task during coma recovery.
14. Preliminary studies on differential expression of auditory functional genes in the brain after repeated blast exposures.

Throughout its preparation process, this special issue has generated enthusiastic responses from a wide range of subject matter experts who have worked diligently with the editorial staff and volunteers to bring this project to fruition. A key focus has been to increase health professionals' awareness of the diverse sensory and communication disorders that may result from a TBI so that a team-oriented, patient-centered rehabilitation plan can be formulated and implemented expediently, thereby enhancing the likelihood of an optimal outcome [14]. The issue also includes a synopsis prepared by expert speech-language pathologists who work in the military, Department of Veterans Affairs, and civilian systems that summarizes their experience and identifies recommendations for the management of cognitive-communication problems after combat-related mild TBI. As we receive more articles on the expressive communication deficits related to TBI, another special issue may be warranted. We hope that our readers will find these articles to be both academically stimulating and clinically useful.

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