CHAPTER 7

Treatment of Combat Reaction Casualties: Providing Humanitarian Care While "Protecting Peace in Southeast Asia"

Looking at the matter from a military point of view alone, one might ask whether it is not desirable to send home all "shell-shock" cases—in whom so much effort results in so few recoveries. Such a decision would be as unfortunate from a military as from a humanitarian standpoint. Its immediate effect would be to increase enormously the prevalence of the war neuroses. In the unending conflict between duty, honor, and discipline, on the one hand, and homesickness, horror, and the urgings of self-preservation on the other, the neurosis—as a way out—is already accessible enough in most men without calling attention to it and enhancing its value by the adoption of such an administrative policy.[1(pp526–527)]

Dr Thomas W Salmon
Director of the Psychiatric Program
American Expeditionary Force, World War I

"Psych techs" interviewing a mock combat exhaustion casualty. In this photograph enlisted social work/psychology technicians simulated a sodium amytal interview of a peer portraying a combat exhaustion casualty, all under the supervision by the division psychiatrist. This was a training exercise conducted sometime between April 1969 and April 1970 at the 1st Infantry Division mental hygiene clinic. Photograph courtesy of Douglas R Bey.

The US Army went to war in Vietnam for the purpose of "supporting freedom and protecting peace in Southeast Asia."[2(p3)] And the Army went with a battle-tested set of principles for the management and treatment of combat stress-generated symptoms and conditions—the forward treatment doctrine.[3] In general this doctrine advocated that Army psychiatrists lead deployed medical personnel in providing field treatments that would quickly restore soldiers disabled by combat stress (ie, rest, replenish, reassure, and return affected soldiers to their units to resume their duty function[4]). It also meant that they should advise commanders regarding the preservation of the psychological fitness of their troops. Whereas this approach was principally designed to support the accomplishment of the military mission, it had long

been noted that alternative treatments, specifically the rapid evacuation of psychiatric casualties from the field, or even the provision of more elaborate and prolonged treatments there, were counterproductive in that they both eliminated capable soldiers from the fighting force and led to higher disability rates. Thus the doctrine was not only in the service of the collective (ie, for military success and the survival of the nation), but it was also intended to serve humanitarian values (ie, treatment for the sake of the individual's welfare).

Chapter 6 presented data suggesting that the incidence of acute combat exhaustion cases in Vietnam was roughly 25% of that seen in the preceding wars, and that the soldiers who required treatment often had less severe symptoms. However, it still appears that the treatment challenges for these conditions were substantial in many circumstances. Yet documentation of the use and effectiveness of the doctrine in Vietnam remains incomplete because the record is mostly anecdotal. This is regrettable because the fighting there evolved into irregular/counterinsurgency warfare—a new circumstance for US forces that, to some degree, foreshadowed similar conflicts to come. Compounding this omission, the Vietnam War provided military medicine with its first set of physicians—especially psychiatrists—routinely trained in the use of neuroleptic (antipsychotic), anxiolytic (antianxiety), and tricyclic (antidepressant) psychotropic medications. These drugs had revolutionized psychiatric care in general and were reported to be widely used in Vietnam for the treatment of combat exhaustion and other combat reaction symptoms; however, there was no systematic study of their use and impact over the course of the war, nor was a protocol established incorporating them in the forward treatment doctrine. Also unaddressed was the impact on the deployed mental health professionals of the mounting ethical objections to the forward treatment doctrine that were based on concerns that it sacrificed humanitarian values for the sake of military and political expediency.[5]

This chapter summarizes the salient features of the combat psychiatry doctrine as it was brought to Vietnam for the prevention, treatment, and management of these conditions. It also reviews the relevant professional literature from the war, selected clinical case examples, and the findings from the Walter Reed Army Institute of Research (WRAIR) survey of Vietnam veteran Army psychiatrists, to fill in the blanks regarding efforts to adapt it to the novel features encountered there, including the availability of the new psychiatric medications. The material presented in this chapter extends the review of the various clinical presentations and evident pathogenic influences for combat stress reactions in Vietnam provided in Chapter 6. Later, Chapter 9 will review the various efforts by Army psychiatrists to respond to the rapidly developing drug abuse problem later in the war—a problem that was not unique to combat-exposed troops but which apparently did jeopardize the maintenance of combat strength and effectiveness. The subject of command consultation, which could prove invaluable in prevention of these as well as other types of psychiatric casualties in the combat zone, will be explored in Chapter 10.

BACKGROUND

From the outset, Army medical and psychiatric leaders in Vietnam had confidence in the utilization of the historically validated doctrine for the care of soldiers with combat stress symptoms. This section will extend the presentation of the doctrine's rationale, which was begun in Chapters 2 through 4, and summarize its management and treatment principles as they were represented in the post-Korean War professional literature and specific Army training documents and technical manuals.

The Pre-Vietnam Rationale for the Traditional Combat Psychiatry Forward Treatment Doctrine

Over the course of the wars leading up to Vietnam, combat psychiatrists empirically established a set of treatment and management principles designed to quickly identify and restore large numbers of psychiatrically disabled combat soldiers, so-called secondary and tertiary prevention, thereby salvaging a vital source of military manpower. Three cardinal publications by senior Army psychiatrists—Glass,[6] Artiss,[7] and Hausman and Rioch[8]—plus Army Technical Manual (TM) 8-244, *Military Psychiatry*,[3] served to distill the observations and assumptions that established the doctrine's rationale and treatment/management elements. These can be condensed as follows (with some elaboration).

The Doctrine as Serving the Military Mission Through Force Conservation

- The soldier who becomes incapacitated by combat has undergone a transient psychological regression—a failure of adaptation—that is

otherwise similar to the (now) civilian acute stress disorder.

- This follows the depletion of his personal resources resulting in lowered self-confidence as a soldier and rising doubt that his combat group can prevail in combat (and thereby guarantee his protection). More specifically he has undergone:

  - *disruption of his physical and psychological defenses*—his dysfunction represents the final common pathway produced by the stress of his ordeal in interaction with his physical and personal limitations; and
  - *breakdown of his morale*—his dysfunction correspondingly represents a failure in social support (ie, the soldier sustains a loss in his sense of bonding with his unit and its mission, *esprit de corps*, or belief in the war's rationale[9]).

- The net effect is that "fear for the self" comes to dominate his mental functioning. In essence, he becomes convinced that he has reached his limits ("loss of the will to fight"[10]).
- This in turn activates an overriding motivation to psychologically withdraw from battle and welcome any exit from the battlefield (psychiatric, medical, or disciplinary[11]).
- This condition can usually be reversed if he is provided physical and psychosocial support and given an opportunity to recover in a situation of relative safety—but as near as possible to his unit and accompanied by sustained encouragement to quickly resume his military duties.

The Doctrine as Serving Humanitarian Treatment

The earlier combat psychiatrists also observed that, seemingly paradoxically, the extent of disability (among recoverable soldiers) could be dramatically reduced through restricting the scope of the treatments to physical and psychological replenishment and limiting the length of reprieve from combat to a few days. Most of those who are returned to duty under this regimen—often despite their initial protests—do not apparently incur a performance decrement nor require further psychiatric treatment. Alternatively, among those who are ultimately evacuated out of the area of the fighting, few are recovered for further military service, least of all combat duty, and many of those remain disabled.[12,13]

The Traditional Combat Psychiatry Forward Treatment Doctrine

Chapter 6 reviewed the array of commonly presenting symptoms seen among acute combat reaction casualties (a psychiatric casualty is defined by the Army as a soldier missing 24 hours or more of duty for psychiatric reasons[14]). The traditional combat psychiatry doctrine for the care of these soldier-patients can be summarized using two dimensions:

1. *Management of casualties*. This refers to the application of four principles to structure the treatment to both coincide with military requirements and bolster the soldier's recovery of duty function: proximity, immediacy, expectancy, and simplicity (PIES). These will be explained more fully below. The salutary effects associated with these management principles especially rely on the soldier's bond with the members of his unit and its leaders and his commitment to their welfare.
2. *Treatment of casualties*. This refers to the timely provision of elementary, mostly recuperative, measures for affected soldiers such as safety; rest, physical restoration, and wound care; peer support; and psychologically supportive assistance, including in recounting their disturbing combat experiences. It may also necessitate the judicious use of psychotropic medications. The beneficial effects of these treatment elements especially rely on the resiliency of soldiers and their natural ability to recover mind and spirit, as well as their military motivation, if provided a timeout from the battle and recuperative assistance.

Principles in the Management of Acute Combat Reaction Casualties

Although the PIES management principles are interwoven with the treatment principles and are overlapping and mutually reinforcing, the following provides some elaboration of each from the pre-Vietnam viewpoint (presented in their logical order as opposed to the acronym sequence).

Immediacy. As already noted, acute combat reaction cases tend to be florid, amorphous, fluid, and potentially reversible psychiatric states stemming from the soldier's having been psychologically overwhelmed or worn down by his combat experiences. Especially prominent among the symptoms are vague anxiety, personality disruption, and, important for treatment

purposes, marked suggestibility. The latter is believed to be the consequence of the soldier's still ongoing internal struggle between his emotional investment in his primary combat group and his heightened self-protective impulses. Consequently, the rapid provision of military-oriented, crisis intervention measures increases the likelihood of his having a favorable outcome, primarily through resuming his duty functioning.[6]

Proximity. Affected soldiers are also more likely to recover when they are treated as if they have developed a common, temporary reaction to combat stress and thus as near their units as is practical ("forward treatment"). The latter encourages the maintenance of ties with unit comrades, which in turn bolsters unit identity and the urge to rejoin them and contribute to the accomplishment of the unit's mission. As Glass noted from World War II and Korea, absent or disturbed relationships with combat unit members is the primary factor responsible for the development of the combat reaction.[15] Immediacy and proximity are best accomplished by the unit's field medics and the medical personnel operating at the 1st echelon of care, the battalion aid station.

Simplicity. Optimally, the soldier's recovery follows a brief period of rest and recuperation and, with the psychiatric team's assistance, ventilation of his psychologically disturbing combat experience. However, according to Glass, one-on-one therapy, in fact even interview methods that seek to uncover basic emotional conflicts or attempt to relate combat stress symptoms with past personality patterns, can be counterproductive. The results of such explorations suggest logical explanations for the soldiers' combat exhaustion and tend to convince them, as well as their therapists, that they have reached the limits of their combat endurance as a consequence of psychological susceptibility. This is especially true regarding the application of specialized methods, including barbiturate interviews and hypnosis, to encourage catharsis and abreaction of traumatic, and in some instances repressed, battle events. While these approaches may help relieve anxiety, soldiers treated through these means are rarely recovered for combat duty. They commonly plead or insist they should not be sent back, and therapists, who have become impressed by all the stories of trauma they have heard, identify with their distress and promise exemption from future combat exposure. According to Glass, a simplified "repressive or suppressive" therapy is preferable, whereas uncovering depth techniques and other abreaction methods should be reserved for "severe or resistant cases where the therapeutic goal was either recovery for non-combat status, or the relief of regressive or other grossly incapacitating symptoms."[6(p727)]

Similarly, the doctrine advises that specialized psychiatric treatment in 2nd and 3rd echelon treatment settings (division clearing stations and hospitals in the theater) should mostly come from the clinical milieu there, that is, the prorecovery culture of the psychiatric unit, especially that fostered by the enlisted social work/psychology techs. Moreover, the psychiatrists should have a less conspicuous presence. According to Hausman and Rioch:

> Personal attention from the psychiatrist, except on a clearly routine basis, may well imply special attention and, consequently, more serious illness. Thus, it may impede recovery. . . . Consequently, the enlisted specialists may take a *routine* [authors' emphasis] social history, but the physician only deals with the precipitating events and the current responses.[8(p733)]

In addition, discrepant messages should be avoided, such as telling a man he has no illness and then prescribing medication, or treating a man for exhaustion but inquiring as to his childhood experiences as though his present response was due to some long-standing "weakness."[8] (This admonition had considerable implication regarding the ubiquitous use of psychotropic medications in Vietnam.)

Expectancy. This refers to an overarching clinical attitude that has long been recognized to be essential in restoring combat soldiers and returning them to duty. The treatment team's collective attitude of expectancy shapes the various physical, psychological, and environmental interventions to reinforce the patient's self-confidence as a soldier, discourage self-protective feelings, and reduce the secondary gain wish for medical exemption from further combat. Overall, the soldier is managed more as a soldier and less as a patient. Despite being under medical care, the quasimilitary treatment environment encourages him to believe his condition is a natural reaction to stress and fatigue, and that he can and will recover quickly, rejoin his comrades, resume his military job, and regain his self-respect—even if his job is dangerous or he still has some of the symptoms that brought him to medical attention.

Shaw described the requisite exhortative approach:

> Reinforcement is given to the soldier's softly heard voice of conscience, which urges him to stay with his buddies, not to be a coward, and to fulfill his soldierly duty. Encouragement is given to patriotic motivation, pride in the self and the unit, and to all aspects of one's determination to go through with one's commitment.[16(p131)]

In summary, the traditional forward treatment doctrine for combat reactions advocates a push/pull approach. The "push" is from the medical/psychiatric personnel who offer temporary safety, compassion, and restoration, but who are simultaneously unwavering in urging the soldier to return to his unit and his duties as soon as possible. (This is consistent with the indoctrination provided new Army physicians at the Medical Field Service School [MFSS] at Fort Sam Houston, Texas, during the Vietnam War in which they were advised to adopt the clinical attitude of "studied indifference," as opposed to "aggressive concern."[17]) The "pull" is from the soldier's comrades who are nearby and expect him to relinquish his patient status and rejoin them in their brotherhood and achievement of the mission (ie, by promoting what has historically been referred to as "concurrence" [of the group] and "commitment" [to its task][8]). According to Glass, this approach, along with physiological restoration, serves best to reactivate the soldier's previous defenses and return him to his premorbid state; it allows him to "regain confidence and mastery of the situation and prevents chronic tension and guilt."[6(p730)]

Ethical Strain Sometimes Associated With the Doctrine and "Expectancy"

In some instances combat psychiatrists (as well as allied medical and mental health personnel) can be subjected to exquisite moral and ethical strain in the course of implementing the Army forward treatment doctrine, especially the principle of expectancy.[5] The subject of ethical conflicts and the psychiatric treatment provided in Vietnam will be more fully explored in Chapter 11.

Army Technical Manual 8-244: Pre-Vietnam Guidelines for Management and Treatment of Combat Reaction Cases

A functional blueprint for the adaptation of the psychiatric forward treatment doctrine to the three-echelon system of combat medical care implemented in Vietnam was contained in Army Training Manual (TM) 8-244, *Military Psychiatry*.[3] It was published in 1957 and served as a practical distillation of the military psychiatry experience obtained during the Korean War. This section will summarize the more salient features of the manual and provide some elaboration.

Psychiatric Care and the Three Echelons of Army Medical Care System

According to TM 8-244, primary psychiatric care is to be provided at the battalion aid station level, specialized psychiatric care at the brigade/division clearing station level, and more extensive, specialized psychiatric care in the hospitals with psychiatric specialty detachments. However, early care of combat stress-generated problems should come through psychological "first aid" by members of the soldier's platoon or company. An especially good example of such care can be found in an article written for *Army Digest* in 1968 by William O Woolridge,[18] Sergeant Major of the Army (Exhibit 7-1). In his article, "So You're Headed for Combat: How to Get Ready and What to Expect," Woolridge provides the soldier-reader with education, reassurance, exhortation, justification for the Army's engagement in combat, and encouragement to bond with fellow soldiers as a crucial countermeasure against the loss of morale and self-confidence.

In addition to help by combat buddies, officers and noncommissioned officers (NCOs) should provide reassurance and counseling, firm discipline, modified job assignments in suitable cases, and "expect the best from their men." The Medical Field Service School recommended REV: rest (only a few hours); exhortation (reinforcing the necessity of the soldier's resumption of duty); and ventilation (of his recent combat ordeal or anticipatory fears).[19] The overall objective is to mitigate the soldier's stress as well as preclude his becoming a psychiatric casualty, that is, requiring formal medical attention at the battalion aid station. According to TM 8-244:

> As combat approaches, palpitation, nausea, tremulousness, and other somatic manifestations of the usual fear reactions appear. [In the absence of support and reassurance] the soldier becomes alarmed and, interpreting these symptoms as those of heart disease, gastrointestinal disease, or some other physical disorder, he reports to his medical

EXHIBIT 7-1. Soldier-to-Soldier Counseling for the Normal Combat Reaction

These comments by Sergeant Major of the Army William O Woolridge are excerpted from an article published in 1968 in Army Digest *for soldiers bound for Vietnam.*

We have an Army for one reason—to fight. And we fight only to preserve the things we American people believe in. That's why all your training is aimed at making you ready to fight. Training is tough because combat is tougher. You must be physically tough, mentally alert, and skilled in the care and use of your weapons. These plus your eagerness to use them for the good of the team add up to what we call military discipline.

How do the conditions—confusion, noise, waiting, and weather—affect the individual [anticipating combat]? You'll be afraid. The most outstanding reaction is FEAR. Don't ever let anyone kid you about this. Every normal man has a fear of battle. There are few, if any, men who really relish combat. But in your first fire fight, you are likely to have mixed feelings. In a way, you'd just as soon avoid the whole business. On the other hand, you want to mix it up a bit and find out how good you are. You wonder how you'll stack up with the other men in your unit. Will you do the right thing? Will you have the courage to carry through with the job? Nearly every man who ever went into combat pondered these questions. Chances are your reaction to battle will be the same as theirs. You're going to be scared—and you're going to have lots of company.

What are the signs of fear? You may experience all or any one of these, or some we won't mention. Your throat and chest feel tight. Your mouth is dry. You try to swallow but you don't succeed very well. Your hands shake and perhaps your palms are sweaty. You repeat some meaningless act such as checking the time or patting the rounds in your magazine pouch. Veteran soldiers also experience these reactions caused by fear. The difference is that veterans have learned to control their fears better than green troops. Fear is not altogether undesirable. It is nature's way of preparing your body for battle. As a consequence, the body automatically undergoes certain changes. You may temporarily lose a sense of fatigue, no matter how tired you are. Your heart pumps faster and sends more blood to your arms, legs, and brain. Your blood pressure goes up. You breathe faster. Your adrenal glands are stimulated and their strength-giving secretion is poured into your blood stream. More sugar, which is fuel for your body, is released into the blood. If you're wounded, your blood clots more easily to stop the bleeding. Surprisingly enough, action or "doing something" will also help you overcome the initial paralyzing effect of fear in combat. This is especially true when you're waiting for battle and the suspense is bothering you. Put your fears aside by doing something—even if you have to make work for yourself. The man who controls his fear and goes about his business despite it is a courageous man. There's no limit to what courage can accomplish on the battlefield. A worthy goal is to become a responsible, dependable soldier who doesn't let his fear stop him from doing his job.

One of the easiest things to do is talk to someone. Talk is a convenient way to relieve your tension—and it also helps the men you are talking to. Talk helps before, during, and after the battle. It has been said that the battlefield is the most lonesome place men share together. Talking with your buddies helps overcome this lonesomeness. It's a reminder that the rest of the team is with you. Your confidence goes up and your fear goes down when you think of the coming fight as a team job.

[Once the fighting begins, remember,] you're not in battle to pass a requirement. You're in battle to kill the enemy and the way you do that is to shoot your weapon. Even if you don't actually see him, and most of the time you won't, fire where you think he is. Another thing which helps you to overcome fear in combat is to fire your weapon with the rest of the team. It also helps defeat the enemy. This sounds like obvious advice. You'd be surprised how many men disregard it.

We could talk for days about what combat is like, but one thing is evident. . . . SURVIVAL IN COMBAT IS NOT SOLELY A MATTER OF LUCK. Doing things the right way is more important than luck in coming through a battle alive.

Source: Woolridge WO. So you're headed for combat: how to get ready and what to expect. *Army Digest*. 1968;23(1):6–11.

officer . . . [because this is] a culturally acceptable manner of . . . communication.[3(p71)]

1st Echelon Psychiatric Care: Nonspecialized Management and Treatment at the Battalion Aid Stations

Recommendations for Care. First echelon care encompasses basic medical and psychological treatment provided by nonspecialized medical personnel assigned to the battalion aid station, that is, field medics and the battalion surgeon, who functions as a general medical officer. According to TM 8-244, treatment for combat stress-generated symptoms at this level would begin with a proper evaluation, especially regarding physical complaints. It may also include pharmacologically assisted sleep/rest (using sodium amytal, 0.4–0.6 grams, or the equivalent in other barbiturates). The supportive psychotherapy provided requires that the

therapist be calm, confident, understanding yet firm, and expect early resumption of duty function. TM 8-244 furthermore specified that:

1. For normal fear syndromes (ie, manifested by palpitation, nausea, tremulousness, and other somatic manifestations of the usual fear reaction, along with somatization and preoccupation with organic symptoms), the soldier should be provided explanation and reassurance that physical manifestations of fear are normal.
2. For mild/moderate anxiety syndromes (ie, manifested by anxiety associated with varying degrees of exposure and exhaustion), he should be treated with sedation and measures designed to counteract physical depletion as well as provide reassurance, explanation "of the realities involved," and support.
3. For severe neurotic syndromes/psychotic syndromes (ie, manifested by severe agitation and tension, acute panic reactions, marked hysterical symptoms, or acute psychotic reactions), sedate and evacuate him to 2nd echelon care facility.
4. For behavior and attitudinal problems (the unwilling, inadequate, malingerer, symptom exaggerator, or straggler), treat him with uncompromising firmness, including references to administrative and judicial consequences, or refer him to his commanding officer.

