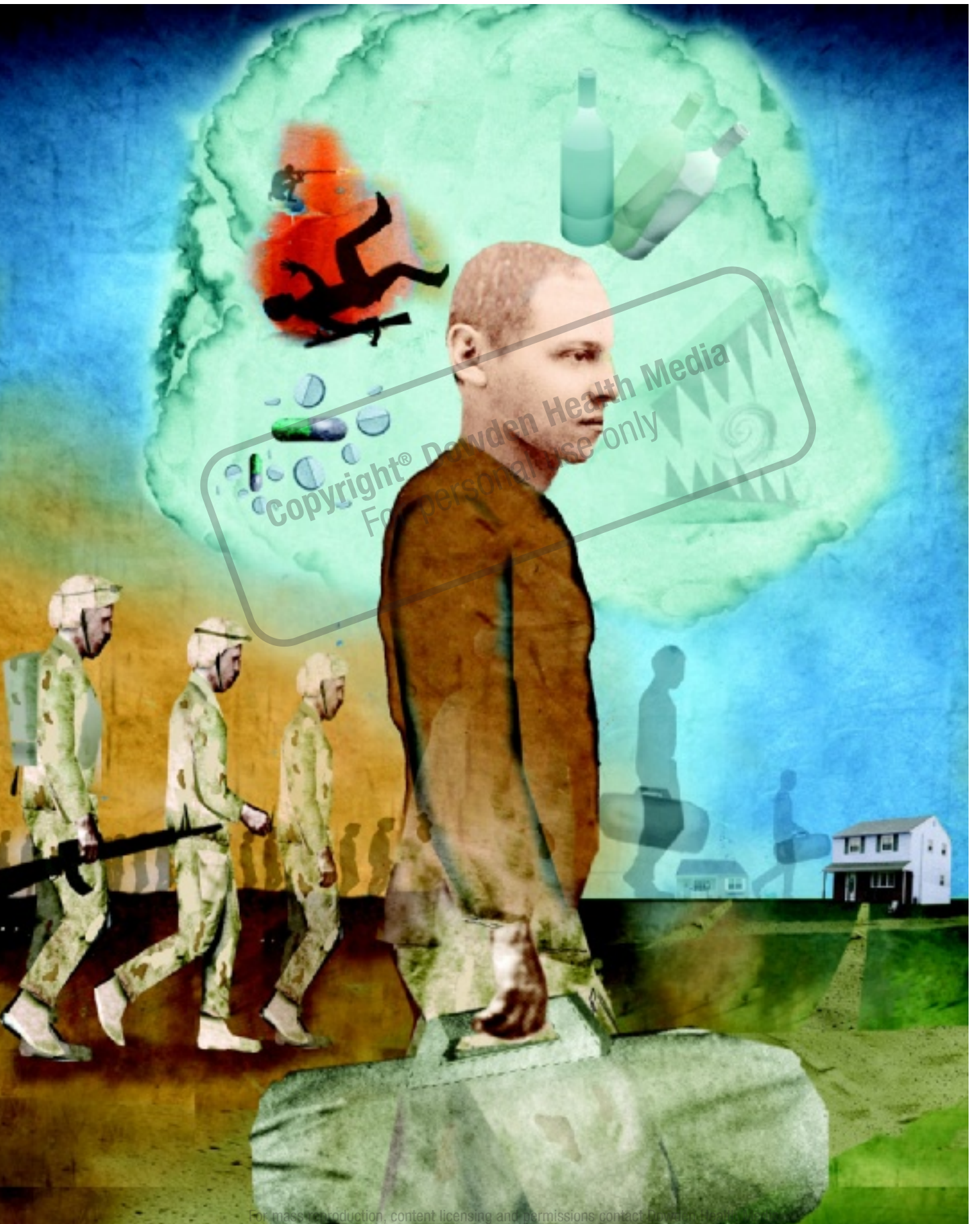

Current PSYCHIATRY

U.S. TROOPS RETURNING HOME

Are you prepared?

