Chapter 17

THE PRISONER OF WAR

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INTRODUCTION

THE PRISON EXPERIENCE
- **Nature of Captivity**
- **Adaptation and Coping**
- **Social Isolation**
- **Psychiatric Symptoms During Captivity**

RESISTANCE

SEQUELAE OF THE POW EXPERIENCE
- **Medical Illness**
- **Psychiatric Illness**
- **Personality Change**

PREDICTORS OF PSYCHIATRIC DISTRESS
- **Severity of Captivity**
- **Predisposition**
- **Social Supports**

READJUSTMENT
- **Repatriation and Reintegration**
- **Organizers in Adult Personality Development**
- **Recovery**

TREATMENT OF POSTREPATRIATION ILLNESS
- **Medical Disorders**
- **Psychiatric Disorders**

FAMILY ISSUES

SUMMARY AND CONCLUSION

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Artist Unknown *Prisoner Interrogation* circa 1943

This sketch is part of an extensive collection of captured German art from World War II in the possession of the U.S. Army Center for Military History. It graphically depicts the questioning of barefoot prisoners of war in what appears to be an underground bunker.

Art: Courtesy of US Army Center of Military History, Washington, DC.

INTRODUCTION

That trauma can be accompanied or followed by psychiatric sequelae is well-established.[1–4] The degree of severity of a traumatic event is positively associated with potential for psychopathology.[3,5–9] This is not a one-to-one association, however. Social supports, cultural variables, and personality also play roles. The prisoner of war (POW) experience can be one of the most traumatic situations in human experience. The study of coping during captivity, as well as psychological health and pathology following repatriation, has implications for psychiatric planning for future wars and for treatment of other stressor-related psychiatric illnesses. In this chapter, the literature on the psychiatric effects of the POW experience, coping behaviors, psychiatric symptoms during imprisonment, psychiatric sequelae after repatriation, etiologic factors producing postrepatriation psychopathology, treatment of the psychiatrically ill former POW, and the effects of imprisonment on the family will be reviewed.

THE PRISON EXPERIENCE

Nature of Captivity

There is no one POW experience. For example, the average duration of POW imprisonment during the Vietnam conflict was substantially longer than during World War II and the Korean conflict. Many POWs were held captive in Vietnam for 6 to 7 years. In addition, the severity of conditions was greater in World War II Pacific Theater POW camps than in European Theater prisons.[10–16] In contrast, the POW experience in the Persian Gulf War was generally no more than 30 days with some, but not all, POWs experiencing torture and others fearing death from bombings by the Allies. It is important to remember that repatriated POWs are a subset of those who are lost, captured, and imprisoned. They are the survivors. Nothing is known about the group that never returned. The nature of captivity plays an important role in determining psychiatric responses both during imprisonment and following repatriation. The types of stressors to which POWs are exposed are dependent on the cultural and socioeconomic status of the captors, the geography, the climate, endemic diseases, the circumstances of capture (aircrew ejection, large group surrender, etc.), the political climate, and the degree of resistance offered by the POW.[17] The degree of stress caused by these experiences depends on the physical conditions, the psychological experience, degree of maltreatment, interpersonal issues, and the individual and cultural appraisal of events.[18] The role of culture itself as a stressor is frequently overlooked.[18] Exposure to a country with limited resources, different rules of interpersonal and group relations, and different day-to-day personal and work habits can be stressful regardless of any intent to deprive or demean a captured soldier.

In order to describe and quantify the stress factors of the Vietnam-era POW experience, Ursano and colleagues reviewed debriefing reports and medical questionnaires completed by repatriated Vietnam-conflict POWs immediately after release.[5] One section of the medical questionnaire included questions on the methods used by the North Vietnamese to control the prisoner's behavior. Each question was answered on a four-point scale that ranged from "never" to "very often." Debriefing reports were coded for frequency and type of maltreatment. Using a factor analytic technique, seven stress factors were identified: (1) psychological maltreatment, (2) physical torture and maltreatment, (3) solitary confinement, (4) interrogation, (5) threats and denials of privileges, (6) high resister status, and (7) duration of maltreatment.

The acute and chronic stresses of captivity must be differentiated. At times, the difference has been referred to as stress (acute) and strain (chronic). Basic animal studies highlight this distinction. Young hamsters separated from their mothers (acute stress) will initially display hyperarousal and make a "separation call." This is eventually followed (chronic stress) by withdrawal and absence of a separation call.[19] Cassem and Hackett have reported a similar pattern of psychological response in humans following the specific stressor of myocardial infarction.[20] An initial period of anxiety and autonomic hyperactivity is followed by withdrawal and neurasthenia.