Unresponsive Cases. In general, if the soldier's psychiatric symptoms extend beyond roughly 24 to 48 hours, he should be transferred further from the area of the fighting to the clearing station, which is located at the division or brigade base (2nd echelon treatment facility), for specialized psychiatric treatment.[3] According to the Korean War experience, roughly 20%[20] to 40%[3] of combat-affected soldiers did not respond to 1st echelon care interventions. Some demonstrated persisting tension and feelings of helplessness, severe ego constriction and depression, noise sensitivity (especially in reacting to ordinary stimuli as if they were battle stimuli), explosive outbursts of rage, and battle nightmares. Jones indicated that these resemble civilian traumatic neuroses and represent the combination of the battle trauma with predisposing personality vulnerability. However, clouding this picture is the general observation that, in the theater of combat operations, "gain in illness" may contribute to the "fixation" of combat stress symptoms among soldiers; thus, for any particular soldier, it is difficult to distinguish between circumstantially determined symptoms and irreducible limitations in his personality. In other words, under sufficiently adverse field circumstances, predisposition may be just one of a host of variables contributing to the reluctance of soldiers to "give up their symptoms" because they permit an honorable medical exemption from further combat risk.[21]

2nd Echelon Psychiatric Care: Specialized Management and Treatment at the Division Clearing Company

Recommendations for Care. According to TM 8-244, soldiers requiring care at this level should be those in categories (2) and (3) above. Treatment would be provided by the division psychiatrist and his staff, that is, the division social work officer and the enlisted social work/psychology technicians. They were expected to maintain a small treatment facility at the brigade or division's base camp in conjunction with the clearing company. Although hospital-like, it was not technically a hospital, but it offered a broader range of support and treatment than what was available in the field. According to TM 8-244, "Every possible step is taken to foster the patient's expectation of return to full duty after a brief rest."[3(Chap6,§4,No97,p75)] This included operating in a tent and the administration of care by enlisted specialists in regular uniform. It also meant that soldier-patients would sleep on folding cots with neither mattress nor sheets, remain ambulatory and wear their regular uniform, serve themselves meals and go to the latrine unassisted, and perform work details when asked. Otherwise, the psychiatrist "avoids suggestion of organic or psychiatric illness. He maintains an attitude of firm kindness, and avoids display of oversympathy and concern."[3(Chap6,§4,No97,p75)] However, for soldiers still affected by fatigue and exposure, TM 8-244 included the provision of "rest under sedation" and the "alleviation of deprivations" (both physical and psychological).

TM 8-244 also called for individual therapy of combat reaction casualties at this echelon, both psychologic and pharmacologic. These are spelled out in Exhibit 7-2. In the division clearing stations (and even more so in the 3rd echelon psychiatric treatment facilities), an additional treatment focus becomes helping soldiers manage the guilt they experience as a result of feeling they let their combat buddies down. Still,

EXHIBIT 7-2. Korean War Era Treatment for Soldiers With Combat Reaction

The following list of psychotherapeutic and pharmacologic techniques for the specialized field treatment of soldier-patients with combat reactions is excerpted from the post-Korean War (1957) Army Technical Manual, Military Psychiatry *[TM 8-244].*

1. The patient–physician relationship: This combines an attitude of respect and sympathy for the patient and "qualities of firmness, decisiveness, and realism." History taking can be a therapeutic intervention when "the examiner hears the patient out, and the patient feels he has received an adequate hearing." Also, the psychiatrist should not ask leading questions. These soldiers are "extremely responsive to suggestion, whether for illness or health. . . . Every effort should be made not to lose a potential therapeutic factor within the resources of the soldier himself."
2. Ventilation: Alludes to allowing them to express their fears, hopes, and resentments. "While it is being produced, the psychiatrist strives to remain interested and attentive, utilizing only the amount of verbal or nonverbal activity necessary to maintain this type of communication."
3. Support for the superego: This entails the strengthening of the soldier's "loyalties to his buddies . . . and pointing out to him the implications of his duty to support and defend his family."
4. Suggestion: In general, this refers to a positive suggestion that is "implanted in the mind of the patient—that he is not seriously ill, that his symptomatology will be markedly alleviated, and that he will return to full combat duty." It may also be used specifically to eliminate specific hysterical symptomatology (eg, a tic, blindness, or paraplegia).
5. Sedation: Patients who have been on the battlefield within a few hours of admission often require initial sedation (usually oral sodium amytal, 0.4–0.6 grams or its equivalent in Nembutal). Overall, its purpose is to facilitate one night's sleep. Continuous heavy sedation is contraindicated. Sedation with barbiturates is also contraindicated for patients who are confused and disoriented. Also, "the more experienced the psychiatrist, the less he relies on sedation."
6. Uncovering therapy: This is primarily directed at recovering repressed traumatic battlefield experiences. It is usually accomplished with a firm suggestion and often brings about the release of strong emotion, ie, abreaction. Uncovering therapy using intravenous barbiturates (pentothal or amytal), that is, narcosynthesis, may be utilized in extreme cases. Hypnosis may serve as an alternate approach. Whereas these may be useful in relieving symptoms, they are rarely effective in returning individuals to combat duty.
7. Explanation: Soldier-patients commonly derive great benefit from learning about the causation of their symptoms, especially regarding the "normal battle reaction," that is, the predictable psychologic and somatic symptoms accompanying battle fear.
8. Reassurance: Soldier-patients also greatly benefit from being assured that, after a proper physical examination, they have no serious illness, their condition will be short-lived, and it is not the consequence of "insanity."
9. Manipulation of secondary gain: "Symptoms will often be markedly ameliorated following a firm disposition decision to return the soldier back to duty."
10. Manipulation of the environment: This includes suggestions made to the soldier's commander as to temporary alterations in his work assignment or regarding the attitudes of others toward the soldier.
11. Utilization: This refers to an array of means that can be employed to maintain the soldier's identification with, and proximity to, his primary combat group.

expectancy of return to duty—perhaps to a noncombat unit in the division, or at least in the theater—should be the overriding attitude of the treatment team. This outcome permits the soldier some recovery of his self-esteem through functioning in a military role.

Unresponsive Cases. If, following this treatment, the soldier failed to recover his functioning within roughly 3 to 5 days from the onset of symptoms, he should be evacuated out of the operational area of the division to one of the Army-level hospitals in the theater, that is, a 3rd echelon treatment facility/neuropsychiatric detachment. By one report summarizing the Korean War experience, roughly 25% of combat-affected soldiers referred to the division psychiatric facility will not respond to the treatment provided there.[22]

3rd Echelon Psychiatric Care: Extended Management and Treatment at the Psychiatric Specialty Detachments

Recommendations for Care. The same treatment elements that were applied at the division clearing stations would be expanded for soldier-patients

who were hospitalized in the specialized psychiatric treatment facilities. The obvious beneficial difference is that these units provided a greater level of protection by being more remote from the fighting, an increased length of time for treatment, and the utilization of an augmented staff with specialized training. However, according to the forward management principles in the doctrine, these same features also mitigate against the soldier recovering his premorbid military functioning. In this regard, TM 8-244 specifically advocated that soldier-patients in these treatment facilities remain in regular uniform, participate in rigorous combat training, and not be allowed "to hibernate." The staff should maintain the "proper therapeutic atmosphere," avoid the suggestion of serious psychiatric illness, and emphasize early return to duty. ("When they learn that they are expected, as normal individuals, to perform either routine combat or noncombat duties, the vast majority improve rapidly."[3(Chap6,§4,No98,p88)])

Unresponsive Cases. It was assumed that most soldier-patients at this level could still be treated and returned either to full duty or to noncombat duty within their division. However, if they continued to manifest disabling symptoms after 30 or more days of treatment and rehabilitation, they were to be either evacuated out of the combat theater to an Army general hospital in the communications zone (out of the combat theater but still in the rear part of theater of operations, which contained communications, supply and evacuation networks, and means for supporting the field forces) or to one in the United States. It was furthermore assumed that those requiring evacuation out of the combat theater would mostly be individuals with persistent psychotic conditions, and they could be evacuated sooner than 30 days if the clinical staff concluded that they were not likely to recover within that time span or if they were unlikely to be returned to duty within the combat zone.[23]

Use of Psychotropic Medications for Combat Reaction Symptoms

Through the ages the extreme physical and emotional demands of combat naturally led warring states to experiment with various psychoactive substances to limit excitement and fear and reduce exhaustion and dysfunction among their warriors.[24] In the American wars leading up to Vietnam, the use of medications in the treatment of combat-generated psychiatric casualties was generally limited to sedatives, especially chloral hydrate and bromides in World War I and barbiturates in World War II.[25] American psychiatrists in World War II commonly used sodium amobarbital and pentobarbital for nighttime sedation in the treatment of acute combat stress cases, and British psychiatrists advocated continuous narcosis for 4 to 10 days utilizing both insulin and barbiturates. Sodium amobarbital was also thought to be useful in facilitating the abreaction (emotional release) of repressed traumatic combat experiences—the "Amytal" (amobarbital) interview.[26] However, as already noted, there could be a problem with functional impairment associated with use of sedating drugs; also, their use could contribute to soldiers' believing that they had a combat-exempting psychiatric condition.[25] Finally, and apparently quite important, TM 8-244 indicated that, "the more experienced the psychiatrist . . . , the less he relies on sedation."[3(Chap6,§4,No97,p78)] This suggests the experienced combat psychiatrist would be more conservative in prescribing medication and thus reduce the risk of problematic side effects because he had confidence in the other treatment elements, the soldier's capacity for recovery without medication, and the necessity of his resuming full military function.

Challenges in Measuring Management/ Treatment Outcomes for Combat Reactions

From the standpoint of the military mission, the inherent metric that serves to validate these principles for the management and treatment of combat reaction cases is the percent of psychiatrically disabled soldiers who can be restored and returned to duty, especially combat duty. Of course this objective includes the proviso that, upon release from medical control, they perform their duties capably. Thus military medical and psychiatric leaders have historically placed a premium on limiting the time that soldiers are excused from duty because of combat stress-generated symptoms, and they have monitored the proportion of admitted soldiers who are returned to duty status. In fact, the overall goal with respect to all forms of psychiatric attrition—measured in evacuation rate from the theater—has been to approximate the apparent irreducible minimum, one to two per 1,000 deployed troops, which equals the Army's worldwide rate for psychosis through periods of war and peace.[3,27]

However, comparisons between Vietnam and the earlier wars have been difficult because of ambiguities in diagnostic criteria. For example, Hausman and Rioch claimed that Army psychiatrists were successful

in the Korean War because the lessons drawn from World War I and World War II were utilized to the fullest by division psychiatrists and allied mental health personnel: 65% to 75% of soldiers diagnosed as combat exhaustion at the division level or forward were returned to duty, and 70% of referrals to 3rd echelon care hospitals were returned to duty, although typically to noncombat units; however, the authors hasten to add that the term *combat exhaustion* was used to designate *all* (emphasis added) psychiatric casualties. Still, of those returned to duty status in the divisions, only 10% required additional psychiatric attention. And of the soldiers evacuated beyond the division, 70% were successful at duty in noncombat assignments.[8] Also, as reported by Johnson, Rioch (with Harris) queried the superiors of men returned to duty in Korea following psychiatric hospitalization and found that 80% to 90% of them were functioning satisfactorily. Regarding long-term negative effects, Rioch indicated that the patients treated utilizing these principles in World War II and in Korea were not overrepresented in clinical populations in the Veterans Administration related to their combat stress and treatment.[27]

VIETNAM: OBSERVATION AND INTERPRETATION

Inconsistencies in Disseminating the Combat Psychiatry Treatment Doctrine in Vietnam

As noted, during the planning for the war in Vietnam, Army medical and psychiatric leaders assumed that the combat troops fighting there would face stressors similar to those found in earlier wars, and they advocated the replication of the structure for the prevention and treatment of psychiatric casualties that had previously proven so effective. However, similar to the absence of uniformly disseminated diagnostic criteria for combat reactions in Vietnam, there was also unevenness regarding the dissemination of a treatment protocol there. For example, whereas the Army regulation governing the provision of psychiatric care at the time, Army Regulation (AR) 40-216, *Medical Service: Neuropsychiatry,*[28] provided some guidance as to the traditional management principles for combat reactions, it did not specifically address treatment:

> In combat, treatment will be instituted early, as near the front as practicable, and in a military rather than a hospital atmosphere. Less severe cases should be treated at the Battalion Aid Station level whenever the tactical situation permits. Early return to duty is the desired objective and intrinsically therapeutic for the majority. This can be accomplished only if the medical officer accepts his full responsibility to make this often difficult decision objectively and without temporization. Psychiatric patients other than those treated at the aid station will be channeled to the division psychiatrist or when appropriate to the neuropsychiatric treatment facility in direct support of the combat unit to avoid loss of men to the rear.[28(§1,¶4b,p3)]

Newly inducted Army physicians assigned directly to Vietnam did receive some pre-Vietnam didactic familiarization with the Army's stress and fatigue model of combat breakdown ("[t]he two most important ingredients that make up the source of combat exhaustion are fear and physical exhaustion"[22]). In conjunction, they were instructed to manage combat breakdown cases early, conservatively, and with restraint with regard to prolongation of care or evacuation. However, as the following from Training Document GR 51-400-960—"Organization of Psychiatric Services at Division Level"[20]—indicates, the recommendations they received for treatment were brief, and the only reference to psychopharmacology was that of "mild sedation."

> The initial detection of the Combat Reaction casualty is usually by the unit leader. In many situations the company aid man can be expected to assist in both detection and treatment. As a result of early detection, simple measures within the unit may be sufficient to return the soldier to duty. If the illness becomes more severe, the soldier is seen in the battalion aid station [1st echelon care]. . . . At this level, the soldier is held as a patient not more than 24 hours [depending] on patient load and tactical situation. Treatment measures are simple and usually easily applied. Such things as reassurance, ventilation, relief from physical discomfort; when necessary, mild sedation, a good night's sleep, a hot meal, and understanding, and firm handling are all most soldiers need. . . . Some soldiers require a temporary change in assignment, but most are able to return to duty. Keeping them with their unit if at all possible is the most beneficial action medical personnel can take.[20(pp4–5)]

Most puzzling, TM 8-244, *Military Psychiatry*,[3] which was reviewed in the previous section, was not systematically distributed to the Army medical officers who deployed to Vietnam, including psychiatrists. (This omission was confirmed by data gathered from the veteran Army psychiatrists in the WRAIR survey.) As mentioned in Chapter 6, this lack of available information might have been somewhat rectified in 1967, 2 years into the war, when Arnold W Johnson Jr, the second US Army Republic of Vietnam (USARV) Neuropsychiatry Consultant in Vietnam, published "Psychiatric Treatment in the Combat Situation" in the *US Army Vietnam Medical Bulletin*. In this excellent review, Johnson spelled out the diagnostic criteria for the combat reaction and elucidated the Army's field principles for its prevention and treatment. He also included an account of the doctrine's evolution from earlier wars and the pragmatic observations that validated its effectiveness, both in the acute battlefield situation and in reducing morbidity.[27] It is uncertain if Johnson's synopsis was disseminated in the theater in 1967, but it is even more doubtful regarding the five annual cohorts of replacement physicians, including psychiatrists, who would follow (1968–1972). Still, overall, the published record of the psychiatric care provided for combat reaction cases by Army psychiatrists and their mental health colleagues does suggest that at least knowledge of the doctrine's management principles was widespread in Vietnam, even if they were not uniformly applied.

Missing, however, is evidence that efforts were made at a central level in Vietnam to incorporate the new generation of psychotropic drugs in the doctrine as the war progressed. For example, Johnson's otherwise thorough 1967 review recommended "mild sedation" for soldiers with combat reaction, whereas, evidently even in the first years of the war, some division psychiatrists, such as Byrdy and Bostrom, had been confidently prescribing anxiolytic or neuroleptic tranquilizers.

Documentation of the Care of Combat Stress Reaction Cases in Vietnam

The following summarizes the available professional literature regarding the care provided for troops in Vietnam who had combat-induced psychiatric conditions and symptoms, including combat stress reaction (CSR).

Mental Health First Aid

There is no available information in the professional literature that would serve to document the psychological first aid that may have been provided within the small combat units serving in Vietnam, but it was likely ubiquitous. After the war, Stewart L Baker Jr, a senior Army psychiatrist, reported that Vietnam was unique among American conflicts in that unit commanders had been trained to use common sense to "size up" soldiers with psychiatric complaints; appreciate the value in psychiatric first aid supplied by members of their own combat unit, especially the medics; and not evacuate soldiers with relatively minor problems. He also maintained that the division psychiatrists in Vietnam routinely indoctrinated newly assigned line officers in the principles of forward area psychiatric treatment.[26]

Battalion Aid Station/1st Echelon Care of Combat Stress Reaction Cases in Vietnam: Treatment by Battalion Surgeons and Field Medics

Army psychiatric leaders expressed satisfaction in the 1st echelon psychiatric care directed by the battalion surgeons (Figure 7-1). For example, William S Allerton, Assistant Chief, Psychiatry and Neurology Consultant to the Army Surgeon General, summarized the Army psychiatry experience through the first half of the war and indicated that primary care physicians had managed the lion's share of the combat reaction cases. He credited their having been indoctrinated in military psychiatry at the MFSS, Fort Sam Houston, Texas, and that they had more exposure to psychiatry in their medical training compared to the physicians who served in earlier wars. However, he remained vague regarding specifics as to their use of psychopharmacology. He only acknowledged "occasional sedation and sometimes tranquilization"—less than what would be prescribed for a comparable population in the United States.[23]

Anecdotal reports from psychiatrists who served in Vietnam also suggested that the treatment provided at the 1st echelon care level was effective in reducing soldier attrition from combat stress. During the first year of the war, John A Bowman, with the 935th Psychiatric Detachment, observed that uncomplicated combat exhaustion cases not only had a low incidence, but most were effectively treated by field medics and battalion aid station personnel within the combat divisions.[29] The following year, Bostrom, division psychiatrist with the 1st Cavalry Division, reported that over a 3-month

FIGURE 7-1. Battalion aid station, 1st Cavalry Division, 1970. A medical treatment facility such as this one would typically be located forward of the division base camp in the battalion's area of operations. Its staff would consist of a battalion surgeon, who is a primary care physician, and medical corpsmen. They would provide 1st echelon medical care for the battalion's sick and wounded soldiers. Combat stress casualties would also receive their initial care here, which would coincide with the combat psychiatry management and treatment doctrine (proximity, immediacy, expectancy, simplicity). Photograph courtesy of Richard D Cameron, Major General, US Army (Retired).

span, only 11 precombat syndrome cases and four combat exhaustion cases were referred to him from the battalion surgeons.[30] The same year, William L Baker, division psychiatrist with the 9th Infantry Division (ID), indicated that most combat fatigue cases in the 9th ID were managed by the battalion surgeons using rest and sedation "as they had been taught at Ft. [Fort] Sam [Houston] and by my instruction."[31(p5)] Robert L Pettera, who followed Baker at the 9th ID, confirmed his observation. "A great number of these soldiers are treated at the battalion aid station now, and are not seen in mental hygiene unless the doctor is not satisfied that his patient is responding."[32(p674)]

Further illustration from the field came from the USARV Psychiatry Consultant, Johnson, who offered the following:

> I've talked with [battalion surgeons] who understand this process very well and need little help from psychiatrists or social workers. The 1st Infantry Division at Di An is perhaps the division that has seen more combat fatigue than any other. They've had some lengthy operations in which the fellows stayed out in the jungle for long periods of time, and right along they've had maybe up to 6 or 8 combat fatigue cases a month—not a large number, but a steady trickle—which have gotten back to the [division] psychiatrist. However, there have been many more that have been taken care of in the medical companies, sometimes by the social work technicians in conjunction with the [battalion surgeons].[33]

Forward Treatment of Combat Stress Reactions by Enlisted Social Work/Psychology Technicians

However, Johnson's statement also illustrates the difficulty in distinguishing between 1st echelon, nonspecialized mental health care, and care provided there by personnel with specialized training. This is because, as noted in Chapter 3, division psychiatrists commonly attached one or two of their enlisted psychiatric technicians to the forward clearing stations and medical companies of the brigades in support of the battalion surgeons and the other forward-operating medical personnel (Figure 7-2); however, organizationally these enlisted specialists belonged to the division medical battalion and functioned under the technical supervision of the division psychiatrist (2nd echelon care). For example, Gerald Motis, who saw numerous combat stress casualties as the division psychiatrist with the 4th ID in 1967–1968, indicated that his forward-deployed enlisted social work/psychology technicians were crucial in reducing the attrition of these soldiers. He described how these psych techs applied "time-honored" treatment techniques, that is, support in abreaction, encouragement, and exhortation, and, as a consequence, the majority of soldier-patients were eager to rejoin their units within 24 hours. He also noted that the use of intramuscular Thorazine by the battalion surgeons served as a valuable adjunct in aiding rest and restraint. Two years after Motis was in Vietnam, Douglas R Bey, a division psychiatrist, similarly indicated that most combat stress-generated casualties arising in the 1st ID were "treated by their unit corpsman, the battalion surgeons, or our nearest social work/psychology technician"[34(ChapIX,p2)]; however, by that time in the war there were apparently fewer cases requiring treatment.

