

Critical Concerns in Iraq/Afghanistan War Veteran-Forensic Interface: Combat-Related Postdeployment Criminal Violence

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Identifying whether there is a nexus between Iraq and Afghanistan combat injuries and civilian violence on return from deployment is complicated by differences in reactions of individuals to combat exposure, the overlapping effects of traumatic brain injury (TBI) and posttraumatic stress disorder (PTSD), and the low base rate of civilian violence after combat exposure. Moreover, the overall prevalence of violence among returning Iraq and Afghanistan combat war veterans has not been well documented. Malingered symptoms and either exaggeration or outright fabrication of war zone exposure are challenges to rendering forensic opinions, with the risk reduced by accessing military documents that corroborate war zone duties and exposure. This article serves as a first step toward understanding what may potentiate violence among returning Iraq and Afghanistan veterans. We offer a systematic approach toward the purpose of forensic case formulation that addresses whether combat duty/war zone exposure and associated clinical conditions are linked to criminal violence on return to civilian life.

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Despite the low frequency of occurrence,¹ homicides committed by returning combat Iraq and Afghanistan veterans receive a high degree of public and media attention. The most prominent example of media attention to veteran violent offenders was the article by *New York Times* journalists Sontag and Alvarez in 2008,² in which they highlighted 121 cases of Iraq and Afghanistan veterans charged with homicide be-

tween 2005 and 2007. Of note, while Sontag and Alvarez found 121 cases of homicide by Iraq and Afghanistan war veterans as of 2008, there were approximately 1.6 million veterans who had served during the same period,³ clearly underscoring the rarity of homicide committed by these war veterans after returning from deployment. Sontag and Alvarez appeared to imply that combat trauma led to the violence by the veterans. However, the link between combat exposure and postdeployment violence may not be as linear or inevitable as media accounts represent. For example, Bureau of Justice data¹ show that 55 percent of both combat and noncombat incarcerated veterans were serving time for violent crimes. In addition, the overall prevalence of violence among incarcerated Iraq and Afghanistan war veterans has not been well documented, as much of the existing data pertain to Vietnam veterans.

Nonetheless, clinicians are likely to encounter in the forensic arena cases of lethal violence exhibited by veterans of various service eras, and increasingly, returning Iraq and Afghanistan veterans. This article

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serves as a first step toward understanding what may potentiate violence among returning Iraq and Afghanistan veterans through an overview of existing data regarding rates of postdeployment violence; an examination of the link between combat exposure and postdeployment violence; and a proposed systematic guide for the forensic clinician tasked with the forensic evaluation of a criminal defendant who is a veteran of these wars. A fictitious case example is provided to illustrate use of the guide.

Postdeployment Criminal Violence Among Iraq and Afghanistan Veterans

At the outset, it should be noted that stereotypes such as the violent “wacko-vet”⁴ are harmful to those who have served honorably in the military, as they forward a view of the combat veteran as threatening⁵ and untrustworthy.⁶ Moreover, the stereotype of the violent combat veteran is not supported by national offender data. The Bureau of Justice 2004 Survey (published in 2007) found no relationship between combat and violent crime in veterans.¹ For incarceration rates across all offenses, the most recent U.S. Department of Justice Bureau of Justice Statistics (BJS) 2004 prison data showed that rates were lower for veterans than for nonveterans: veterans were incarcerated at a rate of 630 prisoners per 100,000 adult male veteran population, less than half the rate of nonveterans (1,390 prisoners per 100,000 adult male nonveterans). In addition to overall incarceration rates, one of the authors of the current paper (J.M.), utilizing the BJS 2004 survey estimates for state and federal prisoners, compared the nonveteran violent offender rate per 100,000 population to veteran violent offender rates. The calculated male violent offender rate for veterans was 338 prisoners per 100,000 male veterans and for nonveterans was 595 per 100,000 male nonveterans. This rate can be considered as a populationwide (across adult male veteran and nonveteran populations) comparison, in contrast to the in-prison (i.e., only prison population) percentages listed in the BJS report. The rate indicates that the nonveteran violent offender rate per 100,000 adult male population is 1.75 times higher than the veteran rate. (Data available upon request from author J.M.)

Turning to combat status, the BJS 2004 survey¹ of veterans in state and federal prison in 2004 indicated that 20 percent of veterans incarcerated in state prison had served in combat, and for Federal prison-

ers, 26 percent of incarcerated veterans had served in combat. BJS found earlier (1997 survey⁷) that veterans who reported combat duty during their military service were no more likely to be violent offenders than were other veterans. Although not specific to combat status, military research has similarly found, with the exception of rape, lower rates of violent crime in the active duty Army than in the civilian population.⁸ Such findings support the view that veterans, inside and outside the military, are less violent as a population than are nonveterans.