Readily reversible hyperarousal is a common initial reaction in combat.[21] In contrast, a consistent

observation in men exposed to chronic combat is neurasthenia, withdrawal, defeatism, and isolation. A neurasthenic appearance in POWs after prolonged captivity was described[22] by Greenson in World War II POWs[23] and by Strassman in Korean conflict POWs.[24] Both noted an apathy syndrome that was felt to be adaptive in the POW environment. Withdrawal and detachment increased the chances of survival. In this way, energy was conserved and the POW was less likely to stand out, challenge the captors, and elicit threats and torture.

Looking at Minnesota Multiphasic Personality Inventory (MMPI) measures, Ursano et al[25] found that withdrawal and detachment were related to successful coping only in the high but submaximal stress Vietnam-conflict POW group (those captured after 1969). In the maximum stress group, withdrawal and apathy were also present but they were not predictive of successful coping. In this maximum POW stress group, denial, repression, and suspiciousness were associated with better coping. This suggests that cognitive coping strategies may be important in maximal stress settings after withdrawal from the environment has been attempted. With the passage of time, withdrawal and neurasthenia may be less helpful and other strategies such as fantasizing and pondering family concerns more useful.[26]

The stages of the POW captivity experience are as follows: capture, imprisonment, confinement, repatriation, and reintegration. Each stage has unique stressors.[27,28] For instance, at the time of capture, POWs must gain quick emotional control, deal with fears of death, and attend to the tasks necessary for survival. Expectations of rescue fade quickly after removal from the capture site; usually the prisoner is bound and/or blindfolded. A sense of disbelief may result from the rapid sequence of events and the radical change in roles from combatant to captive.

The phase of imprisonment includes the initial "breaking-in" and transport to the final confinement site. The POW is forced to adapt to a lower plane of existence and becomes aware of losing his usual supports and prestige. Feelings of longing for freedom, wishes for sympathy, dissociation, and fantasizing about home or retaliation are common in this phase. This is also the period of hyper-vigilance, alertness, orienting to sur roundings, and attending to detail. The last two can form the basis of a reassuring sense of familiarity over time.

The third phase of the POW experience, confinement, is characterized by exploitative interrogations, confessions, isolation, boredom, demoralization about the uncertainty of the situation, and the need to make decisions regarding resistance and compliance. The hypervigilant state is replaced by apathy, dysphoria, and gradual movement toward accommodation to the situation. During this long phase, POWs often engage in self-developed physical fitness programs, group communication, resistance, humor, creativity through projects and fantasies (learning a language, collaboration, fantasizing about the future, planning escape or sabotage), and also helping other POWs.

The period of repatriation and the subsequent life-long process of reintegration have unique stressors and adaptational strategies as well. They are discussed later in the chapter.

Adaptation and Coping

The stressors of the POW environment are many; often they are terrifying and inhuman, and always they are filled with the unexpected[29,30] as is shown in Exhibit 17-1. Biological stressors can be extreme and vary with both the geographic location and the demeanor of the captors. Psychological stress, including social isolation, is variable. Physiologic stress and emotional duress were both significantly higher in POWs held captive in the Pacific Theater during World War II than in POWs held in the European Theater. Maltreatment is directly related to the extent to which an enemy country sees the POW as politically valuable. In Vietnam, after 1969, conditions improved and torture and maltreatment of the POWs decreased. This change corresponded with the recognition by North Vietnam that the POWs could be an important political tool.

Survival during the POW experience is most related to the degree of injury at the time of capture and the availability of food, shelter, and medical care. For example, 4% of Canadian POWs in World War II died in European prison camps and 27% in the much worse Pacific prisons.[31] The conditions of captivity are strongly influenced by the nature of the combat prior to capture, the economic conditions of the enemy, and whether the POW is seen as politically valuable. Though not all POW experiences are comparable and a single POW experience varies with time, it appears that personality flexibility positively influences survival potential and adaptability. Rigidity is less adaptive. It is not clear whether coping behaviors during captivity affect postrepatriation psychopathology. Ursano[25] found no relationship between postrepatriation psycho-

EXHIBIT 17-1

STRESSES OF CAPTIVITY

Physical
- Crowding
- Diarrhea
- Epidemic diseases
- Exhaustion
- Forced labor
- Infectious organisms
- Injuries
- Medical experimentation
- Nutritional deprivation
- Sleeplessness
- Torture
- Weather extremes
- Wounds

Psychological
- Boredom
- Close long-term affiliation
- Confinement
- Danger
- Family separation
- Fear/terror
- Guilt
- Humiliation
- Isolation
- Threats
- Unpredictability

pathology and resistance stance, "marginal coping" during captivity, or feeling benefited from the POW experience after return.