Johnson provided this commendable example of the work of one of the semiautonomous social work/psychology technicians:

> Operation Attleboro was one of the big operations last fall [1966] . . . there were two companies of the 25th Division up in that area who got hit rather hard. They worked hard during that period but they sustained a lot of casualties and a lot of people's buddies got killed. At the medical clearing company of the 196th Brigade at Tay Ninh there's a social work specialist by the name of Mann, the only mental hygiene-kind of personnel [there]. He has operated in such a manner that the medical people have gained great confidence in his ability to screen and work with psychiatric patients. Specialist Mann submits monthly reports to me on the patients he sees . . . , and I talked with him about what happened during Operation Attleboro. Inside of a couple of days or so, Mann processed about 12 or 14 soldiers from these two companies who were essentially a form of combat fatigue or combat exhaustion. The way Mann described it, these were rather typically "shook up" and anxious, frightened and exhausted kids. He treated them in conjunction with the doctors there in the classical textbook fashion for combat exhaustion with a little rest, a little ventilation, a little reassurance, a little food, and sleep overnight. After 24 hours they all went back to duty and, as far as he could tell, they all

TABLE 7-1. A Summary of Division Psychiatrists' Management and Treatment for Combat Reactions in Vietnam

Psychiatrist Unit and Year	Treatment Provided for Combat Reaction Cases	Medications Utilized
Byrdy 1st Cavalry Division 1965–1966	"Hospitalized" two-thirds of referrals; treated the remainder as outpatients who were on light duty Provided brief, simple treatments Adhered to principles of "immediacy, proximity, expectancy" Pharmacotherapy Evacuated unresponsive patients out of division after 3 days	Inpatients: Librium and Thorazine Outpatients: Librium
Bostrom 1st Cavalry Division 1967–1968	Encouraged decentralized, forward treatment Provided simple treatment, that is, "limited indulgence" (rest, empathy, food) Emphasized expectancy of return to combat duty	For combat exhaustion: Thorazine, also *dauerschlaf**
WL Baker 9th Infantry Division 1967	Most were housed at base camp, rested, and treated as outpatients over 2–3 days Provided counseling ("ventilation" and supportive psychotherapy), recreation, and pharmacotherapy, especially for disturbed sleep and trauma dreams Recommended noncombat duty for those with persisting symptoms	For anxiety: Seconal as sedation For sleep: Hypnotics (ie, Seconal 100 mg–200 mg) For GI upset: Combid spansules (Prochlorperazine 10 mg and isopropamide 5 mg), Compazine, Pro-Banthine, or Donnatal
Pettera 9th Infantry Division 1967–1968	For *combat exhaustion*: provided sleep-inducing medication (no specifics) For *Vietnam Combat Reaction*: provided 3 days of "R & R" at base camp plus ventilation, reassurance, pharmacotherapy, and exhortation of return to combat	*Vietnam Combat Reaction:* For anxiety: Librium (20 mg qid) For GI upset: Combid spansules, 1–2 b/meals For sleep: Seconal (200 mg) or Doriden (500–1000 mg)
Motis 4th Infantry Division 1967–1968	Provided initial forward treatment at brigade clearing stations "Hospitalized" unresponsive cases with other casualties for 2–3 days Provided rest, pharmacotherapy, hot meals, and "a few luxuries" Counseling included "invitation to ventilate" their combat ordeal, exhortation, and encouragement	For rest and, for some, restraint: IM Thorazine For selected cases of conversion hysteria: sodium amytal interview
Bey 1st Infantry Division 1969–1970	24-hour "hospitalization" Provided supportive psychotherapy and pharmacotherapy, including for disturbed sleep and trauma dreams	For combat exhaustion: Thorazine (100 mg qid), also *dauerschlaf** For selected conversion cases (rare): sodium amytal interviews

Data extracted from psychiatrists' reports reviewed in Chapter 3 of this volume.

**Dauerschlaf* is a treatment protocol involving the administration of sufficient Thorazine to induce arousable sleep for about 24 hours. This treatment approach was also used by Navy psychiatrists treating Marines with combat exhaustion.[1]

Reference: Strange RE. Combat fatigue versus pseudo-combat fatigue in Vietnam. *Mil Med*. 1968;133(10):823–826.

> did fine. So it isn't that these cases don't happen; it's that to some extent they are being handled perhaps better than they have at times in the past. This is a credit to the other physicians in the area, too, that they understand this process and are able to cooperate with it.[33]

Matthew D Parrish, who succeeded Johnson as USARV Psychiatry Consultant and who later (with Edward M Colbach) published a review of the Army psychiatry experience in Vietnam through 1970, described the collaboration that would optimally take place between the medical personnel assigned to the battalion aid stations, the enlisted social work/psychology technicians borrowed from the division, and the soldier's unit-based medical personnel and leaders:

> The general medical officer, who works in the field at the battalion or dispensary level, has proven to be quite sophisticated in mental health principles. He has often been the first real line of defense against psychiatric casualties.
>
> . . . [M]ost patients have been seen first by the enlisted [social work/psychology] technicians, right where the problem has arisen, and medication given, if needed, by the unit general medical officer. Often others in the patient's unit have been called upon to help in getting him back to good functioning. This may take the form of the technician having a private conference with the sergeant, or of an impromptu group meeting with the patient and some of his buddies.[14(pp334–335)]

The exceptionally capable service provided by forward-functioning enlisted social work/psychology technicians in Vietnam was represented by Specialist 5th Class Paul A Bender in an article written for the *US Army Vietnam Medical Bulletin*. Bender was attached to a battalion aid station with the 23rd ID (Americal), 11th Light Infantry Brigade, in 1968, and he offered his perspective on the challenges he faced in treating soldiers for combat stress-generated symptoms (Exhibit 7-3). In particular, Bender suggested opposing the combat soldier-patient's regressive, "egoistic" leanings by using: empathy; reassurance (of normalcy and that the soldier will eventually overcome his symptoms and return to duty); explanation (of mental mechanisms); reflection (on how the soldier may be contributing to his own problems by defensive maneuvers such as isolation from peers); and support for his adaptive behaviors (as in encouraging his return to his unit and peer group—the classic combat psychiatric principle of expectancy).[35]

The Division Psychiatrist and the 2nd Echelon Care of Combat Stress Reaction in Vietnam: Treatment by Specialized Clearing Company Personnel

Table 7-1 summarizes the treatment elements that could be extracted from the published reports by the six division psychiatrists who specifically described their care of combat stress casualties in Vietnam. Although quite variable, collectively they suggest that the treatments more or less conformed to the doctrine, that is, all treatment elements centered on promoting the soldier's rapid recovery of previous function and reintegration into fighting units. It should be underscored that most of the actual psychiatric treatment within the combat divisions was provided by the enlisted psychiatric/social work technicians (an estimated, 75%[36]–90%[37] of the direct care of referred soldier/patients). In Chapter 6, Case 6-5, PCF Juliet served as an example of the straightforward treatment of a combat reaction case, and Case 6-11, SP4 Papa illustrated the treatment of a more complicated case of chronic combat stress; both were by enlisted social work/psychology technicians.

The few published reports by individual psychiatrists that provided follow-up data on combat stress casualties returned to duty following treatment suggest that the treatments provided by the division mental health personnel were generally effective in minimizing soldier attrition. For example, Motis noted that 18 of 23 soldiers (78%) treated for combat stress-related difficulties at the 4th ID forward clearing station were returned to duty within 1 to 3 days; and of the remaining five who were sent to the base camp for additional treatment by him and his staff, two returned to the field, while the other three were given profiles (a medically determined duty restriction) to limit their duties to the rear area of the division. Also, Pettera reported that, while combat exhaustion was rare in the 9th ID, most of the cases they treated referred to as "Vietnam combat reaction" (a "psychophysiological disturbance") were successfully returned to combat duty from the battalion aid stations. Among those who were not and who were referred to him, 85% returned to combat duty and the remainder served in noncombat positions within the division. As an interesting side note with respect to Pettera, in some instances when

EXHIBIT 7-3. Counseling the Soldier With Combat Stress Symptoms in Vietnam

The US Army in Vietnam relied heavily on decentralized mental healthcare provided by specialized enlisted corpsmen—social work/psychology technicians who had received additional behavioral science training from the Army (so-called psych techs). In the combat units, they typically operated out of a mental hygiene clinic at the clearing company medical facility (clearing station), which was located with the division's medical battalion at a brigade, or the division's, base camp. However, it was also common for enlisted social work/psychology technicians to be attached to medical units closer to the fighting to provide timely, specialized support of the battalion surgeons and other 1st echelon medical personnel. The following, excerpted from Specialist 5th Class (SP5) Paul A Bender's article, "Social Work Specialists at the Line Battalion," illustrates the perspective of the forward-functioning enlisted neuropsychiatric technician working with soldiers with combat stress reactions. SP5 Bender was deployed with the 11th Light Infantry Brigade to South Vietnam in early 1968 and assigned to its base camp at Duc Pho on the northern coast where he functioned under the technical supervision of the Americal Division psychiatrist who was based elsewhere with the division's other two brigades and divisional support units. (See also Exhibit 3-2, in Chapter 3, "Problems Associated With One-Session Counseling," derived from the same article.)

THE ANXIOUS COMBAT SOLDIER WITH SOMATIC SYMPTOMS

The usual treatment is to provide insight into the cause of the physical symptoms and to deemphasize their seriousness. An explanation [is offered as to] just how this seeming physical illness (e.g., general weakness, headache, lack of appetite, vomiting, and constant nervousness) may result from the body's attempt to mobilize for action. This provides both reassurance and insight to the patient as to how his physiology affects his capabilities in certain positive ways instead of merely the negative way he had surmised.[1(p64)]

COMBAT EXHAUSTION

[These were] our most acute cases. This type of case enlightened me as to the actual will of the soldier to surmount his difficulties. In such a breakdown the patient is overcome by the continuous strain and tension under which he has been functioning for a period of time. The symptoms usually include irritability, hypersensitivity, insomnia, anxiety, and over-reactivity. A treatment program provides sedatives, food, psychological ventilation, and therapy. The therapy consists of reassurance, understanding and explanation—all underlined by the pervasive aim of returning the patient to duty. In more serious cases, patients may be suffering from [psychological] shock, disorientation, fear, and recurring nightmares. At first, I doubted that such a condition could be reversed in a short period. . . . An exemplary case changed my thinking and gave me a more optimistic outlook on the power of the individual to overcome his difficulties:

The patient was a medical aid man suffering from an acute battle fatigue syndrome as a result of the shock he experienced at seeing four traumatic amputations on his first patrol. Despite rest and medication, the patient remained quite fearful of returning to the field and also suffered from recurring nightmares of the initial shock. However, within three days he recovered a genuine desire to return to duty. Because he was convinced that it was the only way to rid himself of these nightmares, and also to prove to himself that he would be able to function effectively in the field, he became motivated to place himself in the same situation which caused his breakdown. He then had a genuine desire to return to duty. He was hospitalized only three days.[1(p64)]

he sought to have soldiers that he felt were no longer capable of performing under fire assigned to noncombat duty, he was overridden by command; ultimately he concluded that he had inadvertently prolonged these soldiers' disability by being protective.

> . . . [W]e found that many cases [for whom we recommended noncombat duty] were actually quite effective in combat upon their return . . . , and that the battalion surgeon and unit commanders were in a much better position to make an objective judgment. . . . As our experience grew, we began to find that our direct intercessions only served to crystallize the neurotic symptoms in these soldiers [such that] they continued to remain relatively ineffective.[32(p675)]

Otherwise it was difficult to confirm the treatment outcomes of other division psychiatrists for combat stress casualties because their reports of generally high return to duty rates and low evacuation rates included other types of psychiatric disorders.

The impression of generally successful treatment of combat reaction casualties by the 2nd echelon/division

EXHIBIT 7-3. Counseling the Soldier With Combat Stress Symptoms in Vietnam, continued

CASES WITH FUNCTIONAL SOMATIC SYMPTOMS

A big obstacle in handling psychosomatic cases in Vietnam is the patient's tendency to prolong his symptoms, consciously or unconsciously, since these symptoms are keeping him in a relatively safe area. This is not to downgrade the individual since it is entirely natural behavior to want to preserve one's security. The patient's ambivalent feelings about any alleviation of symptoms impairs his motivation toward recovery. Motivation must be maximized to effect recovery of psychological symptoms.[1(p66)]

[These were] undoubtedly the most perplexing cases. They are referred from the various hospitals and clinics who have ruled out an organic etiology and indicated a functional basis. Two poignant problems are encountered in these cases.

1. [T]he soldier has been out of combat for an extended period in order to take all the necessary examinations and has now lost his commitment to his field unit. He resists return to duty.
2. Even more of an obstacle to therapy is his impression that his somatic complaints are the result of his nervous condition and therefore that he has a medical malfunction. He confidently assumes that the mental hygiene specialist will recognize this and will provide a solution or 'magic cure' for his complaint. Therapy would be greatly facilitated by the patient's prior realization that mental hygiene can ferret out the causes only through his cooperation and desire to get well. I think the medical doctor referring him should present the patient with a basic understanding of his problem and not extend to him just another source to which he can be referred.[1(p65)]

COUNSELING THE FIELD SOLDIER

How do you prepare a soldier to return to the field? This can be a very difficult session. The pervading atmosphere of such a session should be constantly aimed in one direction: The patient is to return to duty. He must realize this will be his ultimate destination and although much resistance is met the technician should not permit the discussion to become argumentative. He must continue to delve into the patient's feelings until the patient himself has ventilated all his superficial emotions and begins to realize and plan his return to his unit. At this point the technician has certain elements he may stress to reassure the patient. By pointing out that he has functioned previously in a combat unit, the technician can make him aware that he is capable of functioning again. The man himself will tend to underrate his own abilities and his inner and acquired capabilities. The technician must also impress upon him that the situation will not be as traumatic as [he] is imagining it to be since in most cases the human organism will adapt to the environment it finds itself in. Probably the most vital commitment played upon is the individual's peer group. When the patient begins to concentrate on thinking [about his buddies], he coordinates and cooperates with combat and turns away from his own egoistic strivings; he will create a feeling of security and confidence within himself which is really an outgrowth of the past emotional ties established within his unit.[1(p65)]

PREPARING THE UNIT FOR A SOLDIER'S RETURN

The technician should follow-up each patient restored to duty by a visit to his unit. At this time the technician must explain to the patient's superiors why he developed combat exhaustion, that he is now fit for duty, and impress upon them that this man is best used in the capacity in which he had functioned previously and in the same peer group if it was a favorable one. The preemptory impression to be left with his unit is that this man's condition was not too different from a combat wound in that he has been treated and is now ready for duty.[1(p65)]

SOLDIERS UNSUITABLE FOR COMBAT DUTY

In some combat exhaustion cases the individual personality involved may not be [suited] for field duty. In this instance it is not just a non-battle casualty precipitated by long fatigue or one traumatic event but it is the result of a basic character disorder in the patient. In such cases the technician must candidly inform the unit of the man's capabilities and potentialities for further duty in a most candid appraisal so that the unit may exercise appropriate administration and leadership.[1(p66)]

Reference: (1) Bender PA. Social work specialists at the line battalion. *USARV Med Bull.* 1968;May/June:60–69.

mental health personnel was verified by Johnson, who noted the high rates of return to combat duty and low rates of evacuation by the division psychiatrists in Vietnam through the first couple of years of the war:

> When they have reached the division [psychiatrist], he takes care of them for 2 to 5 days in the medical battalion back at his headquarters, and then he returns them to duty. Very rarely are they evacuated as far back as the [neuropsychiatric KO team] at Long Binh, although there have been a few.[33]

Likewise, according to Allerton, Johnson's successor, Parrish, indicated that between mid-1967 and mid-1968, each division had only evacuated an average of four patients per month to the KO teams[38]—a rate that was reassuringly low.

Regarding treatment of the individual soldier at the 2nd echelon of care (the division psychiatric service), Bey provided a vignette demonstrating effective counseling of a combat stress casualty by one of his social work/psychology technicians.[39(p229)]

CASE 7-1: Infantryman With Combat Exhaustion, Anorexia, and Combat Aversion

Identifying Information: Corporal (CPL) Uniform, an infantryman, was evacuated from the field by helicopter to a division clearing station with symptoms of combat exhaustion. At the time his symptoms included anorexia, difficulty concentrating, strong aversion to returning to the field, and especially combat nightmares that resembled his earlier experience of being wounded.

History of present illness: Leading up to his evacuation from the field, he had been recovering from having been wounded while on ambush patrol.

Past history: None provided.

Examination: None provided.

Clinical course: CPL Uniform was "hospitalized" for 24 hours and treated with Thorazine (100 mg QID). In addition he also received counseling by the social work/psychology technician who presented him with the observation that, as his wound had healed, his psychological problems seemed to have increased. He pointed out to CPL Uniform that the dreams were probably his way of gradually working out anxieties about his stressful experience—anxieties that would have immobilized him had he experienced them at the time he was wounded. The psych tech also commented that, just as the infantryman had done the right thing during the crisis and at the end of the dream, he could be assured that he would do the right thing in future times of stress.

Discharge diagnosis: Combat exhaustion.

Disposition: "The soldier went back to the field, and subsequent follow-up from his unit indicates he has been on patrol and is functioning effectively."

Source: Adapted with permission from Bey DR. Division psychiatry in Viet Nam. *Am J Psychiatry*. 1970;127(2):229.

Bostrom, a division psychiatrist, offered an intriguing model for counseling the soldier with combat stress symptoms. He recommended a careful blending of two, seemingly opposing, approaches: (1) the "maternal" one ("be careful—don't take chances—you are more important than anything else in the world") and (2) the "paternal" one ("the battle must be won at any cost—so fight furiously—even into death"). According to Bostrom, the paternal side must always dominate, while the maternal can be included but only at a "nonregressive level." ("We will give you food, drink, and sleep—so that you can keep fighting. . . . I know how you feel, it's a tough war. . . . It takes real men to put up with all this."[30(p6)]) With respect to psychosomatic complaints, he recommended the battalion surgeon see his role as helping soldiers have an easier time "out there fighting," not primarily one of eliminating symptoms (ie, "make the mother work with the father, instead of against him"[30(p7)]).

The following account by Specialist 6th Class (SP6) Dennis L Menard, a social work/psychology technician in the 1st ID (1967–1968), illustrated how environmental manipulation would have been the treatment of choice for some soldiers. The case example suggested that the management of this anxious, "trigger happy" squad leader did not center on a formal psychiatric diagnosis, and that no additional treatment

was provided. Timely advice to command encouraging them to reassign the soldier to a noncombat position apparently served as the primary therapeutic element. However, it must be acknowledged that such a remedy would have to be weighed against the countervailing pressure to maintain combat unit strength.

CASE 7-2: Sergeant With Paranoid Anxiety

Identifying Information: Staff Sergeant (SSGT) Victor is 28 years old, married, and has 11 years of active service and 2 months in Vietnam. He is assigned as an infantry squad leader and was referred by his command for evaluation of his fitness for line duty.

History of present illness: The patient was referred following a series of difficulties. In one incident he fired M-16 rounds at a fellow soldier who had allegedly tried to get a beer out of the patient's refrigerator and threatened him when he objected (for which the patient received Article 15 punishment and was demoted). Also, while on night patrol he became fearful and tried to fire at his own men because he believed they were VC [Viet Cong]. He also attempted to throw a grenade at a fellow soldier who was urinating to the rear of his position. One night at base camp he imagined his bunkmate was a VC and tried to strangle him.

Past history: SSGT Victor was born in the Midwest. He was the youngest of three siblings. When he was 15 his mother died of cancer and his father was robbed and beaten to death, both on the same day. Although his earlier years were described positively, he acknowledged that his father was a heavy drinker who would abuse his mother. He made average grades in school. Following graduation, he enlisted. He served tours in CONUS [continental United States], Germany, and Korea, and his service record was mixed. Over his 11 years in the Army, he received various punishments for minor infractions. In one instance, he received a Summary Court Martial for fighting in the NCO club.

Examination: He presented as alert, attentive, and oriented, but mildly anxious. He also appeared mildly depressed. There was no evidence of a thought disorder, but he did reveal some paranoid ideation. Insight and judgment appeared lacking. The patient explained the incidents for which he was referred as stemming from his extreme fearfulness. He acknowledged that while in the jungle on [patrol], he would become extremely tense and apprehensive, feel "paranoid," and have illusions of VC, and fear his imminent death. As a result he would become unable to function and worried he might accidently harm someone.

Clinical course: Contact was made with his unit cadre and fellow squad members. They acknowledged they were afraid of the patient ("trigger happy") and would avoid going on patrol with him. They observed him to be highly tense and preoccupied with fearful thoughts, believing all movements were hostile.

