

Military and Veterans

Traumatic Brain Injury Screening for the Armed Forces

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Code Section Affected

Military and Veterans Code § 399.5 (new).
SB 1401 (Simitian); 2008 STAT. Ch. 593.

I. INTRODUCTION

Imagine waking up in a hospital room unable to remember recent events, incapable of hearing or speaking, unable to find the words to express your thoughts, and mistaking nurses for CIA operatives. This was the reality for Sgt. David Emme after an improvised explosive device (IED) detonated next to his vehicle while his party transported Iraqi volunteers for military training.¹ In addition to his obvious physical injuries, he suffered traumatic brain injury (TBI), which significantly affected his cognitive abilities.² The injury limited his speech and dramatically impaired his deductive reasoning, problem-solving, and other cognitive functions.³ For an estimated one out of five troops fighting in Iraq and Afghanistan, this is common occurrence after sustaining an injury to the head, neck, or face.⁴

An estimated sixty-seven percent of veterans of Operation Iraqi Freedom (OIF) suffer from TBI.⁵ Fortunately for Sgt. Emme, with proper treatment he showed a near-complete recovery, to the point of taking online college courses.⁶ Unfortunately for others, this level of recovery is rare.⁷ Given the nature of this injury, it was imperative that the Legislature take steps to provide the appropriate health-screening resources to mitigate the potentially permanent injuries associated with TBI. By providing an outreach program and other healthcare resources to help combat TBIs, Chapter 593 is a step in the right direction, but

1. Susan Okie, *Traumatic Brain Injury in the War Zone*, 352 NEW ENG. J. MED. 2043, 2043 (2005).

2. *Id.* at 2043-44.

3. *Id.* at 2044.

4. See SENATE FLOOR, COMMITTEE ANALYSIS OF SB 1401, at 2-3 (Apr. 16, 2008) (“[T]he exact proportion of troops returning from Iraq and Afghanistan with Mild TBI is not known, but has most recently been estimated to be on the order of one in five.”); Okie, *supra* note 1, at 2044 (stating that twenty-two percent of injured soldiers passing through a medical center in Germany suffered head, face, or neck injuries).

5. Helen D. O’Conor, *Federal Tort Claims Act is Available for OIF TBI Veterans, Despite Feres*, 11 DEPAUL J. HEALTH CARE L. 273, 274 (2008).

6. Okie, *supra* note 1, at 2044.

7. See *id.* (“Emme got better much more rapidly than many . . . patients with TBIs, some of whom have severely impaired function and show little progress.”).

more needs to be done to address the stigma associated with this illness and to deliver appropriate mental healthcare.

II. BACKGROUND

A. What is Traumatic Brain Injury?

TBI occurs when a physical trauma causes brain damage, either as a “closed head injury”⁸ or a “penetrating head injury.”⁹ Different mechanisms can cause TBI, including: (1) mechanical forces (when an object impacts the head); (2) acceleration-deceleration forces (when the brain moves within the skull, even while the head is still); (3) vascular tearing (damage to blood vessels in the brain); and (4) diffuse axonal injury (damage to neurons).¹⁰ Despite the hemorrhaging and swelling after TBI, there has been a high survival rate among those injured due to state-of-the-art field combat medical care.¹¹

TBI is considered a neurological disorder that is often associated with additional psychological disorders, such as posttraumatic stress disorder (PTSD) or depression.¹² TBI may come in mild, moderate, or severe forms, with symptoms ranging from headaches and confusion to mood changes and trouble with memory, concentration, attention, or thinking.¹³ Although severe forms of the injury, such as that which Sgt. Emme suffered, can cause a multitude of health issues, the mild form of TBI is more likely to cause latent psychological problems that may be improperly treated.¹⁴

B. A History of Traumatic Brain Injury

In the aftermath of the Vietnam War, inadequate treatment protocols left many war veterans untreated and unaware of the potentially long-lasting and

8. “A closed head injury occurs when the head suddenly and violently hits an object but the object does not break through the skull.” National Institute of Neurological Disorders and Stroke, Traumatic Brain Injury: Hope Through Research, http://www.ninds.nih.gov/disorders/tbi/detail_tbi.htm (last visited May 31, 2008) (on file with the *McGeorge Law Review*).