As most of the available combat status-violent crime statistics are heavily weighted with veterans from the Vietnam era, data as to the link between combat exposure and civilian violence among Iraq and Afghanistan veterans remain limited. BJS in 2004 did find that 57 percent of veterans in state prison were serving sentences for a violent crime compared with 47 percent of nonveterans. The breakdown of the type of violent offense was 15 percent for homicide and 23 percent for sexual assault (including rape), although data were not broken out by combat/noncombat status in relation to offense rates.

Burchett *et al.*⁹ examined the facts in the 121 cases identified by Sontag and Alvarez² to clarify the association between combat exposure and violence. They used additional media outlet sources and were able to access substantially more information about the veterans than appeared in the *New York Times* article. To verify combat exposure, the researchers analyzed media reports of testimony of commanding officers or fellow unit members of decorated soldiers, war zone injuries, improvised explosive device (IED) and mortar exposure, and family reports or as determined by the unit location in Iraq. Burchett and colleagues⁹ found that all but one were male, 90 percent had served in Iraq, and two had served in both Iraq and Afghanistan. The homicide victims were strangers (35%), friends and acquaintances (19%), children (8%), or of unknown relationship in 15 percent of the cases. The most common charge was first-degree murder (56%), and 21 percent of the cases were vehicular manslaughter involving the death of a passenger of a vehicle driven by an intoxicated veteran. Of note, in less than half the cases (40%) were the extent and nature of combat exposure rated as certain. Consideration of combat exposure to sentencing or mitigation was unclear, though none received an insanity acquittal. Although the researchers cautioned that

the nature of the data as assessed through media sources did not allow for formal diagnosis, the media-based information did allow for identification of significant psychiatric symptoms. As to psychiatric symptoms present, PTSD symptoms (e.g., nightmares, insomnia, intrusive thoughts, intense anger, survivor guilt, hyperarousal, hypervigilance, depressed mood, and suicidal ideation) were identified in 70 percent of the cases ($n = 85$) through family and other court reports. It was estimated that 34 percent of the sample demonstrated only PTSD symptoms; 19 percent had PTSD and comorbid substance abuse; and almost 17 percent displayed a combination of PTSD, substance abuse, and antisocial personality disorder (ASPD). Of note, 39 of the cases were found to have significant features of ASPD, such as homicide for material gain committed in the course of another felony such as a robbery, cautioning against the conclusion that combat exposure explained the postdeployment violence.

Link Between Combat Exposure and Violence

The credibility of a combat-linked defense is challenged by the infrequency with which combat veterans with similar war zone exposure and diagnoses commit murders or serious violence. One conceptual model, that of diathesis-stress¹⁰ is of value in understanding the process of emotional derailment that leads to lethal or serious violence among a small subgroup of Iraq and Afghanistan combat veterans. The diathesis-stress theoretical model describes the genetic predisposition (vulnerability or strength) and its interaction with life stressors that lead to the development of a disorder. In the veteran context, the veteran's intrinsic resilience (diathesis) may become vulnerable to deterioration due to combat exposure and injury (stress) when confronted with cumulative stressors in the civilian arena, thereby leading to decompensation of inner controls and subsequent violence. Diathesis stress was in fact employed over 60 years ago by the California Supreme Court in *People v. Danielly*,¹¹ a case of murder committed by a World War II combat veteran. In that case, the defendant argued that he had no recollection of the killing because of his combat-related nervous disability and therefore the murder conviction should be reduced to manslaughter. That nervous disability (diagnosed then as psychoneurosis neurasthenia, for which he was discharged from the military) would now likely

be diagnosed as PTSD given his symptoms of startle, battle dreams, anxiety, irritability, and insomnia. Moreover, the defendant had been injured by the explosion of an enemy bomb and could have incurred, in current diagnostic parlance, traumatic brain injury as well. The lower courts rejected the defendant's insanity plea. While the California Supreme Court ultimately affirmed the lower court's judgment of the murder conviction, the higher court acknowledged the veteran-defendant as a victim of war. The court noted that the war experience had hampered the veteran's emotional stability and that his ability to cope with the demands of life (diathesis) had been impaired by his war injury (stress).