Exhibit 17-2 summarizes POW coping behaviors.[14,21,22,28–39] Nardini's[10] experience with many of the 12,000 surviving World War II Pacific Theater prisoners of war of the Japanese led him to conclude that there were several attributes that allowed these 12,000 men to survive (there were another 18,000 who did not survive). These included: strong motivation for life, good general intelligence, good constitution, emotional insensitivity or well-controlled and balanced sensitivity, preserved sense of humor, strong sense of obligation to others, controlled fantasy life, courage, successful resistance, opportunism, military experience, and luck.

The POW's personality also affects adaptation and coping. In the crew of the USS *Pueblo*, held by North Korea in 1968, immaturity, passive-dependency, and obsessive-compulsiveness were associated with poor adjustment.[1] Ford and Spaulding[40] examined crew members of the Pueblo just after their release. Men who did well during captivity often had personalities described as "healthy" or "schizoid." They used a wide variety of ego defenses, particularly faith, reality testing, denial, rationalization, and humor. Men who handled the stress poorly were frequently diagnosed as being passive-dependent and were more limited in the number of ego defenses they used.

Schizoid behavior and introversion have been reported to be more adaptive than obsessive-compulsive, passive-dependent, or immature behaviors.[1,31] Passive-dependency has been singled out as a particularly maladaptive response.[1,31,41] Induction of dependency is advantageous to camp leaders in imposing their will.[41] The psychological state of the POW during captivity has been described as dependency, debility, and dread (DDD).[42] Identification of adaptive personality characteristics requires further study. It is clear that personality resiliency and the ability to tolerate passivity is positively related to optimal adaptation.[43-45]

Jones[38] reviewed six books written by former POWs who had been held in North Vietnamese prison camps. He identified coping strategies that sustained the POWs during imprisonment, all having in common that each man had a standard of behavior he set for himself. Ideals that were commonly reported as sustaining were: (*a*) loyalty to country (remembering their heritage, focusing on their patriotic duty to resist), (*b*) idealizing their family (hoping to return with a feeling of having been worthy of them), and (*c*) alliance with fellow prisoners (communications, mutual support, cooperative resistance).

Maintaining military bearing[32] is reported to be an important adaptive behavior. During the Vietnam conflict, identification with military ideals unified POWs in spirit and in their determination. The chain of command formalized and solidified the prisoner society in the camps. The need for internal security became more important as the need for communication privacy grew within the POW system. The Military Code of Conduct, which was modified after the Vietnam conflict, provided guidelines for the prisoners of war.

Probably the single most important adaptive behavior in all POW situations is communication. During the Vietnam conflict, a tap code was devel-

EXHIBIT 17-2

PRISONER OF WAR COPING MECHANISMS

- Emphasizing the Greater Good
  - Caring for another
  - Feeling closer to God
  - Focusing on the good
  - Loyalty to country/family/POW group
  - Motivation for life
  - Survival for some purpose
- Defenses
  - Denial
  - Humor
  - Intellectualization
  - Obsessional thinking
  - Rationalization
- Relationship to Captors
  - Collaboration
  - Cultivating relationships with captors
  - Resistance
  - Study guards' habits and use the knowledge to gain favor
  - Withdrawal
- Social
  - Buddy system
  - Chain of command
  - Code of conduct
  - Communication
  - Group activities
  - Group affiliation
  - Military experience
  - Peer pressure
  - Withdrawal
- Conscious Efforts
  - Acceptance of fate
  - Communication
  - Control of panic
  - Discipline
  - Flexibility
  - Maintaining self-respect
  - Maintaining military social structure
  - Physical fitness
  - Realistic expectations
  - Repetitive behaviors
  - Rituals
  - Self-development activities
  - "Talking to family"
  - Well-controlled sensitivity
  - Will to live
- Psychological/Fantasy
  - Apathy
  - Dissociation
  - Fantasies of retaliation
  - Fatalism
  - Hope
  - Idealized expectations of post-release life
  - Introversion
  - Passive-dependence
  - Personality flexibility
  - Psychological regression

oped using a 5 X 5 arrangement of the alphabet (the letter k was not used). The row and column of a letter could then be communicated. Ingenious mechanisms were used to spread messages. Coughing, sweeping, and tapping were all important means of using the code. Additionally, the ability to express one's rage in hidden forms—the now historic picture of the Pueblo crew demonstrating a common American gesture of contempt—can provide release from pent-up rage and hostility. There is a fine line, however, between appropriate resistance and provocative resistance (eg, resistance that unnecessarily increases torture and maltreatment). Such poor-coping high resisters often feel they must never comply even to trivial requests. They can bring torture on themselves and their comrades.