9. “A penetrating injury occurs when an object pierces the skull and enters brain tissue.” *Id.*

10. O’Conor, *supra* note 5, at 283.

11. *Id.*

12. Akram Y. Razzouk & Kelly L. Razzouk, *Charting a New Course Home for U.S. Soldiers Returning from Iraq: PTSD and Mild Traumatic Brain Injury—Implications and Solutions*, 11 DEPAUL J. HEALTH CARE L. 345, 345 (2008). Typical PTSD includes, “persistent re-experiencing of the traumatic event, persistent avoidance of stimuli associated with the trauma and the numbing of general responsiveness and persistent symptoms of increased arousal.” *Id.* at 349.

13. National Institute of Neurological Disorders and Stroke, *supra* note 8. Other symptoms include lightheadedness, dizziness, blurred vision or tired eyes, ringing in the ears, bad taste in the mouth, fatigue, or lethargy and a change in sleep patterns. *Id.*

14. See generally Charles W. Hoge et al., *Mild Traumatic Brain Injury in U.S. Soldiers Returning from Iraq*, 358 NEW ENG. J. MED. 453, 454 (2004) (stating that “little is known about the epidemiology” of mild TBI and its effects on soldiers after deployment).

debilitating effects of TBI.¹⁵ Many veterans who suffered TBIs during combat were belatedly diagnosed with PTSD and Agent Orange Syndrome (AOS).¹⁶ Unfortunately, the government required diagnosis of war-related injuries within two years of return.¹⁷ Thus, most of these veterans were ineligible for treatment under the Veterans Administration medical system because the diagnoses occurred more than two years after returning from the war.¹⁸ In 1992, the Department of Veterans Affairs (VA) established the Defense and Veterans Brain Injury Center (DVBIC) to implement a more specialized resource for veterans with TBI.¹⁹ Four years later, Congress passed the Traumatic Brain Injury Act, which provided yet another source of funding for TBI related research.²⁰

TBI accounts for a larger percentage of casualties among soldiers returning from Iraq and Afghanistan than it has in other recent wars.²¹ During OIF, the percentage of returning soldiers with brain injuries is nearly double that of the Vietnam War.²² Indeed, the injury has been so ubiquitous among veterans that it has repeatedly been referred to as the “signature injury” of the wars in Afghanistan and Iraq.²³ One cause for the rise in TBI may be an improvement in the protective quality of body armor and helmets.²⁴ The improved protective gear shields soldiers from penetrating injuries, specifically those resulting from IED attacks; however, the protective gear does not completely protect the brain from the shock of the physical trauma.²⁵

Current research shows two significant points relevant to this new legislation. First, mild TBI contributes to the incidence of PTSD, and second, the symptoms associated with both TBI and PTSD get worse if the injuries remain untreated.²⁶ Unfortunately, a delayed onset of symptoms renders TBI difficult to diagnose after a trauma, especially when a mild form of the injury has occurred.²⁷

15. See SENATE COMMITTEE ON VETERANS AFFAIRS, COMMITTEE ANALYSIS OF 1401, at 1 (Mar. 25, 2008) (“Many Vietnam era veterans fell through cracks in the system because they were not diagnosed within two years of separating from the service and, therefore, become ineligible for the Veterans Administration medical system.”).

16. See *id.* (“Several years after the Vietnam War, veterans of that campaign were surfacing with maladies that today are most commonly recognized as [AOS] and [PTSD] . . .”). During the Vietnam War certain chemicals were used to enhance visibility that later were found to cause AOS, which resulted in severe skin damage and chronic systemic and neurological dysfunctions. O’Conor, *supra* note 5, at 279.

17. SENATE COMMITTEE ON VETERANS AFFAIRS, COMMITTEE ANALYSIS OF SB 1401, at 1 (Mar. 25, 2008).

18. *Id.*

19. O’Conor, *supra* note 5, at 275. The DVBIC, which is funded by the Department of Defense, established medical care, clinical research, and education centers for veterans. *Id.*

20. *Id.* at 300-01.