PTSD as a defense used in homicide cases gained credibility once this diagnosis was included in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) in 1980.¹²⁻¹⁴ This diagnosis has been successful, on occasion, in defense arguments for sentencing mitigation (such as diminished capacity) or exculpation (such as insanity defenses) among Vietnam veterans facing criminal charges.¹⁵⁻¹⁷ Expressed symptoms are more likely to be malingered, given that PTSD is widely known by the public and applied to numerous civilian traumatic experiences (e.g., school shootings, car accidents, sexual assault).¹⁷ Jurors may have experienced trauma themselves (or have family members, friends, or coworkers who have) that could cause a stress disorder, yet that trauma did not provoke severe violence; thus, the trauma defense may not be viewed as legitimate. Miller¹² further noted that so-called combat addiction (i.e., hyperarousal and thrill-seeking) may be misattributed to PTSD and in some cases more correctly attributed to antisocial personality. Therefore, the forensic expert must be able to explain the unique aspects of Iraq and Afghanistan war zone exposure and how these elements may have a nexus with the development of conditions that create vulnerability for aggressive behavior. We next turn to an examination of the types of injuries that are represented in this group of returning veterans and their impact on anger and aggression.

Dual Challenges: PTSD and TBI

The signature wounds of returning Iraq and Afghanistan war veterans are represented by the dual conditions of posttraumatic stress disorder (PTSD) and traumatic brain injury (TBI).¹⁸ Anger and aggression can be correlates of both conditions. Mild

traumatic brain injury, as related to multiple exposures to direct IED explosions (where the individual or vehicle is hit by the explosive device) or indirect hits (where the explosion occurs nearby, though the individual or vehicle is not directly affected), may result in cumulative brain trauma.¹⁹ There is a relatively high rate of mild traumatic brain injury among returning Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) veterans. Iverson¹⁹ reported an estimated 11.2 percent to 22.8 percent rate of service members who sustained a deployment-related mild traumatic brain injury for the period after the attacks in September 2001. Iverson further noted that the number of military TBIs increased between the years of 2006 to 2008, though the reason for this was not clear and may simply reflect better screening of returning troops for this condition. It may also reflect increased exposure of troops deployed to Iraq and Afghanistan to blast injuries as a result of enemy combatant use of IEDs. In combat settings concussions occur through a variety of means: bullet fragments, attacks with weapons such as rocket-propelled grenades, bomb blasts, land mines, and vehicle crashes. In the Iraq and Afghanistan wars, bomb blast exposures typically occurred through IEDs, although there are also discharges of bombs employed by the military to destroy enemy areas.²⁰ Recent meta-analytic studies suggest that, in most cases, the course of mild TBI from a single event results in symptom remission, although a small percentage of individuals report chronic cognitive and emotional complaints.²¹ Of note, the debate continues about definitions of combat-related conditions, such as postconcussive syndrome versus mild traumatic brain injury that some have argued lead to misattribution of symptoms.²² In addition, combat-based TBI is complicated by the overlapping impact of PTSD and pain and the effect of other physical injuries sustained. Furthermore, multiple exposures to events that cause traumatic injury without prolonged loss of consciousness can occur over a tour (or multiple tours) of deployment (typically one year for Army troops).¹⁹

Another facet of Iraq and Afghanistan war zone TBI is that it can involve multiple exposures to blast waves from IED and vehicle-borne explosive device (VBED) explosions.¹⁹ Blast-related injuries to the brain are unique and complex. Ziejewski *et al.*²⁰ described blast injuries as occurring as a result of blast wave-induced changes in atmospheric pressure.

Brain injury can result from blast waves going through the brain. There can be additional injuries to the head from projectiles unleashed from a blast. In addition, the force of the blast can cause acceleration-deceleration injuries from the brain's moving and hitting the bony parts of the skull. Although advances in protective devices, including headwear, have resulted in a decrease in the number of soldiers killed in action, there is a corresponding increase in head wounds and serious disabilities among these surviving veterans. Included among the residual effects of blast TBI are concentration problems and other cognitive deficits. Classic symptoms of TBI such as sleep disturbance, headache, vertigo, and anxiety can follow even mild TBI (defined as confusion or loss of consciousness lasting less than 30 minutes).²¹ Emotional deregulation, temper dyscontrol, and anger outbursts can accompany damage to areas of the frontal and temporal lobes as a consequence of blast- or bomb-related TBI.^{19,23} Nonetheless, a recent study of 676 Iraq and Afghanistan veterans did not find a direct effect between deployment traumatic brain injury and reports of problems with anger and violence.²⁴ The authors noted instead a considerable overlap between the symptoms of PTSD and TBI, as well as possible alcohol misuse, which raised the question of an interactive or additive effect of these conditions (PTSD, alcohol abuse, and TBI) on lowered control of anger and aggression.