Final diagnosis: No official diagnosis was provided. The impression included, "Due to the stress of the combat situation, (the patient) is apparently exhibiting many paranoid tendencies that are increasingly causing him to become ineffective as a combat soldier."

Disposition: Upon the advice of the psych tech, command elected to have the patient reassigned to a rear area pending further evaluation by the division psychiatrist who ultimately concurred with this disposition. The patient completed his tour in Vietnam in a noncombat assignment without further incident.

Source: Adapted from Menard DL. The social work specialist in a combat division. *US Army Vietnam Med Bull*. 1968;March/April:49–51.

Finally, although Colbach and Parrish reported that sodium amytal had not been used in Vietnam, Bey and Motis, both division psychiatrists, acknowledged its occasional use for amytal interviews (Figure 7-2). Motis (with West), who served with the 4th ID, described the effective use of a well-trained, well-supervised, social work/psychology technician as a primary therapist in the field treatment of a soldier who had developed combat stress-related conversion symptomatology. The interaction of the soldier's susceptible personality and his combat risks produced a hysterical mutism, and the

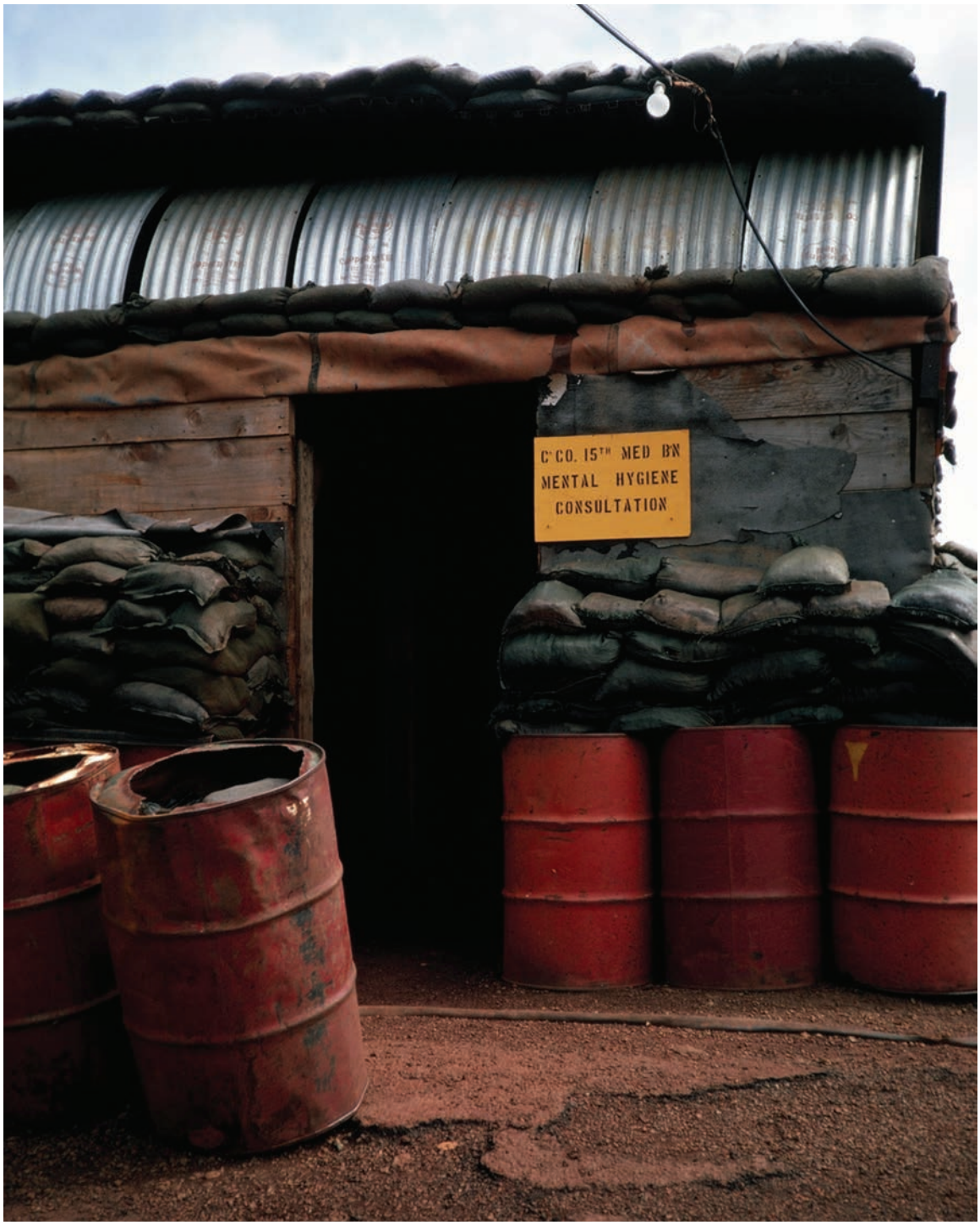


FIGURE 7-2. Brigade-level mental health treatment facility, 1st Cavalry Division, 1970. In Vietnam the US Army advocated a doctrine of psychiatric care for acute casualties among combat troops that included the provision of safety, replenishment, support in assimilating their combat ordeal, and encouragement to soon resume their military function—in some instances utilizing psychotropic medication. This was applied as rapidly as possible and as close to their unit and the fighting as feasible. Enlisted social work/psychology technicians staffed forward mental health treatment facilities such as this one and operated with the support of the battalion surgeons (primary care physicians). Indirect supervision came from the division psychiatrist or social work officer who typically worked out of the division's base camp. Photograph courtesy of Richard D Cameron, Major General, US Army (Retired).

treatment centered on the use of an amytal interview to bypass his symptom. Although the soldier-patient recovered the use of his voice, the account made evident that this was only accomplished because he was allowed a noncombat duty assignment within the division.[36] In fact, Bey indicated that in the 1st ID they were unable to return most of the soldiers to combat duty who had been treated with amytal interviews, even though they gave up the hysterical symptoms with suggestion[40] "The sodium [amobarbital] interviews we did were, for the most part, quite dramatic in terms of the outpouring of emotion by the patients and quick recoveries. However, most cases of conversion reactions in the 1st [ID] were cured by medics and battalion surgeons without any specialized techniques."[40(p189)]

Some mention should also be made of the psychiatrists who served in solo, hospital-based positions, that is, in the field and evacuation hospitals without attached specialized psychiatric units. As described in Chapter 4, these facilities were established to provide inpatient, primarily 2nd echelon medical care, and their catchment population mostly consisted of noncombat support and service-support troops; however, at times these facilities did care for combat troops. As it turned out, among the five Army psychiatrists who provided a record of their experiences with these facilities, only two, Gary L Tischler with the 67th Evacuation Hospital and John A Talbott with the 3rd Field Hospital, mentioned combat stress casualties per se; and neither was specific about treatments provided or outcome.

Psychiatric Specialty Detachment/3rd Echelon Care of Combat Stress Reaction Cases

Chapter 4 presented the structure and staffing of the two neuropsychiatric specialty detachments ("KO teams") deployed in Vietnam as well as summaries of the overviews provided by three psychiatrists who served in these detachments. Only two of them, Bowman ((December 1965–October 1966) and H Spencer Bloch (August 1967–August 1968), referred specifically to the treatment of combat reactions; but even their reports did not distinguish clearly between treatments provided for combat troops as opposed to noncombat troops.

Bowman and the 935th Psychiatric Detachment. According to Bowman, after the 935th had deployed to Vietnam there were relatively few classic, uncomplicated, combat exhaustion cases requiring treatment. The low combat exhaustion referral rate at the 935th Psychiatric Detachment could be partly explained by the fact that it was early in the buildup phase of the war. It also could be because effective treatment was provided at lower echelons of care as previously indicated. Even though Bowman provided an extensive list of seriously disabling symptoms seen among combat-exposed troops at the 935th, these represented fewer than 2% of their referrals. The majority of combat troops were referred for either behavioral disturbances or functional somatic complaints. Bowman made the following observations with regard to the latter:

> The somatic complaints were usually such that they temporarily removed the soldier from the stresses he was experiencing in an honorable way, [in that he avoided receiving] an Article [15] or court-martial. Stress symptoms such as headaches, sleep-walking, dizziness, nausea were frequently presented. Occasionally a soldier was given tranquilizers to help bind his anxiety so that he could return to his previous satisfactory level of performance and functioning.[41(p2)]

Bowman implied that many of the soldiers they treated for combat stress-generated conditions at the 935th Psychiatric Detachment were brought directly in from the field after having bypassed the division clearing stations and the psychiatric personnel there. This was likely because the Army medical and psychiatric care system was still in flux and especially because of the expanding role for heliborne transport. A general description of Bowman's specialized inpatient treatment environment at the 935th Psychiatric Detachment was provided in Chapter 4.

Bowman did not provide clinical examples of their treatment of combat stress reaction cases; however, he included the following general comments pertaining to the specific challenges they faced in treating these casualties:

> The [combat] soldier was allowed to ventilate feelings, especially fear of death or fear of derangement [sic] of his body image. . . . The KO Team personnel would work to the best of their abilities to help the soldier with his problem, but the presenting symptom was rarely considered sufficient reason to evacuate [him] from Viet Nam

> unless, of course, the soldier proved to be frankly psychotic. . . . Occasionally mild sedatives were used, but tranquilizers were seldom prescribed. It was the staff's feeling that tranquilizers would tend to reinforce the soldier's concept of being ill.
>
> . . . After a period of grief, catharsis, or rest we found many of the soldiers ready for duty. In spite of mild to moderate anxiety, the soldiers for the most part did function effectively when returned.[29(pp4–5)]

Still, even at this early point in the war, evidence of the ethical strain associated with the Army treatment doctrine can be seen in Bowman's account.

> Occasionally a soldier asked forthrightly to be relieved from combat because he was 'too nervous.' Some were vehement and demanding, some tearful, some agitated, and some emotionally labile. Too, some pleaded to be given a non-combatant assignment. . . . Indeed it was difficult to return to duty a soldier who had seen considerable combat, or had been wounded, or a soldier who had seen his best friend killed. . . . Frequently the members of the KO Team turned to each other for support when we returned a soldier to duty who may have narrowly escaped death or injury and was now reluctant to go back to combat. Without our own intra-group support a firm policy on evacuation could not have existed.[29(pp4–5)]

Bloch and the 935th Psychiatric Detachment. By the time Bloch (August 1967–July 1968) was assigned to the 935th Psychiatric Detachment, combat intensity in Vietnam had tripled over that of the first year; but as he reported, relatively few patients with combat exhaustion were hospitalized there—a phenomenon he, like Bowman, also attributed to the effective treatment they received at the 1st and 2nd medical care echelons within the divisions. The 935th Psychiatric Detachment did treat the more complicated cases of combat fatigue that were transferred from the division psychiatrists. They also treated fresh casualties flown in directly from the battlefield. Overall, their treatment regimen incorporated the principles of the Army forward treatment doctrine.[42] According to Bloch, the average stay for combat exhaustion cases was 3 days, and 100% of the 34 hospitalized cases over the course of a year were returned to duty (Bloch does not indicate if these soldiers returned to combat duty per se).

However, in contrast to Bowman's conservative philosophy regarding the use of tranquilizing medications, Bloch and his colleagues regularly employed both major and minor tranquilizers for a broad range of psychiatric conditions.[43] In particular, they utilized a protocol of Thorazine-induced narcosis (24–48 hours of sleep treatment—*dauerschlaf*—a term of German derivation that roughly translates into long-lasting sleep but which has been adopted over the years for "sleep therapy") for severely disorganized and uncontrollable patients (114 over a year), not just those with combat exhaustion.[43] (As noted in Chapters 3 and 4, this treatment approach was also used by both division psychiatrists and hospital psychiatrists.) Bloch described the 935th Psychiatric Detachment's *dauerschlaf* protocol as follows:

> The patient was told he would be given medicine which would enable him to sleep for a day or even a little longer after which his condition would be much improved. He was then administered oral or intramuscular doses of Chlorpromazine [Thorazine] every hour until a sound narcosis was achieved and thereafter as necessary when he awoke to maintain sleep. Treatment was initiated and maintained with oral doses of 100–400 mg. or IM doses of 50–100 mg. and occasionally 200 mg. when oral medication was refused. Physical restraints were sometimes used if necessary until sleep was achieved. [Medically monitored] Chlorpromazine narcosis was maintained for 24–48 hours and never longer than 72 hours.[43(p348)]

Bloch took pains to justify their approach as other than just "snowing" objectionable patients or subduing those perceived as dangerous. "[It] capitalizes on the as yet poorly understood psychologically restitutive powers of sleep or [Thorazine]-induced sleep. . . ."[43(p351)] In his experience, this treatment proved to be especially efficient and effective for a cross-section of severely disordered soldiers who, by necessity, had to be hospitalized in an open, crisis-oriented, milieu ward. With regard to acute and transient psychotic stress states, it also seemed to serve diagnostic ends by helping to differentiate (and treat) such conditions in contrast to the less responsive schizophrenias.[43] Case 2-1, SP4 Delta in Chapter 2;

Case 6-1, CPL Foxtrot; Case 6-6, PFC Kilo; Case 6-10, SP4 Oscar; and Case 6-13, PFC Romeo, all in Chapter 6, serve as illustrations. They are suggestive of 2nd echelon care, that is, that that would ordinarily be provided by the division psychiatrists, and all had a rapid, and apparently full, recovery of duty functioning. (Bey and Bostrom, both division psychiatrists, also reported utilizing the *dauerschlaf* method.)

More central to the mission of the 935th Psychiatric Detachment was the provision of more extensive, 3rd echelon, psychiatric care. Bloch indicated that treatments for combat troops in their inpatient unit varied widely, depending on the pathodynamics of each case. However, befitting the highly charged psychosocial context of a military organization involved in combat operations a long way from home, Bloch and his staff favored an interpersonal treatment orientation, that is, toward interventions in the social and military dimensions of the patient's problems (versus one representing an intrapsychic or internalized emotional conflict). The following case is illustrative of a more involved treatment approach at a 3rd echelon care facility.

CASE 7-3: Withdrawn, Noncommunicative Soldier Following the Death of His Platoon Leader and Radio Operator

Identifying information: Private First Class (PFC) Whiskey is a 20-year-old, married infantryman who was evacuated to the 93rd Evacuation Hospital/935th Psychiatric Detachment following 4 days of psychiatric treatment in his division clearing station.

History of present illness: EM [enlisted man] was initially dusted off [transported by helicopter] to the division clearing station after developing bizarre behavior (crying, incoherent, and biting his fingers) immediately following a mine explosion that resulted in the death of his platoon leader and radio operator. It is unclear if he was medicated in the field, but when seen by the division psychiatrist he was mute and stuperous. While at the 25th ID, Thorazine (100 mg. QID) was administered, and, although he "maintained contact with the environment," he remained uncommunicative with some psychomotor retardation. Two Methadrine interviews (intravenous administration of an amphetamine derivative to promote alertness and activity) followed by an Amytal-Methadrine interview (sodium amytal was added for disinhibition) brought forth "considerable abreaction" ("[h]e began to cry and shout out about the deadly mine explosion"), and he spoke of his guilt in not preventing the deaths. He also talked about his wife and the death of their child 6 months previously. However, following the interviews, he again regressed and required transfer to the 935th Psychiatric Detachment.

Past history: None provided.

Examination: Upon arrival at the 935th Psychiatric Detachment, PFC Whiskey was noted to be appropriate and cooperative, but when asked questions, he contorted his face and remained mute. His affect was depressed and anxious.

Clinical course: On the ward he was treated with Thorazine (50 mg TID) and group therapy. Gradually he became more comfortable speaking to individuals, but he remained anxious when expected to speak to the group. Ultimately this abated, and he was able to confide in the group about his traumatic combat experiences. After 3 weeks of hospital care, he was considered fit to return to duty.

Discharge diagnosis: Acute situational maladjustment, severe, improved. Stress: moderate, sight of buddies injured and dying. Predisposition: unknown. Impairment, none.

Disposition: Returned to unit with 10-day supply of Thorazine (50 mg TID).

Source: Narrative Summary, 935th Psychiatric Detachment/93rd Evacuation Hospital.

Still, some combat reaction cases warranted an emphasis on intrapsychic mental dynamics. For example, Bloch presented a case of a young combat soldier with disabling anxiety and suicidal ideation who was not only treated with milieu therapy and nighttime sedation, but he also was given individual, crisis-oriented, supportive/interpretive psychotherapy.[42(pp295–296)]

CASE 7-4: Newly Arrived Soldier With Neurotic Anxiety and Suicidality

Identifying Information: Private (PVT) X-ray was a 20-year-old artillery observer, who had 6 months of Army service but only 1 week in Vietnam. He was transferred to the 93rd Evacuation Hospital/935th Psychiatric Detachment after spending a night at the division clearing station for anxiety reaction.

History of present illness: He indicated that he had always been anxious, but this had become worse after he joined the Army and received his assignment to Vietnam. He additionally complained of recently developing phobic symptoms along with obsessional thoughts and nightmares in which his mother, his fiancé, and his brother died violently. These worries made his separation from them seem unbearable and led him to suicidal thinking.

Past history: PVT X-ray was the middle child raised by a nervous and histrionic mother and a much-loved stepfather. At age 13 his stepfather suffered an accidental death, followed by his mother slashing her wrists. These events resulted in the patient harboring strong feelings of guilt and led him to become "a model, compliant lad" who could never experience anger, only "nervousness." The patient also reported that, as he prepared for his assignment in Vietnam, his mother began to behave in a fashion similar to when she went "out of her mind" following the death of his stepfather.

Examination: He initially presented at the 93rd Evacuation Hospital as tremulous, hyperventilating, rocking, tearful, and uncommunicative. However, in response to "a firm approach," the patient soon calmed and became cooperative with the hospitalization and treatment.

Clinical course: The patient was "worked with intensively in the ward milieu" and given occasional sleeping medication. He was also provided individual psychotherapy that centered on a supportive interpretation of his pre-Vietnam psychic conflicts (". . . that his concerns were like those of the phobic patient with separation anxiety who could not let persons toward whom he felt much unconscious rage out of his sight for fear that they would die because of his own hostile impulses"), which had become heightened by anxieties associated with being new to combat. After a couple of days of this combined treatment approach, his social isolation began to abate, he became responsive to the milieu, and he reported that his anxiety had modulated and his sleeping had improved. He returned to duty on day 4.

Discharge Diagnosis: Anxiety reaction.

Disposition: Returned to duty with follow-up reevaluation arranged with the division psychiatrist.

Source: Adapted with permission from Bloch HS. Army clinical psychiatry in the combat zone: 1967–1968. *Am J Psychiatry*. 1969;126(3):295–296.

Finally, Bloch noted that some combat reaction cases were especially difficult in that they presented with extremely protean clinical findings, which required active collaboration between the psychiatrists operating in the field and those in the specialty unit. Not only might a patient's symptoms worsen when he was closer to combat risks, but also, as has been discussed, important differences in psychiatrist values and priorities may derive from these differing professional contexts. By way of illustration, see Case #4 in Bloch's paper[44(p8)] (provided in Appendix 12, "Some Interesting Reaction Types Encountered in a War Zone").

Preventive Psychiatry and Combat Stress

All clinical activities of Army psychiatrists have been conceptualized as falling into three functional levels of prevention: "primary prevention" (ie, minimization of psychiatric conditions through advice to military leaders regarding morale and stress reduction—true prevention); "secondary prevention" (ie, early detection and intervention to minimize symptoms for individual soldiers); and "tertiary prevention" (ie, the treatment of affected soldiers who require removal from duty status, as in hospitalized). With regard to primary prevention, except for Bey with the 1st ID (April 1969–April 1970),[45] there is little published evidence that Army psychiatrists in Vietnam were able to influence commanders regarding stress-inducing factors affecting combat units. On the other hand, there also is no evidence that the commanders were accessible for

TABLE 7-2. Estimated Percent of Combat Stress Reaction (CSR) Cases Treated Among the Three Army Medical Care Echelons in Vietnam in 1967 Compared With the Korean War

Army Medical Care Echelons	Reported Treatment Provided in Korea*	Estimated Treatment Provided in Vietnam (1967)†
1st echelon care of CSR cases: Treatment provided by nonspecialized battalion surgeons and medics (at battalion aid stations, dispensaries)	80%	63%[1]
2nd echelon care of CSR cases: Treatment provided by division psychiatrists and allied psychiatric personnel (at division clearing companies)	15%	22%[2]
3rd echelon care of CSR cases: Treatment provided at evacuation or field hospitals and psychiatric specialty detachments ("KO" teams)	5%	15%[3]

Data source:
*Cooke ET. *Another Look at Combat Exhaustion*. Fort Sam Houston, Tex: Department of Neuropsychiatry, Medical Field Service School; distributed July 1967. Training Document GR 51-400-320, 055.

†Percentages in this column are derived from the estimated combat stress reaction (CSR) incidence rates for 1967 presented in Table 6-2 in this volume (all rates are /1,000 troops/year).