21. Okie, *supra* note 1, at 2044-45.

22. See *id.* at 2044.

23. Razzouk & Razzouk, *supra* note 12, at 346.

24. Okie, *supra* note 1, at 2045; Hoge et al., *supra* note 14.

25. See Okie, *supra* note 1, at 2045.

26. SENATE FLOOR, COMMITTEE ANALYSIS OF SB 1401 (Apr. 16, 2008).

27. *Id.*

Considering TBI's characteristics, development of an appropriate screening process was the proper step in expanding the healthcare resources available to returning veterans in California.

C. *The Stigma Associated with Traumatic Brain Injuries*

In addition to the increased rate of TBI in recent wars, public and self-stigmatization²⁸ associated with mental injuries such as PTSD make it more difficult for veterans to seek appropriate medical care.²⁹ More than sixty percent of soldiers showing symptoms of PTSD report that they are unlikely to seek care for potential psychological injury for fear of stigmatization or loss of career opportunities.³⁰ Studies show that troops suffering from mental-health problems are twice as likely to be concerned with stigmatization because of their illness.³¹ Furthermore, the stigma is more pronounced in the military because soldiers are uniquely concerned over how a potential mental illness may be perceived by peers and by their leadership.³² As injured soldiers internalize this social stigma and develop self-stigma, their self-esteem drops.³³ A misguided approach to treatment can develop where soldiers believe they are capable of controlling their condition.³⁴

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Another layer of the stigma-concern relates to the ability to receive appropriate medical care for psychological disorders.³⁵ In the past, psychiatric diagnoses were used to strip soldiers of their healthcare benefits, providing an additional reason for soldiers' reluctance to seek care for psychological injuries.³⁶

D. *Illinois' Approach to Traumatic Brain Injury*

Illinois has taken more aggressive measures to treat war veterans suffering from TBI. In January 2008, the State passed the Illinois Warrior Assistance Program mandating TBI screening for returning National Guard members and offering similar health screenings for free to returning Iraq and Afghanistan veterans.³⁷ Specifically,

28. "Public stigma is the reaction of the general public toward people with mental illness, whereas self stigma is the internalization of how the general public portrays people with mental illness and the belief in that portrayal." Tiffany M. Greene-Shortridge et al., *The Stigma of Mental Health Problems in the Military*, 172 MIL. MED. 157, ¶ 6 (Feb. 2007), available at http://findarticles.com/p/articles/mi_qa3912/is_200702/ai_n18632406/print (on file with the *McGeorge Law Review*).

29. *Id.* ¶ 3.

30. Razzouk & Razzouk, *supra* note 12, at 354.

31. Charles W. Hoge et al., *Combat Duty in Iraq and Afghanistan, Mental Health Problems, and Barriers to Care*, 351 NEW ENG. J. MED. 13, 20-21 (2004).

32. *Id.* at 20.

33. Greene-Shortridge et al., *supra* note 28, ¶ 1.

34. *Id.* ¶ 12.

35. Razzouk & Razzouk, *supra* note 12, at 351.

36. *Id.*

37. Press Release, Rod R. Blagojevich, Governor, State of Ill., Gov. Blagojevich announces landmark Traumatic Brain Injury and Post Traumatic Stress Disorder Program for Illinois Veterans (July 3, 2007),

the PTSD arm of the Illinois program offers several services that grant combat veterans a method of circumventing the social stigma associated with PTSD.³⁸ First, it provides a twenty-four hour toll-free telephone service that connects to a call center staffed by trained medical professionals.³⁹ The phone service provides an initial over-the-phone screening as well as a determination for further screening and treatment.⁴⁰ Second, the program gives veterans access to medical care outside of the VA system, obviating the need to travel long distances for health care.⁴¹ As a result, Illinois is leading the way in developing programs that provide veterans with valuable treatment for PTSD and mild TBIs.⁴² Following Illinois' lead, and in response to the increasingly large number of veterans with TBI, California enacted Chapter 593.⁴³

III. CHAPTER 593

Chapter 593 expands the resources available to active members of the armed forces by requiring the Secretary of the California Department of Veterans Affairs (CDVA) and the Adjutant General to implement an outreach program for TBI screenings for returning veterans.⁴⁴ Eligible members include active members, reservists, and veterans of the armed forces, including members of the California National Guard.⁴⁵ The CDVA provides eligible members with healthcare coverage, including traumatic brain injury screening, for five years after active duty.⁴⁶