Timothy W. Lineberry, MD
Instructor

J. Michael Bostwick, MD
Associate professor

James R. Rundell, MD
Professor

Department of psychiatry
Mayo Clinic, Rochester, MN

Their psychiatric problems go beyond posttraumatic stress because of unique combat in Iraq and Afghanistan

National Guard and Army Reserve troops constitute an estimated 30% to 40% of the 1 million-plus U.S. military personnel deployed in Iraq and Afghanistan.[1-3] Many of these civilian soldiers—once considered "weekend warriors"—are serving a first combat tour, returning home, and being redeployed for additional tours of duty.

Because of these unprecedented deployment policies, civilian psychiatrists will likely play a greater role in treating combat-related mental health problems than in any previous U.S. war. You may need to provide initial and long-term psychiatric care for reservists and Guard members returning to your community during 2006 and beyond.

To help you prepare, we discuss the combat situations these soldiers are experiencing, types of psychiatric problems they are reporting in anonymous surveys, and their attitudes about seeking psychiatric care. We also offer practical resources on combat-related posttraumatic stress disorder (PTSD) for nonmilitary or Veterans Administration clinicians.

continued

Table 1

Mental health problems reported by troops returning from combat in Iraq*

Problem	Number among 193,000 U.S. soldiers
Nightmares or unwanted war recollections	20,000
Might "hurt or lose control" with someone else	3,700
Suicidal thoughts/feeling better off dead	1,700

* 28% of returnees reported mental health problems in post-deployment surveys between January and August 2005.

Source: Army Center for Health Promotion and Preventive Medicine, reference 5.

A SOLDIER'S STORY: 'HE'S ALWAYS JUMPY'

Mr. L, age 39, is supervisor for a local construction company and a sergeant first class with 18 years of Army Reserve service who returned from Iraq 7 months ago. He tells you, "My wife made me come see you—I didn't want to."

Though he does not think he needs a psychiatrist, his irritability and poor sleep worry his wife. "He isn't the same anymore," she says. "He's always jumpy."

REPORTED PSYCHIATRIC PROBLEMS

Stress-related symptoms. Within 4 months of returning home from Iraq or Afghanistan, 3 in 10 soldiers have developed "stress-related mental health problems" such as anxiety, depression, nightmares, anger, and concentration difficulties, reports Army Surgeon General Lt. Gen. Kevin Kiley.[4] An unknown smaller percentage were reportedly diagnosed with PTSD.

Strained marriages, suicidal thoughts/feelings, nightmares or flashbacks, and fear of losing control or injuring someone else were among problems soldiers acknowledged during post-deployment health assessments between January and August 2005. In these surveys, 28% of 193,000 returnees endorsed mental health problems, according to the Army Center for Health Promotion and Preventive Medicine (*Table 1*).[5]

Low estimates? In 1997, the U.S. military began universal medical screening of troops before and after military deployments.[6] This important step allows the military to address baseline health needs of returning soldiers and measure effects from combat. There are no comparable sources of data from previous wars.

Unfortunately, this new information may underestimate the number of returnees with psychiatric problems and the severity of those problems. In an anonymous survey of returning Army and Marine soldiers, Hoge et al[7] found that those who met criteria for psychiatric diagnoses were less likely to seek assistance because of perceived stigma and concerns about their military careers than those without a psychiatric diagnosis (*Table 2*).

Female personnel. Women are overrepresented by a factor of two among personnel evacuated primarily for psychiatric reasons from combat phases the military calls Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) (unpublished data, Dr. Rundell).[8] Women comprise 10% of returning OIF and OEF veterans and 19% of psychiatric evacuees.

Gender per se may not be the most important variable; age, number of years in the military, type of military unit, and ethnic group are also risk factors for developing a war-related psychiatric disorder. Further studies of OIF- and OEF-related psychiatric disorders are needed to determine whether female veterans' clinical needs differ in important ways from those of male veterans.