1. CSR incidence rate for this echelon [3.8] divided by the total CSR incidence rate for all echelons [6].
2. CSR incidence rate for this echelon [1.3] divided by the total CSR incidence rate for all echelons [6].
3. CSR incidence rate for this echelon [0.89] divided by the total CSR incidence rate for all echelons [6].

primary prevention interventions, or that the assigned psychiatrists believed they possessed the requisite expertise. There is, however, ample documentation of secondary and tertiary prevention activities on the part of the division psychiatrists and their staffs, as in establishing a liaison between the symptomatic soldier and his unit cadre to minimize disability, or in the treatment of disabled soldiers. Chapter 10 provides a broader review of command consultation in Vietnam.

Estimating Treatment Outcomes for Combat Stress Cases in Vietnam

In their medical officer's basic training newly commissioned Army physicians bound for Vietnam were taught that, based on experiences in Korea, primary care physicians could expect to effectively treat four combat stress reaction cases for every one that required referral on to the division psychiatrist; and for every three cases effectively treated by the division psychiatrist and his staff and returned to duty, one would require evacuation out of the division and on to a neuropsychiatry specialty center in Vietnam.[20] Unfortunately the Army's failure to define and track combat stress reaction cases in Vietnam made it impossible to realistically compare the Vietnam experience with that in Korea.

However, CSR treatment outcomes in Vietnam can be surmised from the estimate of the combat stress reaction (CSR) incidence, at least for 1967, presented in Table 6-2, which drew from findings from the Datel and Johnson survey of outpatient psychotropic drug prescription patterns in 1967 in Vietnam[46] and Bourne's 1966 study of US Army psychiatric hospitalization rates in the theater.[47] Table 7-2 presents the proportions of CSR cases treated at the three medical echelons in Vietnam compared to Korea. As the second column indicates, by these measures it can be roughly estimated that primary care physicians and other nonspecialized personnel in Vietnam effectively treated only two combat reaction cases for every one referred on to the division psychiatrists. In turn, division psychiatrists effectively treated only three cases for every two referred on to the psychiatric specialty centers (KO teams) in Vietnam. These figures suggest that the care provided within the combat divisions in Vietnam (ie, 1st echelon treatment success by nonspecialists and 2nd echelon treatment success by division psychiatrists) effectively treated only 85% of combat exhaustion cases, versus 95% for Korea. In other words, the treatment success rate for combat stress reaction cases within the combat divisions in Vietnam (at least for 1967), that is, cases

not requiring evacuation to the two KO teams for more extensive, 3rd echelon, specialized treatment, appears to be lower, or at least the evacuation rate was higher, than was the case in Korea. However, apart from the extremes to which the data have been stretched, a conclusion of lower treatment effectiveness in Vietnam is arguable if one takes into account that TM 8-244, *Military Psychiatry,* suggested that only 60% of combat reaction cases in Korea were successfully treated by 1st echelon, nonspecialized personnel[3] (vs Cooke's 80% in the first column in Table 7-2). Furthermore, the Datel and Johnson survey found that primary care physicians reported treating four combat fatigue cases for every one treated by psychiatrists.

Also, regarding 3rd echelon care, the 3 times higher figure for Vietnam over Korea noted in Table 7-2 (ie, 15% vs 5%) could be misleading because the source of the estimate for Vietnam, that is, Bourne's study, was conducted during the first year of the war—early in the development of the Army's medical care delivery system. However, if, in fact, a greater proportion of combat reaction cases was treated by the KO teams in Vietnam compared to Korea, this could be explained simply by the ubiquity of helicopter medical transport. In Vietnam, evacuation and field hospitals commonly received direct admissions of casualties from the battlefield, including psychiatric casualties.[48] It also may represent the fact that the KO teams were often required to provide 2nd echelon care for the four independent combat brigades fighting in Vietnam that had no assigned psychiatrists.

As for measures of success for combat reaction treatment at the psychiatric specialty detachments (KO) in Vietnam, the data are scant. In his summation of the first half of the war, Allerton indicated that the two KO teams had contributed to the "lowest [out of the combat zone] evacuation rate for psychiatric reasons in the history of the Army Medical Service."[23(p7)] To this end he partly credited their role as evacuation choke points in that they held the final authority for psychiatric patients exiting Vietnam.[23] However, Allerton was referring to all psychiatric conditions, not just combat stress reactions. Also, recall from Chapter 6 that numbers of combat stress cases evacuated to Travis Air Force Base in California during the first half of 1967 were negligible, and there were very small numbers of cases with a diagnosis of traumatic neurosis evacuated through Clark Air Force Base in the Philippines early in the war.

Finally, in March 1969, almost 2 years after Johnson collected his survey data, BH Balser, a civilian psychiatrist who was a consultant to the US Army, visited all echelons of Army psychiatric care in Vietnam, beginning with the 1st echelon medical care of four combat divisions. There he noted how the basic cathartic care of the "emotionally disturbed and upset soldier" was provided primarily by trained mental health technicians under supervision of the battalion's physician, who, at times, prescribed augmenting neuroleptic or anxiolytic tranquilizer medications. He described this care as extremely effective, returning 80% of affected soldiers back to their units and to combat duty. According to Balser, intractable cases passed through increasingly sophisticated treatment areas so that those who required evacuation to Japan were, with few exceptions, seriously ill.[49]

In conclusion, using the best information available it appears that effective treatments, as well as conservative evacuation policies, were implemented in Vietnam. Among various implications, these data especially appear to generally validate the combat psychiatry doctrine as serving force maintenance under the conditions found there. They also underscore the value of familiarizing the primary care physicians in the doctrine's principles. On the other hand, the data do not necessarily make the case for broader or more effective use of the newer psychiatric medications, even if anecdotal reports suggest that it was so.

Mixed Reviews on the Use of Psychoactive Medications for Combat Reaction Cases in Vietnam

The availability of recently discovered neuroleptics, anxiolytics, and tricyclics in the Vietnam theater represented powerful new tools in the armamentarium of combat psychiatrists. From material already presented it is evident that the new tranquilizers were commonly prescribed by psychiatrists and primary care physicians and had displaced the sedatives from the Korean War era in the treatment of a wide variety of conditions, including those affecting combat-exposed troops. Yet officially, at least early in the war, the role of pharmacotherapy was debatable. Allerton summarized the Army's Vietnam experience through mid-1968 as:

> [Although] phenothiazines have often been used where barbiturates previously might have been [in World War II and Korea], it has been observed that fewer drugs of any type are being used by psychiatrists in their combat psychiatric experiences

> in Vietnam. . . . Evidence tends to show that the temporary removal from [combat exposure] coupled with the fostering of an expectation of early return to duty is a much more meaningful part of the therapeutic regime than any of the drugs (barbiturate or tranquilizers) that have been or are being used.[23(pp13–14)]

Unfortunately, Allerton supplied no data to support this conclusion. However, it did coincide with the impression held by Peter G Bourne, an Army research psychiatrist, who reported from the field from the first year of the war that these medications had a "relatively slight impact" in prevention and treatment of psychiatric conditions.[50] However, this was contradicted by Johnson who was the USARV Psychiatry Consultant in the second year of the war and the principal investigator in the Datel and Johnson survey.[46] "It may very well be that the use of tranquilizing medications is one of the most important factors in keeping the psychiatric rates in Vietnam at a low level."[51(p339)]

More specific to the combat soldier, in their summary of the first 4 years of Army medical experience in Vietnam, Colbach, who had served as an Army hospital psychiatrist there (November 1968–November 1969), and Parrish, who had been the USARV Psychiatry Consultant during the third year of the war, commented that

> [t]his is the first war in which the new phenothiazines have been available, and they have been widely used in all kinds of conditions. They have been safely used to control excessive anxieties in combat infantrymen without any apparent interference in duty performance.[14(p340)]

Navy physicians similarly advocated prescribing major tranquilizers for Marine combat stress casualties.[52,53] For example, Strange and Arthur reported broad use of Thorazine ("very heavy doses"), along with nighttime sodium amobarbital, for acute combat syndromes.[54]

But the possible dangers in prescribing psychotropics for combat troops in Vietnam were not entirely overlooked. In a pained postscript after the war, Colbach offered a more confused perspective on the use of these medications in Vietnam:

> . . . [In Vietnam] we did not like to use the minor tranquilizers and barbiturates and related compounds because of their abuse potential. We rarely used anti-depressant medication. Our main psychotropic weapons were the major tranquilizers, primarily the phenothiazines. We used these not only for the psychoses but for all kinds of anxiety and psychosomatic states. Many soldiers went into the field with Thorazine or Mellaril in their pockets. Among ourselves we debated whether this was really a good idea. Obviously the medication made people less alert. At the same time, though, excessive anxiety could be very harmful to functioning also. Again it was a balancing act, trying to weigh the benefits of medication against its drawbacks. In civilian life there are all kinds of cautions about what a person on psychotropic medication can and cannot do. . . . Yet in Vietnam risks of the sort were regularly taken. Our job was to keep the Army functioning.[55(p261)]

Also, regarding potential adverse long-term consequences, Holloway conjectured that for some veterans, taking psychotropic medications in Vietnam might have contributed to postwar adjustment problems if the drug disrupted critical cognitive functions to the effect that they "could not achieve an integration of their overseas and combat experience."[56] In fact, concerns for both short- and long-term effects from the use of these medications were consistent with a larger set of ethical questions regarding the military psychiatry treatment doctrine in Vietnam that were raised as the war progressed and after its conclusion.[5]

Many years after the war, as if to quell contentions that psychotropics were injudiciously prescribed in Vietnam, Franklin Del Jones, former division psychiatrist there and distinguished historian of military psychiatry, offered the following regarding the use of such medications for combat troops (but without referring to Vietnam per se or his experience serving there):

> . . . All drugs are potentially double-edged swords. All will have side effects and overdose effects. Some may produce additional effects upon withdrawal or elimination of the drug. Some interact dangerously with environmental factors, diet, other drugs, or specific diseases. All drugs may have idiosyncratic effects on some individuals. It is unwise to dispense any drug lightly, without first evaluating the recipients and briefing them (and their support group) on what to expect and what

> to be alert for. It is then wise and ethical to follow them up periodically. For these reasons, any use of pharmacologic agents should be kept under appropriate medical supervision if not necessarily medical control.
>
> . . . After analysis of the risks, some drugs may be judged safe enough for "over the counter," self-administered use. Other drugs may be judged safe for routine prescription use with periodic followup. Other drugs still may be so risky that they should be prescribed only in urgent, carefully defined situations.[25(pp124–125)]
>
> . . . [Finally,] the neuromuscular, autonomic nervous system, and cognitive impairments produced by [Thorazine] make it a particularly questionable choice on the battlefield.[25(p126)]

Missing Information Regarding Combat Stress Treatment in Vietnam

The foregoing observations regarding the management and treatment of combat stress-related conditions in Vietnam essentially came from the first half of the war. The only documentation of the character of combat reactions in the theater during the second half came from Larry E Alessi's communiqué to the battalion surgeons of the 23rd Infantry Division (Americal) (see Appendix 9, "Principles of Military Combat Psychiatry"). As Alessi indicated, burgeoning psychophysiologic reactions and "non-psychiatric emotional problems," including anxiety, fear of the field, and refusal to go to the field, were the dominant patterns seen among the division's combat troops in the fall of 1970 despite the dropping combat intensity. Evidently combat stress was still a factor for some. He advised battalion surgeons to regard them as having natural aversion to combat risks and to manage greater numbers at the battalion aid stations though the use of reassurance, peer support, and firm opposition to claims of psychiatric impairment—along with judicious use of Mellaril. If nothing else, it is startling that Alessi found it necessary to reiterate the need for battalion surgeons to oppose default by combat soldiers and that he recommended the neuroleptic Mellaril for this purpose. (For use with outpatients, Mellaril was apparently preferred because it was less sedating compared to Thorazine, the other widely available neuroleptic.)

Also, the material in this section on psychiatric treatments for combat-exposed troops in Vietnam has been rather exclusively centered on symptomatic disorders. There were many other soldiers in Vietnam who exhibited behavior and discipline problems, including drug and alcohol abuse, in response to excessive combat stress—problems that were not generally considered to be exclusively medical/psychiatric ones but instead expressive of low morale or faulty attitudes. As such, these soldiers would have primarily been the responsibility of their military leaders, who may have resorted to various judicial and nonjudicial punishments or recommended that they be administratively discharged from the Army. The psychiatric literature from Vietnam did not systematically address any treatments for these problems. It did, however, indicate that large numbers of such soldiers were referred for a psychiatric evaluation, many of whom received a diagnosis of character and behavior disorder (ie, personality disorder[57]). This may have constituted a remedy, if not a treatment per se, in permitting them to receive an expeditious separation from the Army through a less punitive type of discharge. According to John A Renner Jr, the Navy psychiatrist who treated Marines there in 1969, these were the "hidden casualties" of Vietnam.[58]

Byrdy, with the 1st Cav, offered this observation from the first year of the war that alluded to the awkward line between behavior and discipline problems and evident psychiatric disorders:

> By and large, COs [commanding officers] and XOs [executive officers] were very glad and relieved to discuss patients. . . . They saw the psychiatrist as functioning in a capacity mostly to rid them of problems at hand in a manner, I'm sure, no different from any other operating division. These problems usually involved someone who was disturbed or someone against whom it was hoped that a characterological case could be built because administrative grounds for action were lacking. In a combat situation one certainly becomes sympathetic with their wishes to be relieved of troublesome personnel. However, there were many cases in which they wanted the psychiatrist to be simply the "hatchet man."[59(p50)]

Byrdy also noted that:

> Familiarization with the situation in the field brings the realization that the kinds of referrals depend on the tactical situation. [For example,] homosexuals

and discipline problems are rarely referred in from units which are under engagement.[60(p4)]

Distinctions between diagnosable psychiatric conditions and misconduct/behavior/discipline problems in general will be explored in Chapter 8.

RESEARCH AND ANALYSIS

Although there was very little systematic research into the patterns of care and outcomes for combat stress conditions in Vietnam, two studies warrant special attention: (1) the 1967 survey of psychoactive medication prescriptions for soldiers (outpatients) by Datel and Johnson, and (2) the postwar epidemiologic review of the Marine casualty data by Palinkas and Coben.

The Datel and Johnson Survey of Patterns of Outpatient Psychotropic Pharmacotherapy for US Army Troops in Vietnam

The survey of psychotropic drug-prescribing patterns of Army physicians in Vietnam, including psychiatrists, which was mentioned in Chapter 6, was not limited to combat-exposed troops; nevertheless, it serves as the sole source for epidemiologic data regarding the psychiatric disability secondary to "combat fatigue" in the theater. It also provides the only data regarding the dominant patterns of pharmacologic treatment of combat fatigue, at least among outpatients.[46]

Description of the Study

In July 1967, as combat intensity in Vietnam was nearing its peak, Johnson, senior Army psychiatrist in Vietnam (the USARV Psychiatry Consultant), surveyed Army primary care physicians and psychiatrists in Vietnam regarding the psychotropic drugs they had prescribed for outpatients during the previous month. The primary care physician target group (233) consisted of all Army physicians in Vietnam who were serving in 1st echelon medical roles, for example, as battalion surgeons in combat units, or in dispensaries providing care for support and service-support troops. These physicians had undergone a range of general and specialized medical training before assignment in Vietnam. The psychiatrist target group consisted of all Army psychiatrists assigned in Vietnam (21). It also included two Navy psychiatrists who were providing specialized care for Marine combat divisions because their role was analogous to the Army division psychiatrists. One-hundred and ten (47%) primary care physicians and eight (35%) psychiatrists participated in the study.

Selected Study Findings

There were many important findings from this survey that pertained generally to treatment of stress in the Vietnam combat zone in mid-1967. For instance, the overall outpatient psychotropic drug prescription rate for Army troops treated by the two respondent groups was 126 per 1,000 troops year (ie, one of every eight soldiers assigned in Vietnam). However, when the prescriptions written for Compazine (for "gastroenteritis") and Serpasil (for hypertension) are removed from the analysis—medications not utilized primarily as psychotropic agents—the psychotropic prescription rate drops to 86.4 per 1,000 troops per year (ie, one of every 11.5 soldiers assigned in Vietnam). The most frequently treated psychiatric condition was anxiety, which was mostly treated with minor tranquilizers (ie, anxiolytic medications: Equanil/Miltown, Librium, Valium, Vistaril, and Atarax). Insomnia was next in frequency, treated with sedatives/hypnotics. At the other extreme, depression was surprisingly low in frequency. (Selected survey findings not exclusively pertaining to combat fatigue will be presented in more detail in Chapter 8.)

Combat fatigue, which was not defined in the study, was regarded as a subgroup of the anxiety category and accounted for 56 (12%) of the 464 cases of anxiety treated between the two groups of respondents during the month of the study. Notably, primary care physicians treated 44 (79%) of them. The pharmacologic agents preferred by both psychiatrists and primary care physicians for treatment of this condition were the major tranquilizers, primarily Thorazine (Mellaril and Stelazine were also available); 64% of combat fatigue cases were treated with this family of medications. The daily dosages of Thorazine ranged from 20 mg to 300 mg—usually limited to a 3-day period, but six cases were treated on a "take as needed" basis. Minor tranquilizers were next in preference for combat fatigue, but no information was provided on the percent of combat fatigue cases receiving these medications. The most commonly prescribed was Librium, with the daily dose ranging from 30 mg to 40 mg. The typical

EXHIBIT 7-4. Use of Pharmaceuticals to Bolster Combat Performance

During the Vietnam War, the growing popularity of the new tranquilizing drugs for the reduction of combat stress symptoms ultimately provoked interest in the prophylactic use of those and other psychoactive compounds under combat circumstances—the so-called brave pill. But should the pharmacologic reduction of hyperarousal in anticipation of enemy contact, or even in response to it, be regarded as a compromise of medical ethics? For the military physician in the field, the boundary between prescribing a drug for clinical purposes versus for the enhancement of soldier performance in battle is not easily determined. Franklin Del Jones, a senior Army psychiatrist, provided the following commentary regarding these challenges in his 1995 chapter, "Psychiatric Principles of Future Warfare," in *War Psychiatry*.

> If a drug can help [soldiers] sustain unit cohesion, good training, and good sense in the face of otherwise overwhelming fatigue or arousal, with an acceptable risk of other harmful effects, is it ethical to withhold it? Undoubtedly alcohol was the first drug [in modern times] to be utilized for such purposes. When Holland became a major source of gin, the widespread use of this alcoholic beverage by soldiers led to the expression "Dutch courage" to express the desired effect. [However] the ancient Assyrians, Egyptians, and Greeks reportedly utilized opiates before and during battles to sustain or enhance bravery and courage.[1]

Edmund G Howe and Jones, in their 1994 chapter, "Ethical Issues in Combat Psychiatry," in *Military Psychiatry: Preparing in Peace for War,* also noted that

> . . . Vikings of the first millennium often fought after being intoxicated on mead (beer made from honey), and during the middle ages, armies often went into battle intoxicated. As late as World War II, Japanese troops sometimes prepared themselves for final, desperate banzai charges with saki. A medieval Moslem sect gave the word "assassin" to the English language because of its members' use of hashish (they were called "hashishim") before they were sent to kill their leader's critics. Like alcohol, cannabis can seriously impair combat performance, and it is unclear whether the hashishim were still "stoned" as they committed the assassinations or just convinced that they had experienced, briefly, the paradise that was to be their eternal reward.[2]

prescription length for Librium for combat fatigue was 2 or 3 days, and it was not prescribed on a "take as needed" basis. Primary care physicians were generally more satisfied regarding treatment outcome; they rated the result on 75% of their combat fatigue treatments as excellent/good, 22% as fair/satisfactory, and only 3% as no improvement. In contrast, the psychiatrists rated treatment outcome only 25% as excellent/good and 75% as fair/satisfactory. Some of this difference would be expected because the psychiatric specialists should be treating the more difficult cases.

Study Conclusions

Among its many findings, the study indicated that primary care physicians served a major role in the first line of defense against psychological breakdown of combat troops (they reported treating four combat fatigue cases for every one treated by psychiatrists, which mirrored the Korean War estimate in Table 7-2), and that pharmacotherapy was perceived as very effective (97% received at least satisfactory improvement designation). More generally, neuroleptic and anxiolytic medications, which were prescribed by both groups, appeared to be instrumental in soldier recovery and return-to-duty function.