IV. ANALYSIS OF CHAPTER 593

A. Chapter 593 Expands the Veterans Health and Safety Act of 2006

In 2006, Senator Chesbro introduced the Veterans Health and Safety Act of 2006 (VHSA of 2006) to create a program that would ensure that California veterans are aware of their rights to federal government uranium screening.⁴⁷ Depleted uranium

available at <http://www.illinois.gov/PressReleases/ShowPressRelease.cfm?SubjectID=3&RecNum=6070> (on file with the *McGeorge Law Review*); see also Razzouk & Razzouk, *supra* note 12, at 355.

38. Press Release, Rod R. Blagojevich, *supra* note 37.

39. Razzouk & Razzouk, *supra* note 12, at 355.

40. Press Release, Rod R. Blagojevich, *supra* note 37.

41. *Id.*

42. Razzouk & Razzouk, *supra* note 12, at 355.

43. See COMMITTEE ON VETERANS AFFAIRS, COMMITTEE ANALYSIS OF SB 1401, at 1 (Mar. 25, 2008) ("Senator Simitian has modeled [Chapter 593] in an attempt to properly screen returning veterans for traumatic brain injury and to prevent a repeat of the post Vietnam era if there happens to be a rash of traumatic brain injuries from the present conflict in the war on terror.").

44. SENATE FLOOR, COMMITTEE ANALYSIS OF SB 1401, at 1 (Apr. 16, 2008).

45. See CAL. MIL. & VET. CODE § 399(c)(1) (enacted by Chapter 593) (incorporating Title 10 of the United States Code as designated by Executive Orders Nos. 12744 and 13239 of the President when defining "eligible member").

46. SENATE FLOOR, COMMITTEE ANALYSIS OF SB 1401, at 1 (Apr. 16, 2008).

47. 2006 Cal. Stat. ch. 686, § 3 (enacting CAL. MIL. & VET. CODE § 399).

is a chemically toxic and radioactive substance that “may cause kidney and lung damage, may cause cancer when inhaled or ingested, and may cause genetic mutations that are carried to future generations.”⁴⁸ The 2006 VHSA established an outreach program that raised awareness of possible uranium exposure and assists combat veterans in getting a health screening for exposure to depleted uranium.⁴⁹ Like the 2006 VHSA, which provided services to those who had potentially been exposed to uranium, Chapter 593 further expands veterans’ rights and privileges by providing more services to those with TBI.⁵⁰

B. Differences Between Depleted Uranium Exposure and Traumatic Brain Injury

A key distinction between depleted uranium exposure and TBI is that there is no stigma associated with the illnesses caused by depleted uranium exposure.⁵¹ The purpose behind the 2006 VHSA was to raise awareness that veterans may unknowingly be exposed to depleted uranium.⁵² Even though all of the health risks of depleted uranium exposure remain unknown,⁵³ studies show that there are some health risks involved with the isotopes being embedded in the body.⁵⁴ In particular, two of the primary health concerns (urinary uranium levels and negative effects on problem-solving skills) can often lead to greater illness given the subtle nature of their effects.⁵⁵ For example, an elevated level of urinary uranium has the potential to affect the reproductive system.⁵⁶ Despite the debatable health risks associated with depleted uranium exposure, legislation was enacted to raise awareness of these health risks for returning veterans.⁵⁷

TBI is different in nature from depleted uranium exposure and should be treated differently. Although both can cause subtle health changes, such as minor cognitive changes, dizziness, or blurred vision, there is a stigma associated with TBI-related illnesses that is absent for illnesses resulting from depleted uranium

48. *Id.* § 2(b).

49. *See* CAL. MIL. & VET. CODE § 399 (West Supp. 2008) (“[T]he Secretary of the California Department of Veterans Affairs . . . shall develop and implement a plan for outreach to eligible members and veterans who have returned from combat areas where depleted uranium was used.”).

50. *See id.* § 399.5(b)(2) (enacted by Chapter 593) (“Each outreach plan shall provide information to eligible members and veterans concerning *traumatic brain injury* and post-traumatic stress disorder, the possible impacts associated with traumatic brain injury and post-traumatic stress disorder, and the right to screening services.” (emphasis added)).