In early studies of service members returning from Iraq and Afghanistan, the rates of PTSD have been estimated at 19 percent and the rates of TBI at 20 percent, with approximately 31 percent of returning troops estimated to experience mental health problems or TBI.³ Other studies have also linked new-onset combat exposure with psychological distress²⁵ and violent combat experiences to an increased likelihood of postdeployment risky behavior.²⁶ Moreover, Elbogen *et al.*,²⁴ in their study of Iraq and Afghanistan war veterans found that those with poorly controlled hyperarousal PTSD symptoms also had greater self-reported difficulty in controlling anger, aggressive impulses, and violent impulses. In a recent monograph, Daniel²⁷ described the rates of PTSD symptoms, combat exposure, and violence in a sample of 440 Iraq and Afghanistan veterans who were inmates at the United States Disciplinary Barracks, Fort Leavenworth, Kansas. One hundred ninety-nine of the inmates surveyed described some symptoms of PTSD; of those, 48 percent reported having

Table 1 WRAIR “BATTLEMIND” from Combat to Community^{29,30}

	Military vs. Community	Service Member (SM) in Combat	SM at Home
B	Buddies (cohesion) vs. withdrawal	No one understands SM’s experience except buddies who were there; life depended on trust in unit.	SM may prefer to be with battle buddies rather than spouse, family, or friends; may assume that only those who were with SM in combat understand or are interested.
A	Accountability vs. control	Maintaining control of weapon and gear is necessary for survival; all personal items are important to SM.	SM may become angry when someone moves or messes with SM’s stuff; may think that nobody except the SM cares about doing things right.
T	Targeted vs. inappropriate aggression	Split-second decisions that are lethal in highly ambiguous environments are necessary. Kill or be killed. Anger keeps SM pumped up, alert, awake, and alive.	SM may have hostility toward others; may display inappropriate anger or snap at buddies or NCOs; may overreact to minor insults.
T	Tactical awareness vs. hypervigilance	Survival depends on being aware of surroundings at all times and reacting immediately to sudden changes, such as sniper fire or mortar attacks.	SM may feel keyed up or anxious in large groups or situations where feels confined; may feel easily startled, especially when SM hears loud noises; may have difficulty sleeping or have nightmares.
L	Lethally armed vs. locked and loaded at home	Carrying a weapon at all times is mandatory and a matter of life or death	SM may feel a need to have weapons, in home and car at all times, believing that SM and loved ones are not safe without them
E	Emotional control vs. anger/detachment	Controlling emotions during combat is critical for mission success and quickly becomes second nature	Failing to display emotions around family and friends will hurt relationships; may be seen as detached and uncaring.
M	Mission operational security vs. secretiveness	SM talks about the mission only with those who need to know; can only talk about combat experiences with unit members	May avoid sharing any of deployment experiences with family, spouse and friends.
I	Individual responsibility vs. guilt	SM’s responsibility is to survive and do his best to keep buddies alive.	SM may feel has failed buddies if they were killed or seriously injured; may be bothered by memories of those wounded or killed.
N	Non-defensive (combat) vs. aggressive driving	Driving unpredictably, fast, using rapid direction changes and keeping other vehicles at a distance is designed to avoid IEDs and VBEDs.	Aggressive driving and straddling the middle line leads to speeding tickets, accidents, and fatalities.
D	Discipline and ordering vs. conflict	Survival depends on discipline and obeying orders.	Inflexible interactions (ordering and demanding behavior) with spouse, children, and friends often leads to conflict.

been under fire in combat and 14 percent reported being wounded. The average age of first offense was 24. Twenty-three had an established diagnosis of PTSD in their mental health records; of those, 20 had been deployed to a combat zone, 17 had received hostile fire, 10 had been wounded in action, 13 were deployed once, 5 were deployed twice, and 2 were deployed three times. It was noted that 92 percent of the inmates with an established PTSD diagnosis by record had committed a violent offense (of the remaining inmates, one was a threat to kill, and the other committed a drug offense). While these data do not establish a causal link of combat exposure to postdeployment violence, the findings strongly suggest a relationship between high rates of reports of PTSD symptoms, exposure to hostile fire in a combat zone, and subsequent criminal behavior, primarily of a violent nature.