However, some survey results led Datel and Johnson to a peculiar conclusion: whereas they reported that "across condition and across drug, the prescribing physicians were of the opinion that psychotropic drug treatment was by and large quite influential in reducing the problems,"[46(p10)] in a separate publication Johnson acknowledged that the study demonstrated that much of the prescribing of psychoactive drugs was unwitting as these medications were frequently prescribed "for apparently emotional conditions even when this was not immediately obvious to the patient *or the physician* [emphasis added]."[51(p339)] He was especially referring to the finding that Compazine, a phenothiazine neuroleptic that accounted for 45% of all psychotropic prescriptions written by the primary care physicians, was for reported gastrointestinal irritability, which Johnson assumed was generated in large part by combat and deployment

EXHIBIT 7-4. Use of Pharmaceuticals to Bolster Combat Performance, continued

Jones discussed this further, noting that:

> . . . Other drugs studied or used to enhance combat performance include ergot alkaloids, cannabis, amphetamine and other stimulants; Dramamine and other antihistamines; benzodiazepines; and L-tryptophan. It is the author's contention that the most extensive modern use of performance enhancing drugs occurred among Soviet personnel during World War II shortly after amphetamine was synthesized. Amphetamine was useful not only to stave off fatigue and drowsiness but also to improve memory and concentration, particularly among Soviet pilots.
>
> During the Vietnam conflict, methylphenidate (Ritalin) and sometimes dextroamphetamine (Dexedrine) were standard issue drugs carried by long-range reconnaissance patrol (LRRP) soldiers. The LRRPs found the most efficacious use to be upon completion of a mission when fatigue had developed and rapid return to the base camp was desirable. Other than mild rebound depression and fatigue after the drug was discontinued, no adverse effects were reported. Other investigators studying the drug abuse problem later in the Vietnam conflict reported problems with abuse of these stimulants. Although there was no documented abuse of the morphine syrettes, commanders suggested such abuse might be occurring, causing them to be withdrawn from the soldiers.
>
> Sedatives have also been studied as a method to improve performance in anxiety-producing situations such as paratroopers making low-altitude jumps or for reducing the emotional tension of young soldiers during the firing of guns. Reports of improved target accuracy through use of the ß adrenergic blocker, propranolol, and the anxiolytic, diazepam (Valium), have resulted in a US Army ban on use of these drugs by soldiers engaged in marksmanship competition because they would confer an unfair advantage.
>
> [On the side of psychopharmacology for therapeutic use] the most consistent symptom of combat stress, whether occurring early in exposure to combat or after cumulative exposure, is anxiety. Such anxiety may be manifested by [excessive] fear, hysterical conversion or dissociation, tremors, and similar symptoms. In the past, these conditions have been treated with sedatives ranging from chloral hydrate and bromides in World War I to barbiturates in World War II and even self-prescribed alcohol, cannabis, and heroin in Vietnam. These drugs often not only produced unwanted sedation but also decreased the probability of return to combat due to the fixation of a sickness role suggested by taking medication. In the Vietnam conflict, neuroleptics (antipsychotic or major tranquilizer drugs) were widely utilized for psychotropic effects, but benzodiazepines were also used. But are such drugs safe, especially in the highly unpredictable and unstable physical, logistical, and emotional context of combat?[1]

REFERENCES

1. Jones FD. Psychiatric principles of future warfare. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: Zajtchuk R, Bellamy RF, eds. *Textbooks of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, Borden Institute; 1995: 125–126.
2. Howe EG, Jones FD. Ethical issues in combat psychiatry. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, eds. *Military Psychiatry: Preparing in Peace for War*. In: Zajtchuk R, Bellamy RF, eds. *Textbooks of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, Borden Institute; 1994: 121.

stress.[51] In other words, by these measures many soldiers were affected by combat stress- and combat theater-generated psychophysiologic disorders, but the specific nature of their difficulties remained obscure to the clinicians. Although the investigators failed to distinguish between combat and noncombat troops (this obviously was not a problem in the analysis of the data regarding combat exhaustion), their findings appear to bolster the speculation that there may have been large numbers of combat-exposed troops in Vietnam who sustained unrecognized, low-grade, psychiatric and psychosomatic symptoms (ie, suggesting partial trauma or strain trauma).

Study Limitations

Although Datel and Johnson acknowledged that their study had many shortcomings, their findings are the best data available in confirming the overall popularity of the new psychotropic medications for the outpatient treatment of various psychiatric and related conditions in the Vietnam theater, including combat-generated ones. In addition to its failure to include an operational definition of combat fatigue, the study's other limitations included that: (*a*) although it was limited to outpatient care, it did not distinguish whether soldier-patients were kept at duty during their treatment; (*b*) no data were collected that addressed the

presence, if not the relative value, of other treatment elements; and especially important, (*c*) no attempt was made to monitor the effects of these medications on duty performance, especially performance in combat. It is possible that combat performance was enhanced (Exhibit 7-4). It is also possible that combat performance was diminished through slowed reaction times, reduced concentration, or interference with marksmanship.

The Palinkas and Coben Study Correlating Psychiatric Hospitalization and Wounding Among Marines

Regarding the possibility that some psychoactive medications may have reduced combat performance in Vietnam, the postwar study conducted by Palinkas and Coben is intriguing because it suggested that psychiatric treatment, at least hospital treatment there, could have compromised combat performance for some diagnoses. Although the study involved US Marines, it could have implications for Army troops because of their similar missions.

Palinkas and Coben explored the association between hospitalization rates for injury or wounding in action (N = 78,756) and hospitalization rates for psychiatric reasons (N = 8,835) among Marines deployed over the course of the war (1965–1972). Among those who were wounded in action, 2,369 (3%) also had a record of psychiatric hospitalization; furthermore, psychiatric hospitalization was significantly associated with an increased risk of becoming wounded. The wounding incident most often followed the psychiatric hospitalization and tended to occur within the subsequent 4 months. The sole demographic/service characteristic that distinguished those hospitalized for psychiatric reasons from other wounded Marines was that a greater proportion came from the lowest military ranks. Among the psychiatric hospitalization group, the increased risk for wounding was primarily among those diagnosed with social maladjustment, psychosomatic conditions, "nervous and debility," transient situational disturbance, and acute situational maladjustment.

In contrast, the risk of becoming wounded was lower for those with diagnoses of schizophrenia, anxiety neurosis, and depressive neurosis, but this was explained as the consequence of the policy of evacuating patients with these diagnoses to other treatment facilities out of the combat zone. Notably, risk for becoming wounded after psychiatric hospitalization was also lower for the 243 Marines who received the specific diagnosis of combat fatigue, despite the fact that they typically were returned to their units and combat duty. However, the reduced risk among this subset may have reflected a tendency for Navy psychiatrists to strictly reserve the combat fatigue diagnosis for those without evident predisposing personality deficits.[52,53,54](Table 4-3)

Hypothesizing a Link Between the Forward Treatment Doctrine, Psychotropic Medications, and Reduced Combat Performance

Taken together these two studies suggest an important question: Is it possible that some treatments received by soldiers with combat-related psychiatric symptoms in Vietnam may have negatively affected subsequent combat performance? More specifically, are there grounds to speculate on a link between the findings of liberal psychopharmacotherapy of Army combat soldiers and the overrepresentation among the wounded of some classes of psychiatrically hospitalized Marines who were returned to duty? (Some publications by Navy physicians indicated that their treatment approach coincided with the Army doctrine, including the extensive use of modern psychotropic medications.[53,54]) If so, it could prompt reconsideration of earlier assumptions as to the salutary effects of symptom suppression among combat troops, especially if it includes prescribing psychotropic medications (at least when there is not a critical military necessity for recovering psychiatric patients to be utilized as replacements). On the other hand, Datel and Johnson's failure to indicate if the soldier-patients continued to be exposed to combat or inquire about drug effects on combat performance, and Palinkas and Coben's omission of the specific elements included in the hospital treatment received by the Marines, render such a conclusion highly speculative.

Current Army doctrine permits the prescribing of psychotropic medications during combat operations if it is to return psychiatrically ill soldiers to their premorbid level of functioning rather than to *enhance* (emphasis added) baseline performance. In a recent review of the subject it was noted that the medications now available in the field are dramatically superior to those available in Vietnam, especially in having significantly lower side effects. However, there was no mention made of the possibility of long-term effects from symptom suppression.[61]

TABLE 7-3. Combat Psychiatrist Participants Reporting Clinical Experience With Combat Stress Reaction Cases, By Symptom Duration Levels (N = 47)

Combat Stress Reaction (CSR) Symptom Duration Level	Number of Psychiatrists	Percentage
Experience with acute CSR cases only (symptoms present < 2 days)	4	8.5%
Experience with extended CSR cases only (symptoms present 2–5 days)	5	10.6%
Experience with persistent CSR cases only (symptoms present > 5 days)	5	10.6%
Experience with both acute and extended CSR cases	11	23.4%
Experience with both extended and persistent CSR cases	11	23.4%
Experience with acute, extended and persistent CSR cases	11	23.4%
TOTAL	47	100.0%

WALTER REED ARMY INSTITUTE OF RESEARCH PSYCHIATRIST SURVEY FINDINGS: TREATMENT OF COMBAT STRESS REACTIONS IN VIETNAM

The following material extends the presentation that was begun in Chapter 5 of findings from the 1982 WRAIR postwar survey of psychiatrists who served with the Army in Vietnam. To explore their recollections of what was done in the theater for combat stress-affected troops, survey participants were asked a series of questions about the treatment of CSR cases in general as well as about treatment of specific symptoms. The responses presented in this section are limited to the roughly two-thirds of survey participants who acknowledged having some experience treating combat stress reaction cases. Subgroup analyses to test for effects of primary differences between respondent psychiatrists pertaining to war era, site of psychiatric training (civilian or military), or combat unit assignment in Vietnam (vs with a hospital) were precluded by small sample sizes. For this section only, respondents will be referred to as combat psychiatrists to distinguish them from the larger group of survey respondents.

Two Dimensions of Combat Stress Reactions Pertaining to Treatment: Severity of Symptoms and Duration of Symptoms

Severity of Combat Stress Reaction Symptoms

As a general reference, combat psychiatrist participants were provided an operational definition of the CSR adapted from Bartimier et al from World War II (refer back to Table 6-1). In this schema, symptoms associated with "normal fear" are listed, followed by those for combat stress reaction according to stages of severity: "incipient," "partial," and "complete" disorganization/dysfunction. Some survey questions utilized this symptom severity-based definition.

Duration of Combat Stress Reaction Symptoms

Some questions in the survey regarding CSR severity were crosscut by others concerning symptom duration, that is, the length of the soldier's disability. These questions utilized a schedule of three symptom duration levels adapted from observations of Albert J Glass in the Korean theater: (1) acute (symptoms less than 2 days), (2) extended (symptoms lasting between 2 to 5 days), and (3) persistent (symptoms lasting more than 5 days).[62] These distinctions also roughly coincide with the medical/psychiatric care echelon system. CSR symptom duration is obviously partly a function of severity, but it also may vary because of differences between individual soldiers or as a function of the treatments provided.

Breadth of Psychiatrists' Experiences With Combat Stress Reaction Cases by Symptom Duration Level

The WRAIR combat psychiatrist participants were asked if they treated combat stress reaction cases, or supervised their treatment, according to the three symptom duration levels, regardless of the setting where this treatment took place. According to their responses, the combat psychiatrist participants fell into one of six possible categories.

TABLE 7-4. Congruence of Combat Stress Reaction Symptom Duration Levels and Army Medical Care Echelons: Means of Combat Psychiatrist Participants Frequency of Experience With Combat Stress Reaction Cases, By Echelon of Care and By Combat Stress Reaction Symptom Duration Level (N = 47)

	Combat Stress Reaction (CSR) Symptom Duration Level		
Medical Care Echelon	Acute CSR (symptoms < 2 days) n = 26	Extended CSR (symptoms = 2–5 days) n = 38	Persistent CSR (symptoms > 5 days) n = 27
1st echelon care setting (battalion aid stations) n = 15		1.67*	1.67*
2nd echelon care setting (division clearing stations) n = 30	2.77		2.21
3rd echelon care setting (hospitals or psych detachments) n = 30	2.48	3.08	

Combat psychiatrist participants were asked about frequency of treatment of combat stress reaction cases in each echelon in which they had experience: Extent of agreement along a 1-to-5 point scale from 1 = very seldom to 5 = very frequent. Empty cells denote where full congruence between echelon care setting and symptom duration was assumed.
*Participants were asked simultaneously about frequency of treating both extended and persistent cases at the 1st echelon care setting.

As Table 7-3 indicates, 47 combat psychiatrist participants reported a wide range of experience in treating combat stress reaction cases in Vietnam. Interestingly, only a quarter of them (11) reported treating cases representing all three symptom-duration levels despite the policy of rotating psychiatrists from field assignments (ie, division psychiatrist) to those with the hospitals. The finding that all did not have such experiences could be a function of the lower incidence of combat stress reaction cases in Vietnam. In addition, it could be a consequence of the previously noted limitations in psychiatrist assignment types through the course of the war (ie, at most, only two-thirds of psychiatrists in a given year could be rotated between combat and hospital assignments, and, as it turned out, even fewer were).

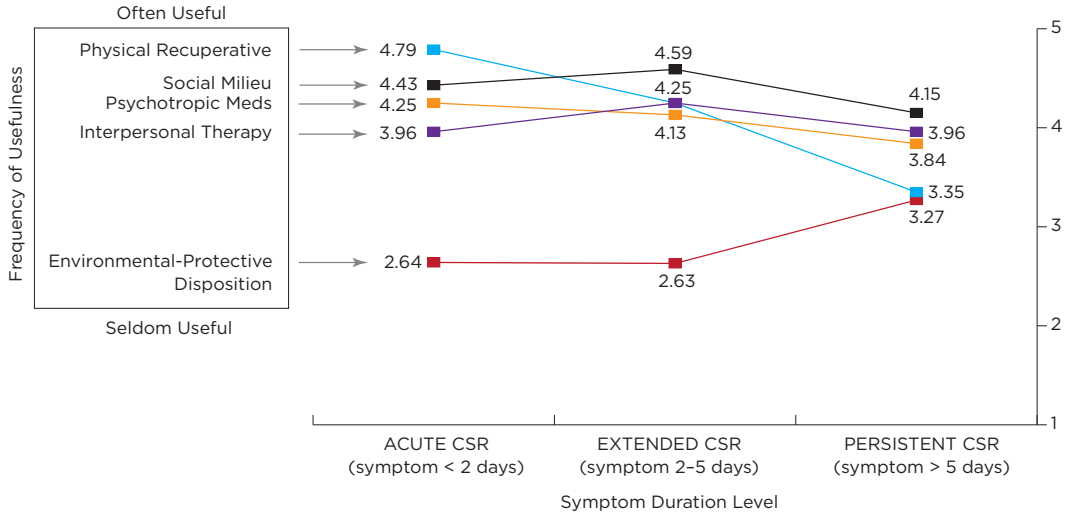
Perceived Effectiveness in Treating Combat Reaction Cases by Echelon of Medical/Psychiatric Care

Combat psychiatrist participants were asked to rate the overall success in the treatment of combat reaction cases for each of the three echelons of medical/psychiatric care based on their knowledge or experience. More specifically they were asked how frequently soldiers referred for combat-related symptoms were successfully treated and returned to combat duty within the timeframe associated with a particular treatment echelon (extent of agreement along a 1-to-5 point scale from 1 = very seldom to 5 = very frequent). Response means were as follows: 1st echelon care, that is, in the battalion aid stations = 3.76 (N = 26); 2nd echelon care, that is, in the division clearing stations = 3.92 (N = 38); and 3rd echelon care, that is, in the psychiatric specialty detachments = 3.35 (N = 27). Overall the trends represented in these findings are in the favorable direction, that is they suggest more success than non-success, because all means are > 3. Although it is consistent with the anecdotal data for treatment success for 1st and 2nd echelon care to be more frequent than that for 3rd echelon care, the prospect that treatment efficacy was more frequent for 2nd echelon care over 1st echelon care is not. The likely explanation is that respondents were not as familiar with the scope of outcomes at the 1st echelon level because they did not typically work at that level of care; they only supervised some of the social work/psychology technicians who did.

Congruence of Combat Stress Reaction Symptom Duration Levels and Army Medical Care Echelons

According to the doctrine of Army medical care in Vietnam, the level of pathology and the echelon of care should have generally coincided, that is, 1st echelon care (within the unit or at the battalion aid station) should treat mostly "acute" CSR cases; 2nd echelon care (in the

FIGURE 7-3. Means of combat psychiatrist participants' estimates of frequency of usefulness of treatments for combat stress reaction (CSR) according to major treatment categories, by symptom duration level (N = 32) [combat psychiatrist participants were asked extent of agreement along a 1-to-5 point scale from seldom useful to often useful].



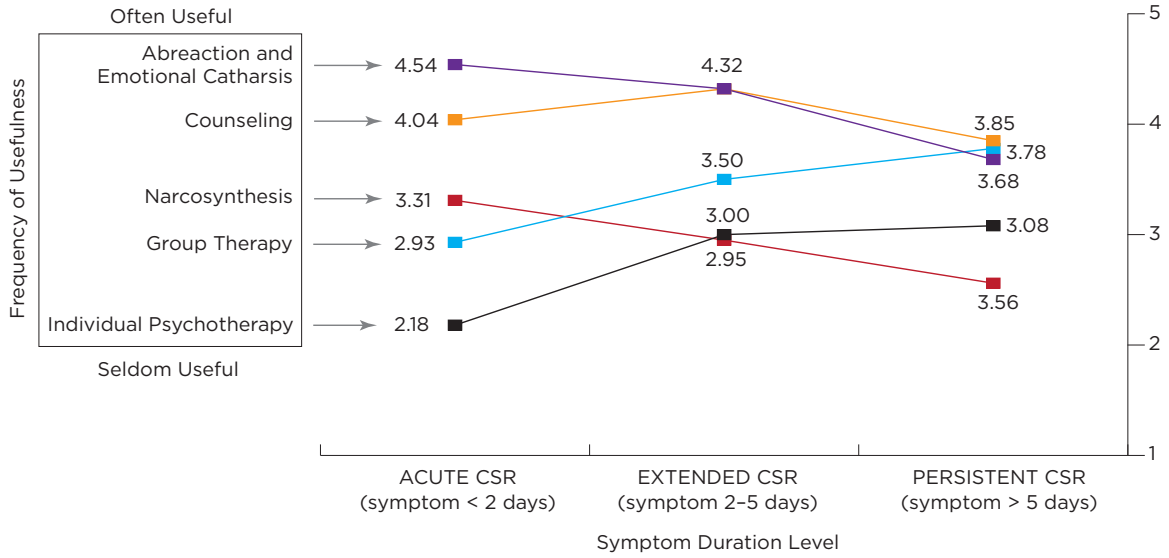
Interpersonal: counseling, catharsis, individual or group therapy, narcosynthesis
Social: ward milieu, military environment, staff expectancy of return to duty, contact with unit or home
Physical recuperative: safety, sleep, nourishment, hydration, rest, recreation, treatment for wounds or disease
Environmental-protective disposition: return to duty in noncombat position or to less stressful unit, evacuation out of the area of risk or out of Vietnam
Psychotropic meds: anxiolytics, neuroleptics, antidepressants, sedatives

division clearing station at the brigade or division base) should treat mostly "extended" CSR cases; and 3rd echelon care (in evacuation or field hospitals in Vietnam, especially those with psychiatric specialty detachments) should treat mostly "persistent" CSR cases. In order to explore the congruence between the echelon of medical care where CSR cases were treated and the symptom duration levels of the soldiers treated there, combat psychiatrist participants were asked a series of questions regarding their recollections of divergence from this schema. Table 7-4 presents a summary of their responses to these questions.

The following is an interpretation of the responses to this series of questions:

- *1st echelon care* (the battalion aid station): 15 combat psychiatrist participants reported having direct clinical contact with acute CSR cases at the battalion aid stations or were involved with technical supervision of the treatment of cases there. These psychiatrists confirmed that most soldier-patients usually remained there only 1 to 2 days. Those who did not recover sufficiently to be returned to duty by that time (ie, extended and persistent cases) were very seldom held longer and were evacuated to the next echelon of care.
- *2nd echelon care* (the brigade/division clearing station): 30 combat psychiatrist participants reported having some experience at the division clearing stations and confirmed that the CSR referrals seen there were usually extended cases (symptoms 2–5 days). Although their treatment of acute cases was in the range of seldom (ie, seldom bypassed the battalion aid stations), it approached intermediate. On the other hand, they seldom kept patients longer than 5 days (ie, persistent cases) as opposed to evacuating them beyond the division to a 3rd echelon, hospital/psychiatric specialty detachment.
- *3rd echelon care* (hospitals with psychiatric specialty detachments): 27 combat psychiatrist participants reported some experience in this setting and confirmed that most CSR cases treated there were persistent cases (symptoms > 5 days). They

FIGURE 7-4. Means of combat psychiatrist participants' estimates of perceived frequency of usefulness of interpersonal treatment elements for combat stress reaction (CSR), by symptom duration level (N = 31) [combat psychiatrist participants were asked extent of agreement along a 1-to-5 point scale from seldom useful to often useful].



Abreaction and emotional catharsis: therapist mostly listens and offers sympathy and support
Counseling: above plus reassurance, encouragement, information, inspiration, exhortation
Individual psychotherapy: both of the above, but includes interpretation of psychological conflicts
Group psychotherapy
Narcosynthesis: use of short-acting barbiturate to facilitate recall, abreaction, and reintegration

also reported that they seldom treated acute CSR cases (ie, those evacuated directly from the field), but that they frequently treated extended CSR cases (ie, those who bypassed the division clearing station after receiving some nonspecialized care at a battalion aid station/1st echelon care setting).

Although these responses support a conclusion of overall congruence of treatment echelon and CSR symptom duration, they also suggest a more fluid situation than would be anticipated from a strict implementation of the Army medical treatment and evacuation doctrine in Vietnam. In other words, these responses suggest that in practice there was some reduction in the "proximity" management principle for combat reactions in Vietnam. This was undoubtedly the consequence of the growing utilization of air ambulance and "dustoff" helicopters for medical evacuation, which facilitated casualties of all types, bypassing battalion aid stations and even division medical facilities to reach the surgical, field, and evacuation hospitals.[48,63] Deviation from the anticipated CSR symptom duration/treatment echelon match could also be partly accounted for by the fact that the four independent brigades operating in Vietnam did not have dedicated psychiatrist positions.

