Introduction to Special Issue

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Introduction

This special issue of *Psychological Injury and Law* focuses on traumatic brain injury (TBI), a very prevalent condition among pediatric and adult populations, which is often the result of a compensable injury and, therefore, the subject of litigation. The proliferation of lawyers obtaining neuropsychological consultation, is exemplified by a recent ‘Lexis’ search conducted by Kaufmann (2009), which revealed 4,385 cases using the root term “neuropsycholo-” during the previous 70 years. Interestingly, 71% of these cases were adjudicated in the last decade. Using polynomial regression techniques to project for the next 15 years, Kaufmann (2009) predicted a burgeoning increase in the legal system’s reliance on neuropsychology. Because of their training in scientific methods for quantifying behavior, the neuropsychologist is particularly well-suited to address TBI from a forensic standpoint. Thus, this special issue is presented with a TBI focus from several different areas of clinical and forensic neuropsychological practice as well as from the research standpoint.

Focusing on a target audience of attorneys and their paralegal staff within a personal injury population, the first paper by Richards and Kirk provides a TBI ‘tutorial’ with the stated goal to “...facilitate cross disciplinary communi-

cation between attorney and neuropsychologist expert.” Unlike previous publications that primarily address adult Mild TBI, this manuscript is distinguished by its coverage of all-severity (mild, moderate, and severe) TBI, with an entire section devoted to pediatric TBI. The oft-neglected pediatric population is presented within the context that in the USA alone, more than one million children and adolescents sustain a TBI each year. Richards and Kirk encourage plaintiff and defense counsel to carefully identify the neuropsychologist expert witness with expertise in pediatric TBI and become educated on the unique concerns and information essential in trying such cases. The paucity of literature regarding symptom validity testing in pediatric populations that is essential in determining whether test results are valid is also covered. Overall, these authors present epidemiological data, clarify ambiguities in terminology, review best practice for diagnosis, and discuss moderating variables for outcome and relevant information in determining causality.

Robert Sbordone contributed two articles to this issue, which he informs us will be his last papers prior to retiring after an illustrious career. Over the past four decades of being a scientist–clinician, Sbordone’s two most recognized contributions to the scientific literature are the topics of the two papers he authored for this issue. He led the way to assert that posttraumatic stress disorders (PTSD) and TBI are caused by unique and not overlapping injury characteristics. Thus, he has emphasized that a TBI cannot be the cause of a PTSD, per se. Since he first asserted this viewpoint in a paper published in 1995, the fields of TBI and PTSD have exploded and a controversy has emerged. Sbordone and Ruff’s paper attempts to deal with this controversy by delving into the complexity and circumstances when both diagnoses should not be applied and under what circumstances an

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individual can suffer from both. In doing so, methodological flaws are identified, especially when clinicians rely primarily on questionnaires for diagnosing PTSD in TBI patients. However, the viewpoint is maintained that distinct etiologies cause PTSD and TBI, and therefore they do not fully overlap.

A second area where Sbordone has led the field is in describing the flaws and limitations of applying neuropsychological tests of executive functioning to a patient's ability to function in her or his daily life. Sbordone summarizes in detail in his second article how the lack of ecological validity for measures of executive functioning represents a significant challenge in the field of forensic neuropsychology. We are delighted that Dr. Sbordone agreed to summarize his life's work in these two papers and we dedicate this issue to his professional contributions that have advanced the field of clinical neuropsychology.

In the next article, 'Neuroimaging in MTBI,' Bigler provides the clinician, researcher, and attorney with a scholarly review of magnetic resonance imaging (MRI) in this controversial patient population. In the first of the two papers to which Erin Bigler contributed for the special issue, MRI is compared/contrasted with 'day-of-injury' and follow-up CT. Also, important distinctions between 'complicated' and 'uncomplicated' MTBI are made from the neuroimaging and neuropsychological-outcome standpoints. Several methods of image analysis that are unique to MRI (especially with 3.0T field strength) that are reportedly specific in detecting white matter integrity are reviewed: these include diffusion tensor imaging (DTI), fluid attenuated inversion recovery, and magnetic resonance spectroscopy. Moreover, a separate section is devoted to functional neuroimaging (fMRI). We hope that future research will be stimulated by Bigler's caution to the reader that: "...just like DTI, functional neuroimaging of mTBI is still in its developmental stage with no universal standards or recommendations published at this time for its clinical use in mTBI."

Finally, Wu, Allen, Goodrich-Hunsaker, Hopkins, and Bigler present a controlled study of fMRI analyses of two patients with severe TBI during completion of certain subtests of the Word Memory Test (Green 2003), a symptom validity test (SVT) that is widely used by forensic neuropsychologists. As of this writing, this pioneering study represents the first investigation into fMRI correlates of both good and simulated poor-effort on SVT-performance in two patients with well-documented severe TBI. The clinical and forensic implications of their findings will almost certainly stimulate future research.

In closing, the articles comprising this special issue highlight the complicated interaction that can occur when an individual with a diagnosis of TBI collides with the legal system. It is our hope that a dispassionate review of the full continuum of TBI (mild, moderate, and severe) across the lifespan will lead to more appropriate use of the forensic neuropsychologist. Moreover, reviewing the most recent scientific information on the role of neuroimaging and comorbid diagnosis of PTSD, particularly with the MTBI diagnosis, will contribute to a better understanding of this controversial condition. We hope that discussing limitations of measures that purport to measure executive functioning will promote development and eventual publication of new tests in this area.

The area of psychological injury and law is heavily defined by the work and research of neuropsychologists. This special issue is another step in this direction to which the journal is dedicated.

References

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