Combat Battlemind as Maladaptive in the Civilian Environment

There are qualitative elements specific to the Iraq and Afghanistan wars, in contrast to the Vietnam war (such as multiple deployments, differing terrain and survival of injuries that were lethal in prior wars) that may be of value in understanding the context of the development of PTSD or combat stress among Iraq and Afghanistan veterans returning home. Battlemind training (Walter Reed Army Institute Land Combat Study Team)²⁸ represents a methodology used by the military to identify the soldier’s mindset and skills toward survival in the combat zone and may influence ability to adjust to civilian life. These descriptions are summarized in Table 1. The military survival mindset is adaptive to the war zone, but maladaptive in the civilian arena. Strategies such as aggressive and erratic driving, used by combat-zone

personnel toward avoiding IEDS and VBEDs, are clearly maladaptive on the home front. Additional examples include combat zone high alert-high adrenaline states characterized by anger and hypervigilance and coupled with quick reactions to perceived threats, sometimes lethal, to the goal of staying alive and protecting fellow personnel. Clearly, these reactions in civilian life can be highly problematic, as they frequently represent a misjudgment of the situation, leading to interpersonal anger, aggression, and, at times, lethal violence.

Moreover, reliance on a weapon for safety and carrying one at all times is a combat mandate. For some combat veterans returning home, this mindset carries over with the belief that having a weapon on one's person at all times is necessary for safety. For a very few, a survival mindset may become the maladaptive mechanism that fosters hypervigilance and paranoia and may potentiate violence or homicide.

In sum, although most combat veterans appear to develop effective coping responses to the stressors experienced in the military and upon re-entry to civilian life, research and media reports suggest that a significant proportion of service members returning from current wars either as a result of mental health problems or as a result of their military training or combat experience are at high risk for contact with the criminal justice system. While the literature presented here highlights domains that are relevant to forensic evaluation of returning veterans who become involved with the justice system, further studies, including DOJ surveys that specifically reflect OIF/OEF veterans, are needed to examine the precise degree and nature of the relationships between military training and experience and criminal behavior.

Guide for Review of the Link Between PTSD/TBI Combat Exposure and Civilian Violence

The Postdeployment Criminal Violence Rating Guide represents a methodology for organizing and analyzing data relevant to forensic case formulation. It is a conceptual template that addresses qualitative factors as they relate to the potential impact of combat-related injuries and postdeployment violence (as depicted in Table 2). We used research on warzone trauma exposure and descriptions of military training to propose a guide for use in forensic evaluation settings. In addition, we propose a guide informed by

the diathesis-stress model to encompass military trauma and training that can result in symptoms, cognitive dysfunctions and conditioning, and impulsive or learned behavioral responses. The guide suggests important data elements to gather and a methodology for descriptive analysis of the findings before examining the connection between military experience and criminal behavior.

For the forensic clinician addressing combat exposure and postdeployment violence as it affects *mens rea*, this template provides for a focused evaluation of war zone-related PTSD and TBI symptoms. Moreover, the template provides a method for describing the rationale of how combat exposure may lead to impaired emotionality and cognition and may offer a basis for legal defenses (e.g., insanity, competency, diminished actuality/capacity, and sentence mitigation). As a cautionary note, this process does not establish a link legally between the offense and military training, PTSD, or combat exposure; rather, it represents a clinical guide to certain potentially relevant aspects of combat exposure. Of note, the guide assumes that the clinician has verification of the Iraq and Afghanistan veteran military service (through DD214, i.e., the official military discharge document and other military records), and it is cautioned that the assessment cannot be based solely on self-reported combat or combat zone exposure, a lesson learned by forensic evaluators of veterans from earlier eras.^{15,16} We offer a fictional case example as a method of demonstrating how this guide may be used in a forensic context.

Use of the Clinical Guide With a Fictional Case Example

This case was created to reflect the demographics of those who have served in Iraq or Afghanistan, but does not represent the cumulative history of actual cases or an individual case; however, it does reflect the types of clinical conditions and postdeployment social situations encountered by returning veterans.