Social Isolation

Social isolation and solitude, usually with darkness and silence, are prominent aspects of the POW camp experience. These experiences can greatly

contribute to the traumatic stress of captivity.[3] Psychological aspects of isolated living in the Antarctic and other contained environments can shed some light on the POW's social isolation, although there are important differences. The most important difference is that the Antarctic experience is voluntary and the POW experience is not.

Participant observers in expeditions to the Antarctic report that social issues are more important than environmental ones in maintaining the well being of the crew. For example, in one study, the individual's adjustment to the group, the "sameness" of the environment, and the absence of social supports were each more significant than coldness, danger, and other environmental hardships in determining psychological adjustment.[46] The number of sexual remarks made by Antarctic crew members correlated with marital status.[47] The order of frequency of sexual remarks were most frequent in those who were separated, followed by newly married, bachelors, and happily married (high to low).

Singer[39] reviewed journalistic accounts written by former Vietnam-era POWs who had spent a great deal of time in solitary confinement. Several mental phenomena were prominent: (*a*) propensity to review one's life with remorse and guilt, (*b*) recall of the past in vivid detail, (*c*) recall of unused academic or intellectual training, (*d*) extraordinarily vivid dreams with prolonged recall upon awakening, (*e*) intense, vivid, long-enduring fantasies (sometimes lasting days), and (*f*) a splitting of attention and awareness.

The firmer a POW's resistance stance, the more time is spent in isolation. In Vietnam, the greater the POW's duration of isolation, the greater the risk of resulting psychopathology.[33,48] Cause and effect relationships, however, are unclear. Resistant, higher ranking, and older POWs spend more time in solitary confinement and are tortured more often because of their leadership and resistance activities. However, it may also be true that individuals whose personality allows them to survive prolonged solitary confinement are more likely to maintain persistent resistance.

The relationship of social isolation to postrepatriation psychiatric morbidity has been considered by several authors. However, it is difficult to separate out the unique contributions of any one stressor to the development of psychopathology. High social isolation correlates with greater captivity stress in general. Ursano[5] and Hunter[6] both report greater rates of psychopathology among those POWs who spent the greatest time in solitary confinement. Hunter examined 100 former Vietnam conflict POWs and concluded that no definitive statement could be made as to any specific psychiatric disorders resulting from social isolation. However, it was found that former POWs from Vietnam who experienced prolonged periods of isolation had significantly more guilt, ambivalence, suggestibility, superego development, and need for achievement than other former POWs.[49–52]

Psychiatric Symptoms During Captivity

Many psychiatric signs, symptoms, and defense mechanisms have been reported by POWs retro-

EXHIBIT 17-3

PSYCHIATRIC SIGNS AND SYMPTOMS RETROSPECTIVELY REPORTED BY PRISONERS OF WAR

- Anxiety
- Appetite loss
- Boredom
- Confusion
- Decreased communication
- Defeatism
- Dependency
- Disorganized self-concept
- Dissociation
- Dysphoric mood
- Fear
- Guilt
- Hyperarousal
- Hypersomnia
- Hypervigilance
- Hypoarousal
- Hyporesponsiveness
- Hyposomnia
- Identification with aggressor
- Neurasthenia
- Out-of-body experiences
- Panic
- Regressive behavior
- Resignation
- Startle response
- Suicidal ideation
- Weight loss

spectively during debriefings. The distinction between an adaptive coping response and a psychiatric symptom may not be clear. Some POWs experience psychiatric symptoms that may lessen their survival chances, increase their suffering, or lay the groundwork for postrepatriation psychopathology. Symptoms such as anxiety, boredom, and dysphoria are common (Exhibit 17-3).[1,2,22,27,28,31,37]

The prevalence of psychiatric diagnoses in POWs during imprisonment is unknown. Some prisoners do appear to meet criteria for major depression. Anxiety disorders are common. Anticipatory or conditioned anxiety may evolve into panic attacks or an exaggerated startle response. Slightly more than one half of the crew of the Pueblo admitted to significant anxiety or depression during captivity.[1] Psychotic withdrawal has also been reported.[53] Organic mental syndromes are of substantial concern. These may be the result of head trauma during aircrew ejection or torture, food and water deprivation, or untreated physical illnesses such as infections.