51. *See generally* Greene-Shortridge et al., *supra* note 28, ¶ 1 (discussing the stigma associated with different types of injuries).

52. SENATE COMMITTEE ON VETERANS AFFAIRS, COMMITTEE ANALYSIS OF SB 1401, at 2 (Mar. 25, 2006).

53. SENATE COMMITTEE ON VETERANS AFFAIRS, COMMITTEE ANALYSIS OF SB 1720, at 3 (Apr. 25, 2006).

54. *Id.*

55. *Id.* at 2.

56. *Id.*

57. *Id.* at 3.

exposure.⁵⁸ Simply raising awareness of TBI through an outreach program is insufficient to adequately treat returning veterans because mild forms of the injury cause latent psychological problems that are difficult to diagnose and treat.⁵⁹

C. *Improper Treatment of Mild TBI Is a Major Concern*

A comparison to the “signature injuries” of the past, such as the American Civil War’s amputated limbs, today’s signature injuries, such as TBI, reveal a clear evolution toward chronic, systemic illnesses that are more difficult to diagnose and treat.⁶⁰ The physical injuries that are a part of mild TBI are not the only injuries that need treatment.⁶¹ Logistic regression analyses of mild TBI data show that the reported physical health problems are largely due to PTSD or depression, which are psychological disorders.⁶² Therefore, the concern over improper treatment of mild TBI has to do with treating physical trauma, when psychological distress may be the actual root of the physical illness.⁶³ One study even states that “the majority of symptoms we might expect to be due to concussion are actually due to PTSD and depression.”⁶⁴ Early treatment of potential psychological injuries following TBI has shown significant reductions in the rate of PTSD.⁶⁵ However, due to the complexities of the various physical and psychological injuries, each patient needs an individualized treatment plan.⁶⁶

The insufficiencies in the delivery of healthcare services might cause veterans to fall through the cracks in the system, be inappropriately denied care, or literally die before benefits are granted.⁶⁷ A recent case, *Veterans for Common Sense v. Peake*,⁶⁸ shed light on some of these issues.⁶⁹ In that case, the plaintiffs were nonprofit

58. See generally Greene-Shortridge et al., *supra* note 28 (discussing the stigmas associated with different type of injuries).

59. O’Conor, *supra* note 5, at 293.

60. *Id.* at 278-79.

61. See generally Razzouk & Razzouk, *supra* note 12, at 347 (stating that physical problems associated with TBI are “mediated largely” by PTSD and depression).

62. *Id.*

63. *Id.*

64. *Soldiers’ Concussion Symptoms Tied to Stress*, MSNBC, Jan. 30, 2008, <http://www.msnbc.msn.com/id/22904216/> (on file with the *McGeorge Law Review*).

65. Razzouk & Razzouk, *supra* note 12, at 354. For instance, cognitive-behavioral therapy given at about three weeks to those with acute stress disorder, which is posttraumatic stress that occurs during the first month of a trauma, can lower the rates of PTSD. Robert J. Ursano et al., *Posttraumatic Stress Disorder: Neurobiology, Psychology, and Public Health*, 25 *PSYCHIATRIC TIMES* 16 (2008), available at <http://www.psychiatristimes.com/display/article/10168/1147506> (on file with the *McGeorge Law Review*).

66. O’Conor, *supra* note 5, at 293.

67. Amy N. Fairweather, *Compromised Care: The Limited Availability and Questionable Quality of Health Care for Recent Veterans*, 35 *HUM. RTS.* 1, 2-3 (2008).

68. 563 F. Supp. 2d 1049 (N.D. Cal. 2008).