Vignette

Veteran A was a 33-year-old Iraq War veteran, an Army National Guardsman under orders for active duty in the Army. He was deployed to Baghdad, Iraq, in the combat arms (infantry), and his assigned duty was urban patrols outside the base. He was a platoon sergeant. During his first tour, his vehicle encoun-

Table 2 Clinical Guide for Review of PTSD/TBI Combat Exposure and Civilian Violence

(Each item is marked present or absent by the evaluator)

Combat Exposure: Severity of Experience

- Mortar and rocket-propelled grenade attacks
- Gunfire
- Indirect IED/VBED blast hits
- IED/VBED direct hits
- Witnessing injury or death of military personnel and near misses
- Witnessing civilian injury or death
- Combat duties: search and listen missions in field; medic duties
- Aircraft duty over warzone/crashes due to enemy fire or mechanical failure in enemy territory

War-zone deployment exposure: severity of trauma

- Mortar/gunfire while on base
- Witnessing of dead bodies or morgue duty on base
- Treating battlefield injuries on base (witnessing the severely injured)
- Knowledge of death of fellow military personnel
- Warnings of incoming enemy mortar attacks

Battlemind Conditioning in Combat Zone

- High alert-high adrenaline combat duty (night time raids, home raids/village raids for intelligence gathering or capture of enemy insurgents)
- Several documented instances of instant actions to perceived threat or threat (e.g., discharging weapon)
- Erratic driving to avoid IEDs
- Encounters with hostile civilians in combat zone
- Deployment to high-density urban areas where there are enemy insurgents
- Travel on routes known to be highly mined with IEDs
- Security duty at entry and exit points of base and base perimeter
- Flight crew hazardous flights over hostile territory
- Security duty at entry and exit points of base

Postdeployment erratic behavior

- Reckless driving
- Explosive temper loss with family and friends
- Severe isolation, detachment, refusal to communicate with family and friends
- Heavy drinking; drug use
- Physical confrontations with others
- Irrational suspicion of others
- Severe rage leading to destruction of property (e.g. punching walls, breaking furniture)
- Physical violence towards family and spouse
- Self-harm (suicide attempts)
- Carries weapon at all times for safety
- Frustration and inability to cope with stress

PTSD symptoms with potential links to aggression

- Hypervigilance
- Hyperarousal
- Severe insomnia impairing judgment
- Irritability
- Survivor guilt and remorse-related anxiety and depression
- Dissociative flashbacks

TBI symptoms with potential links to aggression

- Sleep disturbance and headache leading to easy frustration/loss of temper
- Impairments in judgment (misinterpretation of others motives)
- Mood lability
- Impulsivity (spending sprees, terminating relationships)
- Angry outbursts that are out of proportion to precipitant

tered an improvised explosive device resulting in destruction of the vehicle. He sustained a brief loss of consciousness and subsequently experienced severe headaches, tinnitus, and concentration problems.

However, he remained on duty and continued his tour. In the first tour, he and his platoon experienced gunfire directed at them by enemy insurgents, traveled on high-density urban routes known to be mined with explo-

sives, and were involved in nighttime raids on residences believed to harbor enemy insurgents.

He returned home in January 2006 and experienced difficulty in resuming his civilian job as a policeman. Specifically, he incurred disciplinary reports for explosive behavior toward his supervisors, was cited for pulling his weapon out on a routine traffic stop, and had an allegation made against him of use of excessive force during an arrest. These behaviors contrasted with his preduty record, which was free of any disciplinary notations. Veteran A was placed on administrative leave and instructed to undergo a psychological fitness-for-duty examination. However, in 2007, before the examination, he was redeployed to Baghdad. During that deployment, he served on convoys and experienced active fire and IED encounters in which vehicles ahead of him were bombed. In addition, during a sniper attack he sustained shrapnel wounds while on foot patrol in an urban area and witnessed at close range a fellow soldier killed by enemy gunfire.

Upon returning home, Veteran A again attempted to return to his job in the police force. He underwent the psychological fitness-for-duty evaluation and was found unfit due to combat-related PTSD. Consequently, he was placed on light desk duty. He contested the finding. He refused to participate in psychiatric care at the VA, as he believed that to do so would lead to termination of his position as a police officer. He argued frequently with his wife. She reported that he pushed her against the wall in one incident and punched a wall in front of the children in a separate incident; now, his family felt fearful of him. This behavior led to a separation, and his wife filed for divorce. Veteran A had to move out of the home he owned with his wife and took up residence in a small apartment nearby. Two months later, he learned that his wife was involved with another man who sometimes stayed overnight in their home. Veteran A became enraged that she was exposing their two young children to such behavior. Owing to the veteran's lack of temper control, his wife was able to have a family court judge order only supervised visits with his children.