RESISTANCE

In Vietnam- and Korean-conflict POWs, high resistance was seen more often among those who were older, held captive longer, experienced longer periods of solitary confinement, and received harsher treatment by captors.[33,48] The high resister may also provoke more mistreatment. For example, in Vietnam, POWs who resisted the Oriental custom of bowing were severely punished. In general, these individuals had difficulty adjusting to the need to be passive and compliant. Their rigidity sometimes made life more dangerous for their fellow prisoners as well.

In 1957 Schein[54] examined 759 POWs shortly after repatriation from Korean prison camps. He compared men who (*a*) collaborated, (*b*) actively resisted, and (*c*) took a neutral course. Both resisters and collaborators had significantly longer internments, had been in service longer, were older, and more intelligent. Additionally they showed more psychopathic deviance (Pd scale of the MMPI). Resisters and collaborators, however, did not differ significantly from one another. No differences among the groups were found in rank, civilian occupation, religion, location of home community, or number of parents present in the home.

Singer[55] studied collaboration and resistance after the Korean conflict using projective psychological testing. She reported the counter-intuitive finding that resisters and collaborators were more alike than different. Both showed less capacity to remain uninvolved with the environment. She suggested that what distinguished resisters and collaborators was not individual variables but rather which group they chose to attach to.

Ursano et al[25] identified high resisters in the maximum stress group of Vietnam U.S. Air Force POWs. The high resisters were older, more senior in rank, pilots, and had spent more days as a prisoner. Using MMPI data, the high resisters showed greater energy, were more outgoing and extroverted, and showed less repression, constraint, and denial. In addition, the high resisters were more likely to experience conflict with authority, be more independent, and less socially conforming. In general, therefore, the high resister tended to be independent, energetic, less likely to bind his energy through cognitive mechanisms, and less attached to the group. These findings are in agreement with those from the Korean conflict.[55,56]

In a study of Vietnam era POWs, Hunter and Phelan,[9] found that only one of several personality traits, need for achievement, correlated with resistance posture. Ursano et al[25] examined high resisters who were successful and those who were unsuccessful based on peer ratings ("marginal copers"). They showed that the unsuccessful high resister in Vietnam was similar to the successful high resister demographically but had a greater need to dominate. The unsuccessful high resister was more like the "marginal coper" group. These findings highlight the utility of separating high resisters into successful and unsuccessful groups as identified by their peers. Future studies should distinguish the "good" high resister and the "poor" high resister who might be compelled to resist and put others at risk.

During the Korean conflict, the concept of "brainwashing" received a great deal of attention with prisoners of the Chinese communists. At the time, the common opinion was that the communists were adept at, and scientific about, inducing collaboration. Some individuals, even after release from Chinese prisons, continued to repeat false confessions, insist on their guilt, praise the justice and leniency they had received, and expound communist doctrine.[57] During the Vietnam conflict, no repatriated POWs could clearly be identified as collaborators in the same sense as the Korean con-

flict with the exception of one U.S. Marine who voluntarily remained in Vietnam for several years after the war ended.

The term, "brainwashing," has a mystical, magical quality to it. Even when the concept was popular, there was a call for replacing the term with a more elaborate model of interrogation and indoctrination.[58] Many of the "brainwashing" reports of the era are so emotionally charged they are worthless in expanding scientific knowledge about collaboration.[54] Emotionally laden reports appeared on both ends of the opinion spectrum, some maintaining that no one could resist Chinese brainwashing techniques and some saying that individuals who collaborated with the enemy to any degree were cowards. Extensive study by Segal and others[33] showed there was no magical "brainwashing." The term, "coercive persuasion," was subsequently adopted and is more descriptively correct. Productive studies of collaboration and resistance as psychological and interpersonal processes developed from this debate.