Perceived Value of Major Treatment Categories for Combat Stress Reactions

Combat psychiatrist participants were asked to rate the perceived value of five major treatment categories for each of the three combat stress reaction (CSR) symptom duration levels. The results are presented in Figure 7-3. Major treatment categories included:

- physical recuperative (safety, sleep, nourishment, hydration, rest, recreation, treatment for wounds or disease);
- pharmacologic (anxiolytics, neuroleptics, antidepressants, sedatives);
- social (ward milieu, military environment, staff expectancy of return to duty, contact with unit or home);

TABLE 7-5. Means of Combat Psychiatrist Participants' Estimates of Effectiveness in Providing Direct Interpersonal Treatment for Combat Stress Reaction Symptoms by Provider Type [N = 29–40]

Personnel Type	Perceived effectiveness
1. Psychiatrist	4.33
2. Enlisted psychology/social work specialist (91-G)	4.08
3. Social work officer	3.89
4. Enlisted inpatient corpsman (91-F)	3.8
5. Psychiatric nurse	3.47
6. Buddy	3.41
7. General medical officer	3.35
8. Line medic (91-B, C)	3.35
9. Psychologist	3.11
10. Leader (officer, NCO, squad leader, etc.)	3.10

Combat psychiatrist participants were asked extent of agreement along a 1-to-5 point scale from "seldom effective" to "often effective."
NCO: noncommissioned officer

- interpersonal therapy (counseling, catharsis, individual or group therapy, narcosynthesis); and
- environmental-protective disposition (return to noncombat duty position or to less stressful unit, evacuation out of area of risk or out of Vietnam).

The trends in the responses to this set of questions regarding efficacy of major treatment categories for combat stress reaction cases by symptom level suggest that:

- with little to distinguish them from each other, interpersonal treatment, pharmacotherapy, and therapeutic social milieu, which included maintenance of a military context and staff "expectancy" of rapid return to duty, were highly valued for all symptom duration levels;
- physically recuperative measures were valued most for acute cases and progressively less so as symptoms prolonged; and
- environmental-protective dispositions, such as reassignment of the soldier to a noncombat position or evacuation out of the combat area, were seen as the least useful until the stage of persistent cases, but even then they lagged behind most of the other types of interventions in value.

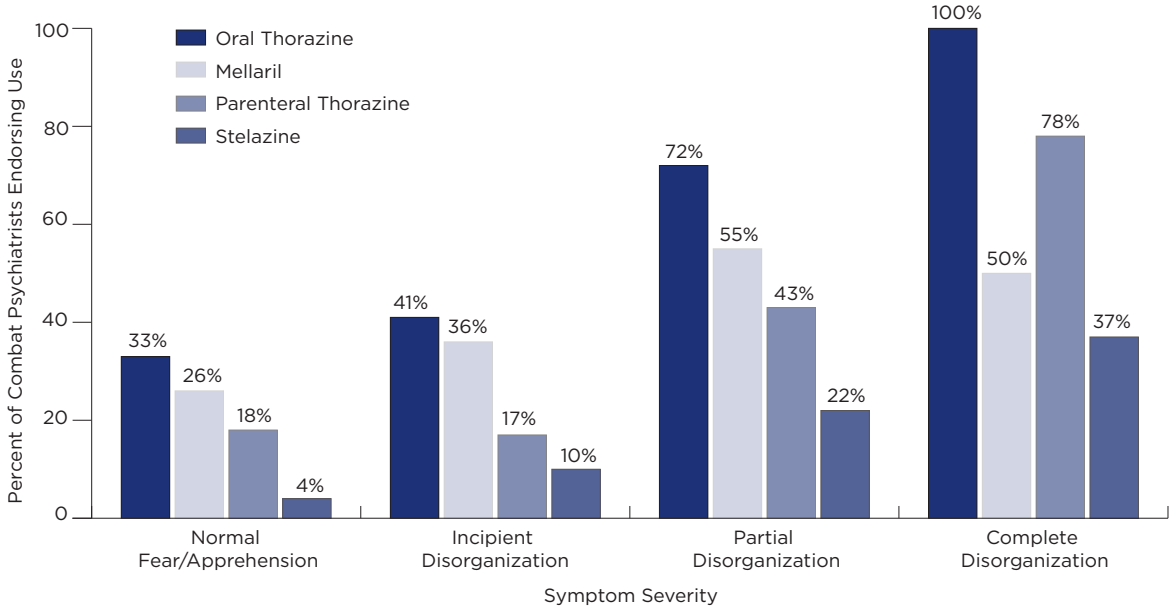
Apart from the unprecedented high value for pharmacotherapy compared to earlier wars, these responses appear to be generally consistent with the principles that comprised the pre-Vietnam doctrine. The high value for pharmacotherapy, however, does mean that mode of intervention was no longer limited in use because of presumed high risk, but was one that was perceived as synergistic with interpersonal and therapeutic social milieu treatments. Thus, in practice in Vietnam there was a substantial alteration of the "simplicity" doctrine principle.

Perceived Value of Interpersonal Treatments for Combat Stress Reaction

Combat psychiatrist participants were asked to rate the perceived value of five subcategories of therapist-provided treatments for the three CSR symptom duration levels. The results are presented in Figure 7-4. Therapist-provided treatments included:

- abreaction and emotional catharsis (therapist mostly listens and offers sympathy and support);
- counseling (above plus reassurance, encouragement, information, inspiration, exhortation);
- individual psychotherapy (both of the above, but includes interpretation of psychological conflicts);
- group psychotherapy; and
- narcosynthesis (use of short-acting barbiturate to facilitate recall, abreaction, and reintegration).

FIGURE 7-5. Prescription patterns for neuroleptic tranquilizing medications—Stelazine, Mellaril, oral Thorazine—and parenteral Thorazine (principally intramuscular, or IM)—in the treatment of combat stress reactions: Percent of combat psychiatrist participants who endorsed use ("commonly prescribed"), by symptom severity stages (N = 47). [The slopes for each drug represent averages across the three symptom duration levels.]



For acute cases, counseling, as well as guided abreaction/emotional catharsis (ie, facilitating the soldier's remembering and ventilating feelings surrounding the disturbing combat events), are the two interventions valued highest; and these are followed by narcosynthesis. Collectively their high rating is consistent with the belief that the acute combat stress reaction is a reversible bio\psycho\social crisis that responds favorably to a guided, supported, psychoemotional decompression. As symptoms prolong, these treatment categories become somewhat less valued (especially narcosynthesis), whereas deeper, more challenging treatments rise in value (ie, group and individual therapy, but somewhat more so with group therapy). This shift is consistent with the assumption that the more prolonged symptomatology includes a greater degree of pre-Vietnam personality susceptibility.

Perceived Differences Between Types of Therapists in Treatment Effectiveness With Soldiers With Combat Stress Reactions

Combat psychiatrist participants were asked to rate the perceived value of 10 types of "therapists" for soldiers experiencing combat stress symptoms regardless of setting. The results are presented in Table 7-5. Although it may not be surprising that survey participants rated themselves as the most effective, it is notable that they acknowledged the high value of the social work/psychology (91G) technicians and the in-patient (91F) technicians—enlisted corpsmen with specialized training who served a direct and vital role in supporting the recovery of soldiers in Vietnam. Also rated very high are the social work officers, which serves to validate their extremely important and generally unsung contribution to the provision of mental healthcare in Vietnam as well. Apart from the psychologists, it is generally understandable that the groups ranked in the top half of the results (1–5) were those with specialized psychiatric training before Vietnam. As for psychologists, they were invariably ranked low because at most only two were assigned in Vietnam per year (with the KO teams), and they usually had other professional responsibilities such as psychological testing. Most of the survey psychiatrists would not have worked with a psychologist in Vietnam. Meanings for the results pertaining to the other groups are subject to speculation.

FIGURE 7-6. Prescription patterns for anxiolytic tranquilizing medications (Valium and Librium) in the treatment of combat stress reactions. Percent of combat psychiatrist participants who endorsed use ("commonly prescribed"), by symptom severity stages (N = 47). [The slopes for each drug represent averages across the three symptom duration levels.]

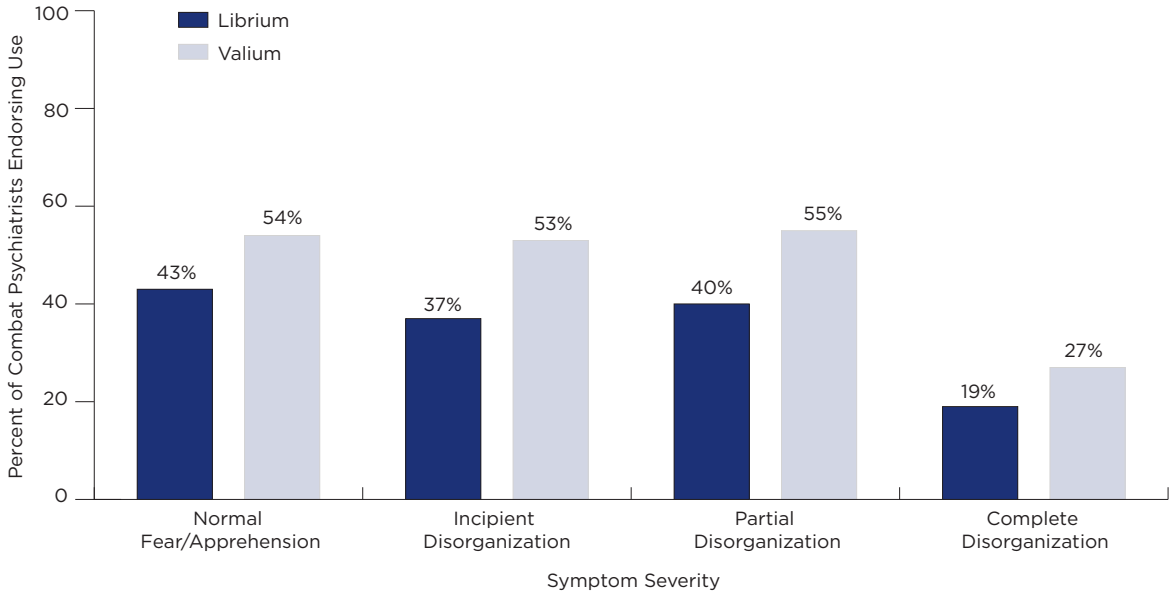


FIGURE 7-7. Prescription patterns for the sedative chloral hydrate, and the tricyclic antidepressant Tofranil in the treatment of combat stress reactions: Percent of combat psychiatrist participants who endorse use ("commonly prescribed"), by symptom severity stages (N = 47) [The slopes for each drug represent averages across the three symptom duration levels.]

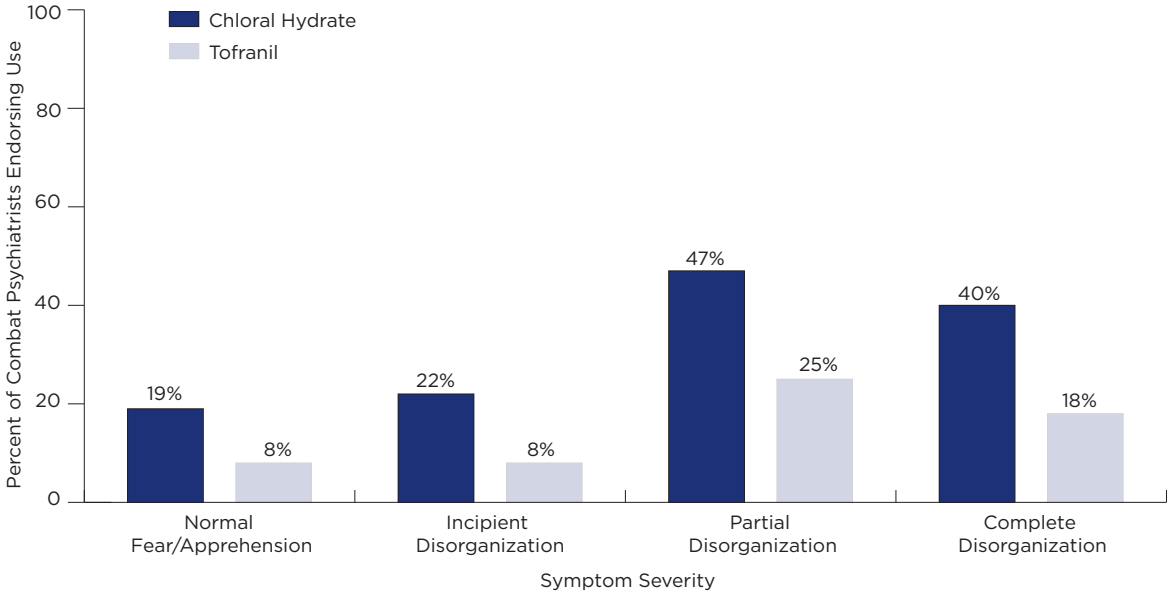
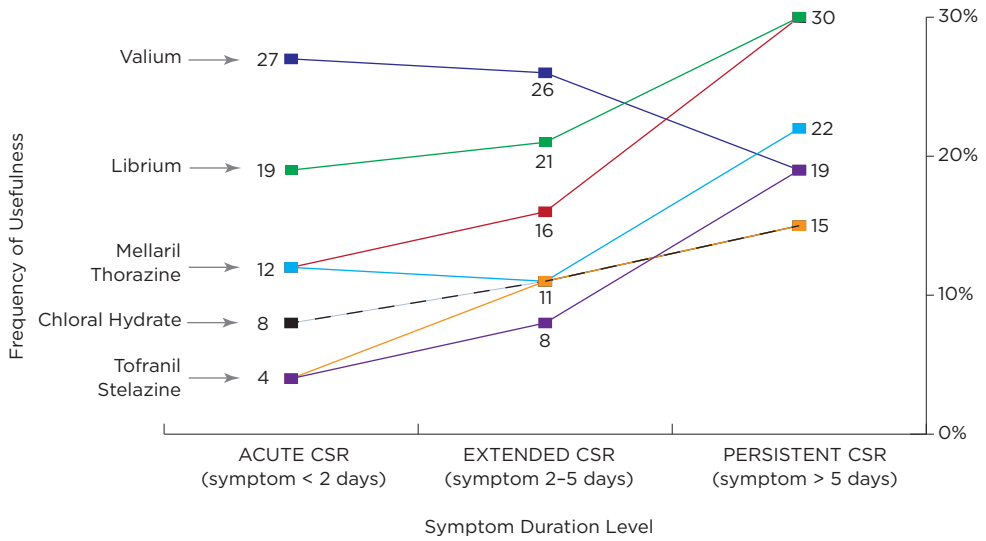


FIGURE 7-8. Recollections of patterns for psychotropic medications "routinely prescribed" for soldiers returned to duty following treatment for combat stress reactions (CSR): Percent of combat psychiatrist participants endorsing use, by symptom duration level (N = 47).



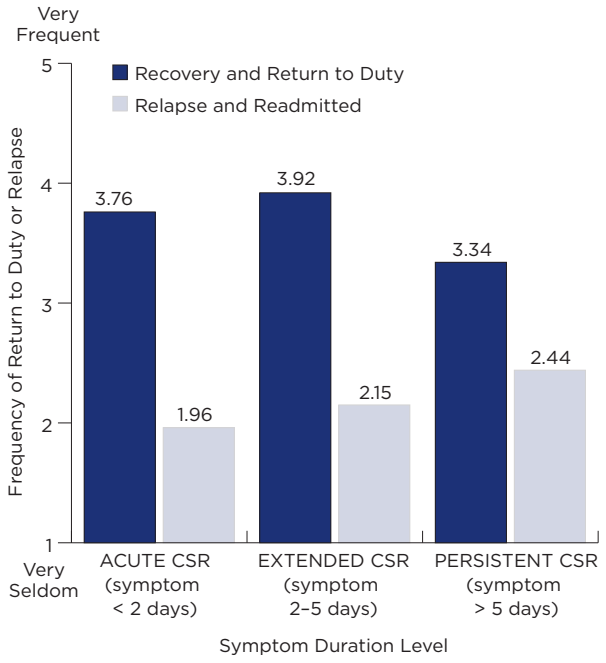
Perceived Use of Pharmacotherapy for Combat Stress Reactions

Figures 7-5, 7-6, and 7-7 summarize findings from survey questions regarding the use of psychotropic medications for soldiers with combat stress reactions by symptom severity and by symptom duration level. Although the combat psychiatrist participants were provided a list of 21 medications that were known to have been available at various times during the war, most acknowledged use of only 12, with seven representing the overwhelming majority. To simplify the presentation, findings for the seven drugs are grouped into three sets: (1) neuroleptics, (2) anxiolytics, and (3) "other," which are set against symptom severity levels. Results by symptom duration were very similar; therefore they were averaged to determine the slopes for each drug. A few participants also made scattered references to prescribing Nembutal, phenobarbital, and amytal. Questions regarding dosages did not produce useable patterns. None of the respondents indicated they prescribed stimulant medications. (Some respondents may have been affected by shortages or unavailability of specific medications, but for lack of data no attempt was made to account for this variable.)

Overall, results presented in Figures 7-5, 7-6, and 7-7 again substantiate that the combat psychiatrist participants highly valued psychotropic medications, especially the neuroleptics and anxiolytics, in the treatment of soldiers with normal fear/apprehension and with combat stress reactions of all stages. Some of the salient findings are as follows:

- In general, the combat psychiatrist participants endorsed increasing use of neuroleptic tranquilizers —Mellaril, Stelazine, and especially Thorazine—as levels of soldier symptoms exceeded normal fear/apprehension and incipient disorganization.
- For normal fear/apprehension, anxiolytic medications—Valium and Librium—in that order, were preferred.
- For incipient disorganization, there is some overlap in preference for anxiolytic and neuroleptic medications, but Valium was the leader.
- Use of the tricyclic antidepressant Tofranil and the sedative/hypnotic chloral hydrate, obviously targeting different symptoms, were not highly endorsed for normal fear/apprehension and incipient disorganization, increased some as symptoms levels progressed into partial disorganization, but lost favor to Thorazine and Mellaril once the level of complete disorganization was reached.

FIGURE 7-9. Combat stress reaction (CSR) case recovery with return to duty, and relapse after return to duty: Means of combat psychiatrist participants' estimates, by symptom duration level (N = 23–37). [Combat psychiatrist participants were asked to indicate frequency regarding: (a) recovery and return to duty within symptom duration level time limits; and (b) relapse after return to duty, using a 1-to-5 point scale from 1 = very seldom to 5 = very frequent].



- At the level of complete disorganization, the top five medications were endorsed in the following order: oral Thorazine (100%), parenteral Thorazine—the only neuroleptic available in Vietnam in injectable form (78%), Mellaril (50%), chloral hydrate (40%), and Stelazine (37%).

Perceived Value of Maintenance Pharmacotherapy Following Treatment for Combat Stress Reaction and Return to Duty

Combat psychiatrist participants were asked whether soldiers treated for combat stress reaction were prescribed psychotropic drugs as maintenance medications upon being returned to combat duty. Specifically, they were provided a list of commonly available psychotropic medications and asked to "Indicate with a checkmark or dosage range/schedule those *maintenance* medications that were routinely prescribed for the soldier who completed treatment and was returning to combat duty." Results are presented in Figure 7-8. Additional questions were asked as to whether there were any perceived influences on combat effectiveness from these medications; however, the responses were too variable for patterning.

Considering the inherent dangers and performance requirements for a combat soldier, it is quite striking that these medications were endorsed as maintenance medications to the extent suggested by Figure 7-8. Regarding acute CSR cases, the two anxiolytics were preferred over the other medications; however, inexplicably, these similarly acting drugs switched rankings as symptoms became more prolonged. Valium began as the leading medication (at 27%) but lost ground to Librium, with Librium ultimately ranked substantially higher for the persistent cases (at 30%, which equaled that of the neuroleptic Mellaril). Mellaril deserves special note as it was positioned relatively low for the acute CSR cases (at 12%, the same as Thorazine), but became the preferred neuroleptic for the persistent cases. The ranking for Thorazine rose in parallel with Mellaril for the extended cases, as did Stelazine, but both dropped below Mellaril, with Thorazine exceeding Stelazine. It can be speculated that, as previously noted, Mellaril was preferred for outpatients over the other neuroleptic drugs because it was thought to be less sedating than Thorazine and less activating than Stelazine. The nontranquilizer medications, the sedative chloral hydrate and the antidepressant Tofranil, also increased for the persistent cases, but they were ranked lowest (at 15%). Regarding the latter, low use of the antidepressant is consistent with the more general finding of Datel and Johnson that depression was not a common psychiatric complaint requiring treatment in Vietnam.

Combat Stress Reaction Treatment Effectiveness

Combat psychiatrist participants were asked a set of questions regarding recollections of frequency of return to duty, and of frequency of relapse after return to duty, for combat stress reaction cases from the standpoint of the three symptom duration levels: acute, extended, and persistent (regardless of treatment echelon where treatment was provided). Figure 7-9 presents the results.