Veteran A was ordered to submit to a psychological evaluation by the court. That evaluation documented multiple symptoms of PTSD, including hypervigilance, insomnia, and hyperarousal. He admitted that he had not slept over two hours in succession since his deployments to Iraq. The court-appointed evaluator concluded that the veteran had

PTSD, and his symptoms of anger and aggression warranted supervised family visits. Veteran A was therefore ordered to participate in treatment before unsupervised visits would be permitted. He sought out care at a local VA but failed to keep his psychiatric appointment. He was seen by the VA's polytrauma clinic for constant headaches and insomnia and was prescribed tramadol for the headache and trazodone for sleep. He was diagnosed with mild traumatic brain injury in addition to PTSD.

Veteran A began to drink heavily and miss work. He became suspicious of the motivations of his supervisors. His angry outbursts continued. Ultimately, these actions lead the department to place him on paid administrative leave pending resolution of the appeal of the finding of lack of fitness for duty. While on administrative leave, he stayed in his bedroom, drank heavily, and spent his time playing video games. He refused to return phone calls to family and friends. He began to engage in surveillance of his wife's home to document visits by the boyfriend and thus demonstrate that she was an unfit mother. The veteran had several weapons at home. He became enraged after his wife refused visits with his children, and one night came back to her home to film the boyfriend's visit there. While Veteran A was hiding near the home, the boyfriend came out and ordered him to leave. Veteran A became enraged when the boyfriend pushed him, and he pulled out his weapon and fatally injured the man. He is now facing first-degree murder charges. The forensic psychiatric/psychological assessment of this veteran could be related to *mens rea* and mitigation and possible sentencing decisions.

Combat Exposure: Severity of Experience

Table 2 presents eight elements related to severity of trauma occurring during combat exposure. Veteran A's history is notable for five of these elements: experience of mortar attacks, receiving enemy gunfire, experiencing both IED blasts and direct IED hits, and witnessing the injury of a fellow soldier, all occurring in the combat zone. His combat exposure can be described as severe.

War Zone Deployment Exposure: Severity of Trauma

Table 2 presents war zone deployment factors. As Veteran A's two deployments were that of direct combat duty, this category of addressing base deployment war zone exposure would not be rated. This category is useful for those individuals whose tour of

duty occurred without deployment outside a war zone base. That is, the combat exposure data would serve as the basis for the description of the severity of trauma exposure, encompassed by knowledge of death of fellow military personnel and experience of enemy mortar fire attacks. The combat data describe Veteran A's war zone trauma exposure as severe.

Battlemind Conditioning in the Combat Zone

Veteran A had six of the nine elements presented in Table 2: high-alert, high adrenaline combat duty (night raids and urban foot patrols that required hypervigilance); several instances of initiating actions to threats or perceived threats (his duty involved documented instances of actions in which he had to discharge his weapon or was fired on); erratic driving to avoid IEDs (while on patrols); encounters with hostile civilians in the combat zone (during night raids and urban patrols); deployment to a high-density urban area known to have enemy insurgents; and travel on IED-mined routes (witnessed and experienced bomb blasts and gunfire). He did not serve on-base duty such as security or flight duty (travel on IED-mined routes). These experiences can be reasonably hypothesized to promote a battlemind attitude (being on high alert to danger), which remains robust on return to civilian life.

Postdeployment Behavior

Veteran A's postdeployment behavior is notable for 8 of the 11 postdeployment erratic behaviors presented in Table 2: explosive temper loss, severe isolation, heavy drinking, physical confrontations with others, irrational suspicion of others, severe rage and physical violence toward his wife, carrying a weapon at all times for safety, and frustration and inability to cope with stress. At work, Veteran A lost his temper and was suspicious of the motives of coworkers, which impaired his ability to perform his duties as a police officer. These behaviors were documented as occurring before the homicide and support a pattern of combat-based injuries as contributing to his emotional and behavioral deterioration.

PTSD Symptoms With Potential Links to Aggression

Veteran A had four of the six PTSD symptoms that are potential links to aggression (Table 2): hypervigilance, hyperarousal, severe insomnia, and irritability. His psychological fitness-for-duty report, collateral data from his work setting, and a family court evaluation are additional corroborative data

that demonstrated the intensity of PTSD symptoms in his civilian behavior. Dissociative flashbacks, while not disclosed, are suspected, given his history of several instances of initiating reactions to threats or perceived threats that were suggestive of an altered mental state.