Collaboration (and resistance) is a continuum of behaviors, not an all-or-none phenomenon. POWs collaborate in varying degrees. Most commit trivial acts such as signing peace petitions. A small number may engage in more persistent behaviors such as writing, signing, and soliciting signatures for peace petitions, delivering anti-American lectures to fellow prisoners, or aiding in indoctrination programs.[56] Those POWs who collaborate with the enemy do so in part to eliminate the threat of mistreatment and to receive the benefits of preferential treatment.[33]

The concept of collaboration has limited utility except in extreme cases. In Vietnam, all POWs were "broken." For most, this was a profoundly guilt-inducing experience. As a result of the recognition of every individual's breaking point, new strategies to resist interrogation were based on repetitive fall-back positions and giving minor nonsignificant information when resistance was no longer possible. Part of the importance of the communication network and of the military organization in the POW camp was its ability to provide relief from guilt through knowledge that others had broken. In addition, communication fostered the development of guidelines on resistance stance.

The captor's goals are important in determining how POWs are treated. Disrupting the POWs' organizations and their military command through the isolation of prisoner leaders and commanders decreases the POWs' sense of unity and ability to buffer stress and develop coping strategies. Inducing dependency, debility, and dread (DDD)[42] in the individual POW further produces hyporesponsiveness, disruption of time-spanning processes, and disorganization of the self-concept. These may render the prisoner more susceptible to the captor's influence and demands.

SEQUELAE OF THE POW EXPERIENCE

Medical Illness

The first follow-ups of World War II POWs by Cohen and Cooper[12] found significantly greater mortality in Pacific Theater prisoners primarily due to accidents and tuberculosis. No excess mortality was seen in the European group. Gastrointestinal disorders, psychological problems, ophthalmic changes, cardiac disorders, and the effects of malnutrition and tuberculosis were also noted. Similar increased mortality rates were reported in Australian Pacific Theater POWs.[13] The next study by Nefzger,[14] in the mid-1960s, showed that the early excess mortality was decreasing in the Pacific group. However, Korean conflict POWs still had excess mortality.

In the mid-1960s, Beebe, using both records and questionnaires, assessed medical and psychiatric morbidity in the same World War II and Korean POWs.[11] The U.S. Army veterans taken prisoner in the two World War II theaters of action and in the Korean conflict were compared to each other and to controls on the number of hospital admissions between 1946 and 1965 (1954–1965 for Korean conflict POWs), as well as the number of symptoms, amount of disability, and psychosocial maladjustment in 1966 to 1967. Sequelae of the POW experience were found to be both somatic and psychiatric, and were greatest in Pacific Theater POWs. In European Theater POWs, only psychiatric sequelae were apparent in 1966 to 1967. In the 1970s follow-up, Keehn[15] found no excess mortality.

Although somatic problems were most prevalent in the early years after liberation,[11] they persist even today for Pacific Theater veterans.[59] Tennant found higher rates of duodenal ulcers in former Pacific Theater POWs than in a group of noncombat controls, even at 40 years after World War II.[60] This excess medical morbidity correlates with reported weight loss and nutritional deficiency syndromes

during the POW period. Current nonspecific somatic symptoms, such as fatigue, are more common in World War II Pacific Theater POWs and in Korean conflict POWs than in non-POW veterans of the same eras.[11] Throughout these studies, the psychiatric signs and symptoms remained the more persistent postliberation findings for both Pacific and European groups.

The findings of greater psychiatric than medical morbidity and the differences between Pacific and European Theater POWs were also evident when Veterans Administration (VA) disability award trends, hospital admission rates, and responses on the Cornell Medical Health Index were examined.

There has been considerable debate over the potential etiologic significance of organic factors in post-traumatic psychiatric disorders of POWs and concentration camp survivors. The term, "concentration camp syndrome," was used to describe concentration camp survivors who show emotional lability, dysphoria, depression, anxiety, insomnia, nightmares, intellectual deterioration, and/or neurasthenia. Eitenger proposed that while psychosocial factors are important in the etiology of these symptoms, nutritional deficiencies, head trauma, infections, etc. also play an important role in reducing the resiliency of the brain, decreasing the ability to cope flexibly with captivity, and to recover normally.[61] However, he was examining concentration camp survivors who suffered the most extreme deprivation. Most POWs, except some in the Pacific Theater in World War II, did not suffer the extreme levels of deprivation of the concentration camp. There is both considerable agreement[62,63] and disagreement[61,64,65] over the degree to which biological factors should be emphasized. No findings supportive of the "KZ (concentration camp) syndrome" were seen in Vietnam-era POWs.[66] It appears most likely that the "KZ syndrome" symptoms of organic impairment are related to the most extreme malnutrition and physical trauma that were seen in the concentration camps of World War II.

Psychiatric Illness

Psychiatric responses to the POW experience include a number of disorders as well as less well defined personality changes.[44,67,68] In the following section, the psychiatric responses seen in POWs are briefly reviewed.