The combat psychiatrist participants' responses regarding combat stress reaction treatment effectiveness presented in Figure 7-9 generally suggest an overall favorable outcome, but with a decline associated with the prolongation of symptoms. Recovery/return to duty

TABLE 7-6. Combat Psychiatrist Participants' Recollections of the Perceived Incidence of Specific Psychiatric Symptoms and Effective Psychotropic Medications

Symptoms Among Combat-Exposed Troops			Prescribing Patterns	
	Mean Incidence	N	n	% indicating use of specific drug or drug family*
5 = VERY COMMON				
"Short-timers" syndrome†	4.33	45	21	66% = Anxiolytic
4 = COMMON				
Threatened assault	3.66	47	24	45.8% = Neuroleptic 25% = Anxiolytic
Insomnia	3.64	44	22	27.3% = Barbiturate 22.7% = Anxiolytic
Anxiety dreams	3.53	45	23	43.5% = Anxiolytic 13% = Neuroleptic 13% = Sedative
Tension headaches	3.36	45	21	47.6% = Anxiolytic 28.6% = Analgesic
Musculoskeletal complaints	3.29	45	18	44.5% = Anxiolytic
Startle reactions	3.07	43	21	57.1% = Anxiolytic
3 = INTERMEDIATE				
Sleepwalking or talking	2.49	45	30	33.4% = Barbiturate 3.3% = Anxiolytic
Nausea, vomiting, diarrhea	2.36	44	15	33.4% = Anxiolytic 13.3% = Lomotil 13.3% = Compazine
Falling asleep on guard	2.34	44	4	No specifics
2 = UNCOMMON				
Hysterical amnesia	1.93	45	9	30% = Amytal interview 20% = Neuroleptic 20% = Anxiolytic
Hysterical deafness, aphonia	1.78	45	12	33% = Amytal (interview)
Narcolepsy	1.68	44	5	No specifics
Hysterical seizures	1.64	44	6	20% = Anxiolytic 16.7% = Anticonvulsant
Nocturnal enuresis	1.64	45	15	60% = Antidepressant
Hysterical stuttering	1.61	44	8	No specifics
Hysterical blurred vision	1.53	43	4	No specifics

The data presume absence of a primary physical cause. Regarding incidence, participants were asked to use a 1-to-5 point scale with: 1 = "very uncommon" to 5 = "very common." Regarding commonly prescribed medications for these conditions, an open-ended question was used.
N = numbers of respondents who endorsed psychoactive medications in general for the condition or symptom.
* = Percentages listed are for the endorsement of specific drugs or drug families; the remaining prescribing respondents were vague or noncommittal
† = A low-grade form of disability often exhibited in combat soldiers within 4 to 6 weeks of their DEROS. Symptoms commonly consist of reduced combat tolerance and efficiency; preoccupation with fears about being killed; and sullen, irritable, or withdrawn behavior.

DEROS: date expected return overseas

was endorsed more frequently than not for all three symptom duration levels, that is, all means > 3, although the score decreased for persistent cases. Likewise, for those returned to duty, relapse was not frequently endorsed (ie, all means < 3), but again, it increased as symptom duration levels increased, especially for the persistent group.

Perceived Incidence of Specific Symptoms Among Combat-Exposed Troops and Perceived Value of Psychoactive Medications for Treatment

Combat psychiatrist participants were provided a list of 17 symptoms commonly seen among combat troops either in Vietnam or in wars preceding Vietnam and were asked to indicate their perceived incidence in Vietnam. They were also asked an open-ended question as to medications found useful in their treatment. The results are presented in Table 7-6. For presentation purposes, specific drugs were combined into drug families.

The trends presented in Table 7-6 indicate that the symptoms the combat psychiatrist participants recalled treating among combat-exposed troops were more often milder and less dramatic than those reported in earlier wars. This suggests that the stress levels sustained by US ground troops were lower (for reasons already discussed; see Chapter 6, Figure 6-4, and interpretation), which is consistent with strain trauma as opposed to shock trauma. These findings coincide with the impression that the lack of sustained fighting in Vietnam produced lowered acute stress levels and less overt psychiatric debility; however, social and cultural influences cannot be ruled out as also influencing the forms of symptomatic expression seen.

These results also reinforce the previously noted findings indicating the high prevalence of use of the new psychotropic medications in the treatment of psychiatric symptoms of all types in Vietnam. The most notable finding in Table 7-6 was that anxiolytic medications were preferred for the more common symptoms presenting among combat-exposed troops. The exception pertains to "threatened assault." By these results, this was a high-incidence behavior problem—and, of course, potentially dangerous—where the neuroleptics were preferred by almost 2:1.

SUMMARY AND CONCLUSIONS

The basic assumptions underlying the traditional combat psychiatry forward treatment doctrine can be summarized as:

- combat-related stress casualties have a common biologic\psychologic\social dynamic despite their often variable presentations—one that results from soldiers having sustained unique hardships, challenges, and personal assaults associated with putting ones life on the line to accomplish the military objective;
- they typically represent a temporary, if extreme, natural reaction to overwhelming combat stress and fatigue; and
- they can be clinically addressed in a unitary fashion.

Based on these assumptions, when the United States entered the war in Vietnam, Army psychiatry advocated an empirically derived set of management and treatment principles intended to quickly restore soldiers to their premorbid state of function (PIES). These included (presented in their logical order as opposed to the acronym sequence): elemental treatments, such as safety, rest, replenishment, assisted anamnesis, reassurance, encouragement, and the conservative use of psychotropic medications ("simplicity"); applied as rapidly as possible ("immediacy"); as close to the soldier's unit and the fighting as the tactical situation permitted ("proximity"); and surrounded by a collective expectation that the soldier should quickly recover, resume his military job, and perform his duty ("expectancy").

This chapter reviewed the available psychiatric and related documentation from the war, as well as selected responses from the WRAIR survey of veteran Army psychiatrists, to characterize the treatment that was provided in the theater for soldiers who developed these conditions. Although the incidence of frank combat stress reactions in Vietnam was perhaps only a quarter or less of that found in earlier, high-intensity wars, nonetheless the medical and psychiatric personnel there were often clinically challenged by these and related conditions. Impressions derived from this review are summarized as follows:

- **Because of the relatively low numbers of soldiers disabled with classical combat reaction and other**

combat stress-generated psychiatric conditions compared to earlier wars, there was apparently little concern by the Army that this medical/psychiatric problem could compromise its combat capability. There is no greater proof for this than the observation that the only published summary of the US Army medical experience in Vietnam did not include statistics for combat exhaustion or even mention combat-generated psychopathology in any context. This meant that the medical requirement for limiting psychiatric attrition among combat units to "conserve the fighting strength" did not dominate clinical decision making there.

- **The treatment approaches of the psychiatrists and allied medical and mental health personnel who provided care for the troops with combat stress symptoms roughly coincided with the traditional treatment doctrine; there appears to be ample documentation of favorable treatment results.** This is despite inconsistencies in the dissemination of a protocol for the combat psychiatry forward treatment doctrine to the assigned primary care physicians and psychiatrists and growing stateside opposition to the war and psychiatric cooperation with the US military. Although satisfaction in this record must be tempered by the inadequate documentation of the care provided in the last third of the war, findings from the WRAIR survey help to offset the omission and further validate these impressions.

- **In providing treatment for soldiers with combat stress symptoms, adapting to the circumstances in Vietnam meant that the doctrine's principles of "immediacy" and "expectancy" were generally upheld, but "proximity" was substantially reduced by the ubiquity of heliborne medevacuation, and "simplicity" was dramatically altered by the use of the new tranquilizing medications.**

  - Regarding proximity—the ease of helicopter medical transport apparently meant that a somewhat greater proportion of acute combat exhaustion cases were treated at 2nd echelon/division psychiatry facilities (compared with Korea). Similarly, a greater proportion of acute and extended combat exhaustion cases were treated at the 3rd echelon/psychiatric specialty detachments. However, there is no evidence that soldiers who were treated geographically more remote from their units had a more difficult or protracted clinical course than in the past, perhaps also because of the availability of helicopter transport (ie, units could more easily maintain ties with hospitalized soldiers).
  - Regarding simplicity—from the outset, modern psychotropic tranquilizers were widely used by battalion surgeons and most of the psychiatrists for the treatment of classic combat reactions as well as less disabling combat stress symptoms. But there was no clear evidence that pharmacotherapy was antagonistic to military treatment objectives, as was the case with the sedative/hypnotics used in earlier wars. Among the salient findings from the WRAIR psychiatrist survey:

    — Neuroleptic medications were favored for more severe or more prolonged symptomatology. The most popular was Thorazine.
    — Anxiolytic medications were favored for less severe symptomatology. The most popular was Valium.
    — Commonly treated symptoms were (in descending order): short-timer's syndrome, threatened assault, insomnia, anxiety dreams, tension headache, (functional) musculoskeletal complaints, and startle reaction. Anxiolytics were preferred for most of these symptoms, but neuroleptics were strongly preferred for threatened assault, and barbiturates were preferred for insomnia.
    — Anxiolytic medications were also favored by the psychiatrists for stress-related gastrointestinal disturbances, whereas the neuroleptic Compazine was preferred by primary care physicians.

- **Maintenance psychotropic medicines were also commonly prescribed for soldiers operating in the field.** This was more likely for soldiers whose recovery had been somewhat prolonged. Two observations of note:

- The WRAIR survey participants favored the anxiolytics for soldiers recovering from acute combat reactions, but the neuroleptic Mellaril was especially popular (as was Librium) for soldiers who were recovering from more protracted combat reactions.
- These medications were prescribed despite the fact that the physicians had no information as to effects on combat performance or long-term effects.

- **The record from Vietnam is especially strong regarding the value of the enlisted social work/ psychology and psychiatric inpatient specialists in the treatment of combat stress conditions and symptoms.** Not only did they prove to be extremely capable, but they also supported the extension of psychiatric expertise within the divisions (so-called decentralization of care) and in the therapeutic milieu of the inpatient programs.

- **There is little in the record from Vietnam to indicate that the psychiatrists provided primary prevention intervention, that is, program consultation with command cadre, by offering advice for minimizing stress on combat troops and reducing the incidence of combat stress-generated psychiatric conditions.** The available professional literature from Vietnam, both from the psychiatrists assigned to the combat divisions and those serving at the hospitals and with the psychiatric specialty detachments, contained mostly accounts of secondary and tertiary preventive activities and did not document primary prevention activities. Furthermore, the WRAIR psychiatrist survey results suggested that the deployed psychiatrists were not especially knowledgeable as to the wide array of psychosocial stresses bearing on combat troops in Vietnam.

- **There is little to document specific psychiatric involvement in the management and treatment of specific behavior and discipline problems that may have been expressive of especially stressed combat troops (ie, combat avoidance or refusal, excessive combat aggression, neglected hygiene or care of weapons and equipment, violent incidents toward other US troops, etc).**

REFERENCES

1. Salmon TW. The care and treatment of mental diseases and war neuroses ("shell shock") in the British Army. *Ment Hyg*. 1917;1:519–547.
2. President Lyndon Johnson's message to Congress, 5 August 1964. In: US Department of State. *Why We Fight In Viet-Nam*. Washington, DC: Department of State, Office of Media Services; June 1967. Viet-Nam Information Notes (#6).
3. US Department of the Army. *Military Psychiatry.* Washington, DC: HQDA; August 1957. Technical Manual 8-244.
4. Bartemeier LH, Kubie LS, Menninger KA, Romano J, Whitehorn JC. Combat exhaustion. *J Nerv Ment Dis*. 1946;104:358–389.
5. Camp NM. The Vietnam War and the ethics of combat psychiatry. *Am J Psychiatry*. 1993;150(7):1000–1010.
6. Glass AJ. Psychotherapy in the combat zone. *Am J Psychiatry*. 1954;110:725–731.
7. Artiss KL. Human behavior under stress—From combat to social psychiatry. *Mil Med*. 1963;128:1011–1015.
8. Hausman W, Rioch DMcK. Military psychiatry. A prototype of social and preventive psychiatry in the United States. *Arch Gen Psych*. 1967;16(6):727–739.
9. Manning FJ. Morale and cohesion in military psychiatry. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, eds. *Military Psychiatry: Preparing in Peace for War*. In: Zajtchuk R, Bellamy RF, eds. *Textbooks of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, Borden Institute; 1994: 1–18.
10. Kormos HR. The nature of combat stress. In: Figley CR, ed. *Stress Disorders Among Vietnam Veterans: Theory, Research and Treatment*. New York, NY: Bruner/Mazel; 1978: 3–22.
11. Noy S. Combat psychiatry: the American and Israeli experience. In: Belenky G, ed. *Contemporary Studies in Combat Psychiatry*. Westport, Conn: Greenwood Press; 1987: 70–86.

12. Rahe RH. Acute versus chronic psychological reactions to combat. *Mil Med*. 1988;153(7):365–372.
13. Jones FD. Psychiatric lessons of war. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: Zajtchuk R, Bellamy RF, eds. *Textbooks of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, Borden Institute; 1995: 1–33.
14. Colbach EM, Parrish MD. Army mental health activities in Vietnam: 1965–1970. *Bull Menninger Clin*. 1970;34(6):333–342.
15. Glass AJ. Military psychiatry and changing systems of mental health care. *J Psychiat Res*. 1971;8(3):499–512.
16. Shaw JA. Psychodynamic considerations in the adaptation to combat. In: Belenky G, ed. *Contemporary Studies in Combat Psychiatry*. Westport, Conn: Greenwood Press; 1987: 117–132.
17. Medical Field Service School. *Introduction to Military Psychiatry*. Fort Sam Houston, Tex: Department of Neuropsychiatry, Medical Field Service School; distributed July 1967. Training Document GR 51-400-004, 064.
18. Woolridge WO. So you're headed for combat: how to get ready and what to expect. *Army Digest*. 1968;23(1):6–11.
19. Medical Corps Officer Basic Training, Medical Field Service School Department of Neuropsychiatry, Fort Sam Houston, Tex; July 1967. Author notes.
20. Medical Field Service School. *Organization of Psychiatric Services at Division Level*. Fort Sam Houston, Tex: Department of Neuropsychiatry; distributed July 1967. Training document GR 51-400-960, 015.
21. Jones FD. Chronic post-traumatic stress disorders. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: Zajtchuk R, Bellamy RF, eds. *Textbooks of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, Borden Institute; 1995: 409–430.
22. Cooke ET. *Another Look at Combat Exhaustion*. Fort Sam Houston, Tex: Department of Neuropsychiatry, Medical Field Service School; distributed July 1967. Training Document GR 51-400-320, 055.
23. Allerton WS. Army psychiatry in Vietnam. In: Bourne PG, ed. *The Psychology and Physiology of Stress: With Reference to Special Studies of the Viet Nam War*. New York, NY: Academic Press; 1969: 219–236.
24. Gabriel RA. *No More Heroes: Madness & Psychiatry in War*. NY: Hill and Wang; 1987.
25. Jones FD. Psychiatric principles of future warfare. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: Zajtchuk R, Bellamy RF, eds. *Textbooks of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, Borden Institute; 1995: 113–132.
26. Baker SL Jr. Traumatic war disorders. In: Kaplan HI, Freedman AM, Sadock BJ, eds. *Comprehensive Textbook of Psychiatry.* 3rd ed. Baltimore, Md: Williams & Wilkins; 1980: 1829–1842.
27. Johnson AW Jr. Psychiatric treatment in the combat situation. *US Army Vietnam Med Bull*. 1967;January/February:38–45.
28. US Department of the Army. *Medical Service: Neuropsychiatry*. Washington, DC: DA; June 1959. Army Regulation 40-216.
29. Bowman JA. *Recent Experiences in Combat Psychiatry in Viet Nam* (unpublished), 1967. [Full text available as Appendix 11 to this volume.]
30. Bostrom JA. Management of combat reactions. *US Army Vietnam Med Bull*. 1967;July/August:6–8.
31. Baker WL. Division psychiatry in the 9th Infantry Division. *US Army Vietnam Med Bull*. 1967;November/December:5–9.
32. Pettera RL, Johnson BM, Zimmer R. Psychiatric management of combat reactions with emphasis on a reaction unique to Vietnam. *Mil Med*. 1969;134(9):673–678.
33. Johnson AW Jr. In: Johnson AW Jr, Bowman JA, Byrdy HS, Blank AS Jr. Panel discussion: Army psychiatry in Vietnam. In: Jones FD, ed. *Proceedings: Social and Preventive Psychiatry Course, 1967*. Washington, DC: GPO; 1968: 41–76. [Available at: Alexandria, Va: Defense Technical Information Center; 1980. Document

No. AD A950058.] [Full text of Johnson's remarks available as Appendix 7 to this volume.]
34. Bey DR. *Division Psychiatry in Vietnam* (unpublished); undated.
35. Bender PA. Social work specialists at the line battalion. *US Army Vietnam Med Bull*. 1968;May/June:60–69.
36. Motis G, West HE. The case of the dumbstruck soldier. *US Army Vietnam Med Bull*. 1968;March/April:70–73.
37. Menard DL. The social work specialist in a combat division. *US Army Vietnam Med Bull*. 1968;March/April:48–57.
38. Allerton WS. Army psychiatry in Vietnam. In: Bourne PG, ed. *The Psychology and Physiology of Stress: With Reference to Special Studies of the Viet Nam War*. New York, NY: Academic Press; 1969: 219–236.
39. Bey DR. Division psychiatry in Viet Nam. *Am J Psychiatry*. 1970;127(2):228–232.
40. Bey D. *Wizard 6: A Combat Psychiatrist in Vietnam*. College Station, Tex: Texas A & M University Military History Series, 104; 2006.
41. Bowman JA. Unit History of the 935th Medical Detachment (KO), 20 September 1965 to 1 September 1966 (unpublished); undated.
42. Bloch HS. Army clinical psychiatry in the combat zone: 1967–1968. *Am J Psychiatry*. 1969;126(3):289–298.
43. Bloch HS. Brief sleep treatment with chlorpromazine. *Compr Psychiatry*. 1970;11(4):346–355.
44. Bloch HS. *Some Interesting Reaction Types Encountered in a War Zone* (unpublished); undated. [Full text available as Appendix 12 to this volume.]
45. Bey DR Jr, Smith WE. Organizational consultation in a combat unit. *Am J Psychiatry*. 1971;128(4):401–406.
46. Datel WE, Johnson AW Jr. *Psychotropic Prescription Medication in Vietnam*. Alexandria, Va: Defense Technical Information Center; 1981. Document No. AD A097610. [Available at: http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA097610&Location=U2&doc=GetTRDoc.pdf.]
47. Bourne PG, Nguyen DS. A comparative study of neuropsychiatric casualties in the United States Army and the Army of the Republic of Vietnam. *Mil Med*. 1967;132(11):904–909.
48. Neel SH. *Medical Support of the US Army in Vietnam, 1965–1970*. Washington, DC: GPO; 1973.
49. Balser BH. Military psychiatry today. *Mil Med*. 1969;134(13):1535–1536.
50. Bourne PG. Military psychiatry and the Viet Nam experience. *Am J Psychiatry*. 1970;127(Suppl 4):481–488.
51. Johnson AW Jr. Combat psychiatry, II: The US Army in Vietnam. *Med Bull US Army Europe*. 1969;26(11):335–339.
52. Strange RE. Combat fatigue versus pseudo-combat fatigue in Vietnam. *Mil Med*. 1968;133:823–826.
53. Kilpatrick TD, Grater HA Jr. Field report on Marine psychiatric casualties in Vietnam. *Mil Med*. 1971;136(10):801–809.
54. Strange RE, Arthur RJ. Hospital ship psychiatry in a war zone. *Am J Psychiatry*. 1967;124(3):281–286.
55. Colbach EM. Ethical issues in combat psychiatry. *Mil Med*. 1985;150(5):256–265.
56. Holloway HC. Vietnam military psychiatry revisited. Presentation to: American Psychiatric Association Annual Meeting; 19 May 1982; Toronto, Ontario, Canada.
57. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 2nd ed (DSM-II). Washington, DC: APA; 1968.
58. Renner JA Jr. The changing patterns of psychiatric problems in Vietnam. *Compr Psychiatry*. 1973;14(2):169–181.
59. Byrdy HSR. In: Johnson AW Jr, Bowman JA, Byrdy HSR, Blank AS Jr. Panel discussion: Army psychiatry in Vietnam. In: Jones FD, ed. *Proceedings: Social and Preventive Psychiatry Course, 1967*. Washington, DC: GPO; 1968: 41–76. [Available at: Alexandria, Va: Defense Technical Information Center. Document No. AD A950058.]
60. Byrdy HSR. Division psychiatry in Vietnam. (unpublished), 1967. [Full text available as Appendix 8 to this volume.]
61. Schneider BJ, Bradley JC, Warner CH, Benedek DM. Psychiatric medications in military operations. In: Ritchie EC, ed. *Combat and Operational Behavioral Health*. In: Lenhart

MK, *The Textbooks of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, Borden Institute; 2011: 151–162.

62. Glass AJ. Psychiatry in the Korean Campaign: a historical review, 1. *US Armed Forces Med J*. 1953;4(10):1387–1401.

63. Parrish MD. The megahospital during the Tet offensive. *US Army Vietnam Med Bull*. 1968;May/June:81–82.