TBI Symptoms With Potential Links to Aggression

Veteran A had three of five TBI symptoms with potential links to aggression (Table 2): headache and insomnia leading to loss of temper, impaired judgment leading to desk duty at work, and anger out of proportion to events. These symptoms occurred after a documented direct IED hit, supporting an opinion that they were TBI associated. The overlapping symptoms of TBI and PTSD are those of mood lability and anger. In this case, the VA polytrauma clinic evaluations formed a confirmatory basis for the presence of TBI.

Summary of Ratings on Clinical Guide and Interpretation

The elements in the guide could be utilized to formulate the rationale that Veteran A's combat injuries derailed his mental state to a degree that his thinking and judgment were irrational and diminished his ability to form the requisite mental state as related to specific-intent offenses (e.g., first- or second-degree murder). Veteran A is rated as having experienced severe combat exposure from two tours in Iraq with multiple symptoms of PTSD and TBI that have led to postdeployment erratic behavior and aggression. The narrative of his postdeployment civilian adjustment was notable for deterioration in functioning that was evident on return from his first tour in Iraq and that devolved further after return from his second combat tour. In his civilian life after return from his first tour, Veteran A demonstrated the continuation of the battlefield mindset in his role as a police officer, pulling his weapon on a routine traffic stop, and being accused of use of excessive force during an arrest. Such behavior speaks to the presence of hair-trigger reactivity to perceived danger that results in actions to protect himself (such as pulling out his weapon, adaptive in the combat zone but maladaptive in the civilian world) and the continuation of a battlemind temperament in the civilian zone. The categories of combat and war zone exposure reflect severe trauma, clear battlemind conditions leading to erratic behavior after return from deployment. The collateral civilian data support that

the veteran had multiple symptoms of PTSD and TBI, hypervigilance, misinterpretations of others' motives, and out-of-proportion anger that derailed his marital relationship and his occupational functioning as a police officer. His judgment was impaired by PTSD-related hyperarousal and sleep disturbance and TBI symptoms of poor anger control. These untreated symptoms led to increased stress on Veteran A through the loss of employment, his marital relationship, and family contact and then to the maladaptive actions of severe isolation and drinking. The PTSD and TBI symptoms had a cascading negative effect on judgment as social stressors increased. In this case, a credible argument can be made that both combat-based PTSD and TBI led to a derailed mental state in Veteran A before the commission of the homicide.

Conclusions

Combat-linked defenses are vulnerable to challenges (i.e., statistically, an extremely small minority of combat veterans commit murders or serious violence), despite exposure to war zone stressors and resultant combat stress symptoms. Further, combat exposure may or may not be explanatory or related to postdeployment violence; therefore, care should be taken by the forensic clinician not to conclude that there is a link merely on the basis of combat zone experience. Moreover, the task is complicated by pre-deployment disorders, such as antisocial personality or other conditions; individual differences in reactions to combat exposure; the overlapping effects of TBI and PTSD; and the low base rate of civilian violence as a consequence of combat exposure. Although procuring military documents verifying combat exposure is essential and can reduce this risk, malingered symptoms and either exaggeration or outright fabrication of war zone exposure create challenges to forming forensic opinions.

Among those veterans who commit such offenses, combat-related injuries could arguably produce derailed mental states that affect the capacity to form criminal intent. The diathesis-stress model describes how a veteran's intrinsic resilience (diathesis) may deteriorate due to combat exposure and injury (stress) when confronted with cumulative stressors in the civilian arena, thereby leading to decompensation of inner controls and subsequent violence. The nexus between the Iraq and Afghanistan combat injuries of TBI and PTSD and civilian violence on

return from deployment requires an understanding of the unique aspects of these wars as differentiated from earlier conflicts. We suggest that the clinical forensic conceptualization of the association between Iraq and Afghanistan combat-related mental health and brain injury could be aided by a review of the qualitative factors listed in our template. This guide offers a systematic approach to organizing data to facilitate the analysis of impact of PTSD and TBI symptoms as they affect *mens rea*. The case example illustrates the application of a methodology that may be of value to the forensic clinician assessing an Iraq and Afghanistan veteran whose violence after return from deployment has incurred criminal charges.

The practical guide we have offered provides a first step in addressing whether combat duty or war zone deployment-related exposure and clinical conditions such as TBI and PTSD can be linked to aggression on return from deployment. Prospective ratings of Iraq and Afghanistan combat veterans on the guide may be one form of empirical study that moves toward quantification of the process through the examination of effect sizes of the specific items and the overall rating of the outcome of criminal violence. In addition, the guide may be modified further, as data specific to Iraq and Afghanistan veteran violence and criminality become available.

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