Post-Traumatic Stress Disorder

The fact that traumatic stress can be followed by psychiatric sequelae is well established.[3,4] The recurrent combination of intrusive and avoidant symptoms present in individuals with the diagnosis of post-traumatic stress disorder (PTSD) is well documented in groups of former POWs from several theaters of war up to 40 years after release.[69–71] In one study, 67% to 85% of surviving former World War II POWs were found to have met criteria for PTSD at some time since repatriation.[69] The sample, however, may have been biased because the subjects were solicited by mail. Their psychiatric status may not be representative of former POWs who did not volunteer or former World War II POWs at large. However, the results suggest that PTSD is common following severe POW experiences. White found that 85% of his group of POWs from Japanese camps had suffered at least moderately severe PTSD.[72] Japanese POW camp survivors have consistently been reported to have PTSD symptoms more frequently than other POW groups and the symptoms have been more severe.[13,73–78] Speed et al[76] found the strongest predictors of PTSD were the proportion of body weight lost and the degree of torture. In perhaps the best designed follow-up, Page[75] found high rates of persistent PTSD almost 50 years postrepatriation, particularly in Pacific Theater POWs, when compared to a control group.

PTSD may be acute, chronic, or delayed.[69,79] Although some studies suggest that the risk of PTSD decreases with time,[69] there is some evidence of a late-onset PTSD[80] that may differ from early-onset PTSD in etiology and course. Late-onset PTSD may be more likely to be related to symbolic functioning and the use of war experiences as a symbol of present ongoing conflicts.[81] For example, one Vietnam-era POW presented 10 years after repatriation with anxiety and obsessional symptoms occurring at a time of family conflicts over the raising of children. The former POW was experiencing increased recall of the conflict and anger he felt at his roommate in prison for doing things that annoyed him. At that time, he could not respond to his roommate's behavior because they needed each other. The recall of this experience was explained by the former POW's present life conflicts. It was these present life conflicts that were being expressed in the recall of the memories of the POW experience. Chapter 16, Chronic Post-Traumatic Stress Disorder, discusses this in greater detail.

Post-traumatic stress disorder shows considerable comorbidity with other post-traumatic psychiatric disorders. Alcohol abuse is diagnosed in 41% to 64% of patients with PTSD; depression is diagnosed in 8% to 72%.[67] The relationship of drug abuse, antisocial personality disorder and other personality disorders to PTSD is not yet clear. Most studies do not control enough variables to make an accurate assessment. Because POWs undergo prolonged physiologic stress, a high frequency of medicopsychiatric illness and psychophysiologic symptoms are also common.

The MMPI has been used both clinically and for research on former POWs. In a 1986 study comparing World War II POWs of the Pacific Theater with those held in Europe, the highest elevations were found in Pacific POWs on scales measuring hysteria (Hs), depression (D), hypochondriasis (Hy), psychasthenia (Pt), and schizophrenia (Sc).[69] Both groups were clearly distinguishable from a non-POW control group. There have been attempts to develop an MMPI subscale for PTSD in POWs. This scale has been used in Vietnam conflict and World War II veterans. In one study it could not distinguish Japanese from European POW veterans, although PTSD was diagnosed clinically more often in POWs from the Pacific Theater.[73]

Adjustment Disorder

There is a continuum of response to stress. While major psychiatric illness is frequently studied, minor psychopathology, normal responses to stress, and movement toward psychological health are not well studied.[81] Adjustment disorders should be more closely examined as a paradigm for responses to stress. Identification of stressor-related minor psychopathology may reveal a potential focus for psychotherapy. Just as with major psychiatric diagnoses, the frequency of occurrence of adjustment disorder following the POW experience is positively correlated with the duration and severity of captivity.[82]

In a 1981 study of repatriated U.S. Air Force Vietnam conflict POWs, Ursano et al found that adjustment disorders and marital/occupational problems occurred in 17.2% to 18.2% of the sample at repatriation and in 9.2% to 15.8% at 5-year follow-up.[53] These were the most common psychiatric diagnoses. Hall and Malone closely followed six former POWs and their families for 3 years following return from North Vietnam and found that most experienced cognitive, social, work, emotional, and family difficulties for the first 2 years.[83] These problems, in general, eventually resolved and no major psychiatric illnesses occurred in any of these men.