PTSD IN COMBAT VETERANS

Every war has seen new names and descriptions for combinations of psychological and somatic

Table 2

Perceived barriers to seeking mental health services cited by U.S. soldiers after combat duty in Iraq and Afghanistan*

Perceived barrier	Met screening criteria for a mental disorder? Yes (N = 731)	No (N = 5,422)
I would be seen as weak	65%	31%
My unit leadership might treat me differently	63%	33%
Members of my unit might have less confidence in me	59%	31%
I would have difficulty getting time off work for treatment	55%	22%
My leaders would blame me for the problem	51%	20%
It would harm my career	50%	24%
It is difficult to schedule an appointment	45%	17%
It would be too embarrassing	41%	18%
I don't trust mental health professionals	38%	17%
Mental health care costs too much money	25%	10%
Mental health care doesn't work	25%	9%
I don't know where to get help	22%	6%
I don't have adequate transportation	18%	6%

* Anonymous survey. Those who met criteria for psychiatric diagnoses were less likely to seek assistance because of perceived stigma and concerns about their military careers than those without a psychiatric diagnosis.

Source: Adapted and reprinted with permission from Hoge CW, Castro CA, Messer SC, et al. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *N Engl J Med* 2004;351:13-22.

symptoms resulting from war experiences (*Box, page 16*).[9,11] Compared with persons with PTSD from other types of trauma, combat veterans appear to have the highest rate of delayed-onset PTSD and are less responsive to treatment.[9]

Initial PTSD rates for soldiers returning from Iraq ranged from 12.2% (Marines) to 12.9% (Army), using diagnostic criteria requiring functional impairment.[7] These rates are 2.5 times the rate observed before combat (5%) and 3 to 4 times that of the general population (3.6%), using the same methodology.[10]

If 12.5% of 1 million combat-exposed service members develop PTSD, 125,000 service members may be affected. This rough estimate—7 times the number of personnel officially reported as "wounded"—does not take into account the wide variability of combat exposure among deployed troops or the effects of combat stress interventions (which might decrease the rate). Nor does it consider the impact of multiple rotations and possible decreased combat simulation training in reserve troops (which might increase the rate).

Resiliency and PTSD. Resiliency among service

Box

New wars, new names for psychiatric combat reactions

During the Civil War, soldiers with pathologic reactions to combat were described as having "irritable heart" or "soldier's heart."[9] Since then, every war has seen new names and descriptions for combinations of psychological and somatic symptoms resulting from war experiences.

Affected troops in World War I were said to have "shell shock," whereas those in World War II and the Korean War had "combat fatigue." Those fighting in the jungles of Vietnam had posttraumatic stress disorder (PTSD).

Along with evolving psychiatric nomenclature and diagnostic schema, each war—including those in Iraq and Afghanistan—has had unique symptom constellations.[11] These differences relate to the contemporary state of scientific and medical knowledge, sociocultural factors, and popular press concerns. Some differences stem from actual or perceived weapon effects (such as chemical warfare or depleted uranium).

For example, World War I physicians at first considered "shell shock" to result from traumatic effects of high-explosive shells on the brain. This explanation proved inadequate when soldiers without direct concussive exposure expressed trauma-related symptoms.[12]

members in combat is the norm, and most will not develop PTSD. Military efforts at increasing resilience and performance include intense training with realistic combat simulation and education. A selected sample of experienced elite soldiers has been shown to have lower cortisol levels in response to simulated combat stress than younger soldiers with less training.[11]

To develop, PTSD requires synergy between a severe stressor and a neurobiologic response. Because of genetic endowment or experience, not all persons are susceptible to the high levels of stress and associated hypothalamus-pituitary-adrenal axis activation required for the disorder to occur. Specific individual differences in coping, trauma history, and biology may predispose some individuals to PTSD.[11]

MR. L'S STORY: DETACHED AND IRRITABLE

As a combat infantryman, Mr. L was in seven fire fights, in which three of his buddies died. In responding to your questions, he admits feeling disconnected from his children and from his old friends who did not go to Iraq. He describes frequent arguments with his wife, though they had rarely argued previously. He denies psychiatric problems before his 12-month rotation in Iraq.