69. See Fairweather, *supra* note 67 (“These issues were recently challenged in the landmark lawsuit, *Veterans for Common Sense v. Peake* . . .”).

organizations that focused on providing better resources to veterans.⁷⁰ They filed suit alleging that the manner in which the VA provided mental healthcare services violated statutory and constitutional rights.⁷¹ Despite recognizing the possibility that the VA was not adequately providing healthcare services, the court ultimately ruled that it lacked the jurisdiction to grant the remedies proposed by the parties, which essentially would have required a complete overhaul of the VA system.⁷²

D. Is Chapter 593 Enough?

Although Chapter 593 provides a valuable addition to the resources available to war veterans by increasing the awareness of TBI and providing an outreach program to help assist with treatment of TBI, the legislation might still fall short of its original goals. TBI is not only difficult to diagnose, especially its milder forms, but the mild form has been associated with PTSD, which is an increasingly stigmatized illness.⁷³ Although increasing awareness of the illness is somewhat successful in combating stigmatization,⁷⁴ more direct changes should be made to the system of healthcare delivery.⁷⁵ Studies have suggested that increasing the mental health services in primary-care clinics, providing confidential counseling resources, and performing routine screenings for PTSD would be more helpful in reducing stigmas and increasing accessibility to proper treatment.⁷⁶

Illinois' Warrior Assistance Program is more effective in targeting the unique stigmatization that is associated with mental health illnesses common to TBI. By mandating TBI health screening for members of the state's national guard, it allows veterans suffering from self-stigmatization⁷⁷ to receive the appropriate testing for potential illnesses.⁷⁸ Furthermore, the twenty-four hour hotline providing psychological counseling and the expansion of the available healthcare facilities beyond VA Hospitals provide veterans with more accessible resources.⁷⁹ The challenge in treating TBI among returning veterans is not that veterans are unaware of their potential injury, but rather that stigma deters veterans from seeking medical care when they suspect they have suffered such an injury.⁸⁰

70. *Veterans for Common Sense*, 563 F. Supp. 2d at 1055.

71. *Id.*

72. *Id.* at 1056, 1091-92.

73. Razzouk & Razzouk, *supra* note 12, at 354.

74. Greene-Shortridge et al., *supra* note 28, ¶¶ 20-21.

75. Hoge et al., *supra* note 31, at 21.

76. *Id.*

77. *See supra* note 28 and accompanying text.

78. Press Release, Rod R. Blagojevich, *supra* note 37.

79. *Id.*

80. Greene-Shortridge et al., *supra* note 28, ¶ 1.

E. Looking Toward the Future

New technology called Magnetoencephalography (MEG) may expand the understanding of TBI.⁸¹ By measuring the magnetic signals produced by the brain's electrical activity, MEG is being used to differentiate between different forms of TBI, PTSD, and other psychiatric disorders such as depression and anxiety.⁸² Researchers hope to design more targeted treatments by isolating the subtle differences between these illnesses.⁸³ Researchers are also working toward understanding of the difference in gene expression between these illnesses.⁸⁴ Understanding of the differences between TBI, PTSD, and other related illnesses could potentially have important implications for long-term disability and financial compensation for veterans.⁸⁵

In terms of new legislation, Congress passed the Defense Authorization Act of 2008, which extends the eligibility of VA healthcare from two to five years and streamlines TBI care by guaranteeing a mental-health appointment within thirty days of request.⁸⁶

V. CONCLUSION

Chapter 593 is a step in the right direction, but more aggressive measures need to be taken to ensure that war veterans are appropriately treated for their injuries. The nature of combat in the Middle East, with its frequent IED attacks and improved body armor, has led to an increase in TBI, certain forms of which are difficult to detect without a proper screening.⁸⁷ The difficulties in diagnosing and treating TBI are further compounded by the social stigma that deters veterans from seeking medical attention.⁸⁸ Federal and state legislators have begun to address this issue, and although California's Chapter 593 is effective in raising awareness of the injury and providing some resources, it likely falls short of an adequate solution to resolving the social stigma associated with TBI.

81. Razzouk & Razzouk, *supra* note 12, at 356.

82. *Id.* at 357.

83. *Id.*

84. *See id.* at 357-58 ("The team hopes to use MEG to 'better differentiate the biology of traumatic brain injury, post-traumatic stress disorder and other psychiatric conditions including depression and anxiety disorders.'" (quoting Alex Strauss, *Dr. Sandeep Baishnavi and Neuropsychiatry at Alexian Brothers Behavioral Health Hospital*, M.D. NEWS, Jan.-Feb. 2008, at 10, 10)).

85. *Id.* at 358.

86. Fairweather, *supra* note 67, at 24.

87. Okie, *supra* note 1, at 2044-45.

88. Razzouk & Razzouk, *supra* note 12, at 354.