Being wounded in combat, surviving multiple life-threatening events, and experiencing combat of greater intensity and duration all increase the risk of developing PTSD. Mr. L's multiple firefights, loss of three friends, and other combat experiences place him at high risk for developing PTSD.

Typical combat experiences in Iraq and Afghanistan reported by Army and Marine troops are outlined in *Table 3, page 19*.[7] Familiarizing yourself with these experiences can help you interview combat-exposed patients after you develop trust and rapport with them.

WORKUP OF COMBAT VETERANS

Military psychiatrists provide support and treatment during and immediately after combat, but they do not associate acute reactions with specific psychiatric diagnoses to avoid "pathologizing" brief reactions to combat. To provide appropriate treatment for returning troops, however, you will need to characterize clinically significant psychopathology by using DSM IV-TR criteria for acute stress disorder and PTSD.[12]

We recommend that you manage a returning service member according to usual clinical practice. This includes a thorough history and appropriate

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Table 3

Combat experiences reported by U.S. troops after deployment in Iraq or Afghanistan

	Army groups		Marine group
Experience	Afghanistan	Iraq	
Being attacked or ambushed	58%	89%	95%
Receiving incoming artillery, rocket or mortar fire	84%	86%	92%
Being shot at or receiving small-arms fire	66%	93%	97%
Shooting or directing fire at the enemy	27%	77%	87%
Being responsible for death of an enemy combatant	12%	48%	65%
Being responsible for death of a noncombatant	1%	14%	28%
Seeing dead bodies or human remains	39%	95%	94%
Seeing dead or seriously injured Americans	30%	65%	75%
Knowing someone seriously injured or killed	43%	86%	87%
Participating in demining operations	16%	38%	34%
Seeing ill or injured women or children whom you were unable to help	46%	69%	83%
Being wounded or injured	5%	14%	9%
Being shot or hit, but protective gear saved you	*	8%	10%
Having a buddy who was near you shot or hit	*	22%	26%
Clearing or searching homes or buildings	57%	80%	86%
Engaging in hand-to-hand combat	3%	22%	9%
Saved the life of a soldier or civilian	6%	21%	19%

* Question not included in this survey

Source: Adapted and reprinted with permission from Hoge CW, Castro CA, Messer SC, et al. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *N Engl J Med* 2004; 351:13-22.

medical and laboratory workup. Because soldiers commonly minimize their symptoms and concerns —particularly if they fear full disclosure could jeopardize their military careers—consider including collateral history from the patient's family and friends in your assessment.

Differential diagnosis of mental disorders in combat troops is broad. You will need to obtain a thorough substance abuse history, with particular attention to use of alcohol to self-medicate symptoms. It will be important to assess safety issues, including potential for suicide, homicide, and domestic violence.

Many soldiers report difficulties with re-enter-

ing family life. Marital and sexual problems may develop because of role changes that occurred during a long separation. Pre-existing marital problems may be exacerbated, and both military members and spouses may express concerns about infidelity. Separation and divorce rates may be high.

MR. L'S STORY: ALCOHOL 'HELPS ME SLEEP'

When you ask Mr. L about his use of alcohol, he notes that he was cited for driving while intoxicated at age 28. "I used to have a problem with drinking, but after my ticket I didn't drink 'til I came back from Iraq," he says. "Now it's the only thing that calms me down and helps me sleep."

Comorbid diagnoses associated with PTSD are the rule. Mr. L's drinking to self-medicate his PTSD symptoms puts him at risk of redeveloping alcohol problems. Use current best practices for managing depression, anxiety disorders, and substance abuse (if present) to guide treatment.

Suicidal behavior has also been strongly associated with PTSD.[13] Thus, address Mr. L's access to firearms, and include suicide assessment and regular followup in any treatment plan.

Bottom Line

Military personnel returning from Iraq and Afghanistan may need assessment, coordination of care, and psychiatric treatment by civilian psychiatrists. War-related trauma can cause PTSD, depression, anxiety disorders, substance abuse, divorce, unemployment, and domestic violence. To help these veterans, become aware of the broad differential diagnosis, treatment options, and available resources.

HEAD INJURIES IN IRAQ

The use of effective body armor has dramatically changed the types of wounds and injuries sustained in combat. Kevlar body armor has decreased the frequency of mortal chest and abdominal wounds, leading to an unprecedented proportion of head and neck wounds, including eye injuries. In the war in Iraq and Afghanistan, 22% of evacuated casualties have injuries to the head, neck, and face.[14]

At the same time, rapid treatment of open and closed head injuries—often fatal in past wars—has improved survival. As a result, the prevalence of traumatic brain injury in veteran populations is believed to be substantially higher now than in previous conflicts.[15]

MR. L'S STORY: 'I FORGET EVERYTHING'

Mr. L reports that after he served 8 months in Iraq, his vehicle was destroyed by a roadside bomb. He lost consciousness and was hospitalized briefly before returning to duty and completing his tour.

"I'm having trouble concentrating at work, and it seems like I forget everything," he says. "My boss has complained about mistakes I make when planning our construction jobs. Could that explosion be causing my problems?"

Mr. L's loss of consciousness associated with a blast injury and his cognitive complaints suggest possible mild traumatic brain injury. Consider neuropsychological testing and brain imaging studies, along with possible referral to appropriate rehabilitation programs if needed.

TREATMENT RESOURCES

The Iraq War Clinician Guide[16] delineates military approaches to prevention, as well as acute intervention and initial treatment after evacuation from a war zone. This guide also:

- outlines rationales for removing affected service members from combat and eventually return-

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ing them to duty or medically retiring them if severe symptoms continue to interfere with ability to function.

• describes the biopsychosocial approach used by the Walter Reed Army Medical Center Psychiatric Consultation Service to address the multifactorial needs of the traumatized amputee.

Other resources. Detailed analyses of treatment options and their efficacy, along with algorithms for treatment, are available online (*see Related resources*). Because practice guidelines might not apply to all situations, it will be important to develop patient-specific treatment plans.

Related resources

- **National Center for PTSD: The War in Iraq. www.ncptsd.va.gov/topics/war.html**
  Comprehensive Web site designated by Congress to provide information for military veterans with PTSD. Clinician's guide available, plus fact sheets for family and patients.
- **National Center for PTSD. Iraq War Clinician Guide (2nd ed). www.ncptsd.va.gov/war/iraq_clinician_guide_v2/iraq_clinician_guide_v2.pdf**
  Detailed guide for treating the soldier in combat. Includes treatment options for PTSD and the veteran with amputation.
- **U.S. Army Center for Health Promotion and Preventive Medicine. Supporting Guidelines. www.pdhealth.mil/clinicians/support.asp**
  Collection of guidelines for PTSD, major depression, and medically unexplained symptoms following combat.
- **Military One Source. www.militaryonesource.com**
  Resource for active duty and reserve soldiers and family members. Portal for support services, policies, and education. Brief confidential counseling support for soldiers and family members.
- **Veterans Administration (VA)/Department of Defense (DOD) Clinical Practice Guideline for Management of PTSD, January 2004. www.oqp.med.va.gov/cpg/PTSD/PTSD_Base.htm**
  Includes list of clinical trials, medication dosing, and evidence basis for treatment with pharmacotherapy and psychotherapy.
- **American Psychiatric Association. Practice Guideline for the Treatment of Patients With Acute Stress Disorder and Posttraumatic Stress Disorder. http://www.psych.org/psych_pract/treatg/pg/PTSD-PG-PartsA-B-C-New.pdf**
  Background and guidelines for managing PTSD, including treatment recommendations, evidence basis, background, and areas for future research.

DISCLOSURE

Drs. Lineberry, Bostwick, and Rundell previously served on active duty in the U.S. Air Force for 12, 5, and 23 years, respectively.

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