Depression

Paykel's review of the literature in 1978 revealed that the presence of traumatic events increases subsequent lifetime risk for depression 2-fold and for suicide 6-fold.[84] Although some studies suggest that the prevalence of depression may decline after the first years following a traumatic event,[85,86] the prevalence of major depression in World War II Pacific Theater POWs remains higher than in a non-POW control group even 40 years after release.[87,59] Studies of MMPIs in repatriated POWs reveal elevated depression scales.[88] Page et al,[59] using a large national sample of World War II POWs (Europe and Pacific), Korean-era POWs and non-POW comparison groups, found elevated depressive symptomatology on the CES(D) (Center for Epidemiological Studies [Depression]) scale decades after repatriation. POWs who were younger, less well-educated, and who had received harsher treatment were more likely to report depression.[75]

Depression also frequently accompanies PTSD.[67] A history of concurrent or past depression is seen in 8% to 72% of PTSD patients.[89–93] Many PTSD patients respond to antidepressant medications. It is important to differentiate major depression in the former POW from: (*a*) PTSD, (*b*) adjustment disorder with depressed mood, (*c*) subaffective clinical depression (RDC [Research Diagnostic Criteria] "minor depression"),[94] (*d*) organic mood disorder secondary to nutritional, toxic, or traumatic factors, and (*e*) the neurasthenic syndrome commonly reported during and after traumatic events.

Psychoactive Substance Use Disorders

Alcohol misuse appears to be more common in former POWs than demographically related groups.[11,12,14,15] Studies that control for demographic, socioeconomic, and precaptivity psychiatric history, however, are few. There are morbidity data and other evidence that alcohol abuse is problematic in many former POWs, and should be carefully considered during medical and psychiatric examinations. Kluznik et al reported that 40 years after World War II, a postwar diagnosis of alcoholism

was present in 50 of 188 POWs from the Pacific Theater who volunteered for medical and psychiatric examination.[69] Of that group, 67% also had a history of PTSD; therefore, the alcoholism may have been primary or secondary. Alcohol use can be a form of self-medication[95–99] and may suppress nightmares, diminish autonomic hyperactivity, and foster more pleasant nontraumatic fantasies.[97] Alcohol excess frequently accompanies PTSD (41%–80%).[70,87,89–92]

There are few studies of postrepatriation drug abuse in POWs. Potential confounding variables that must be addressed in any such study include demographic data, socioeconomic status, precaptivity substance use, precaptivity prevalence of psychiatric disorders, concurrent psychiatric illness, and presence or absence of captivity-related pain syndromes. Drug abuse following trauma may also represent self-medication of another psychiatric disorder such as depression,[100] an independent phenomenon, or continuation of a preexisting psychoactive substance use disorder. Concurrent drug abuse has been reported in 16% to 50% of veterans with PTSD.[89–92]

Anxiety Disorders

Before DSM-III and the diagnostic category, posttraumatic stress disorder, the most frequent diagnoses given to psychiatrically ill former POWs were anxiety reaction, anxiety state, and anxiety neurosis.[11] Anxiety disorders other than PTSD remain frequent in former World War II POWs (143 of 188 in one study).[31,69,101] Generalized anxiety disorder was most frequently reported (103 of 188) in this group. There was a large degree of overlap with PTSD. In some studies, up to 95% of patients with PTSD meet criteria for at least one other DSM-III-R anxiety disorder.[52,74] Panic attacks and panic disorder are frequent in persons exposed to trauma. Up to half of patients with PTSD also have panic attacks.[102]

Somatoform Disorders

Somatoform disorders, psychophysiologic disorders, and psychiatric disorders due to physical illness associated with POW treatment have all been reported. In one study, 8 of 188 former World War II POWs met criteria for somatization disorder (Briquet's Syndrome), though the severity was usually mild.[69] Interestingly, psychophysiologic disorders present prior to the POW experience do not always recur postrepatriation.[34] Fictitious disorder has been reported in individuals claiming to be POWs. Three men who claimed they were former POWs in Vietnam and reported symptoms of PTSD were found to have never been POWs.[103] For this reason, verifying military history is an important part of the assessment process.

Other Psychiatric Disorders

Adult antisocial behavior, obsessive-compulsive disorder, intermittent explosive disorder, bipolar disorder, schizotypal features, and other psychotic disorders have been reported after trauma.[69,89–92] However, it is unlikely that these disorders are causally related to the POW experience. None of the reports on these disorders adequately control for pre-trauma variables such as psychiatric predisposition, socio-demographic data, or psychoactive substance use patterns.

Personality Change

Personality changes resulting from the POW experience need not be pathological. Many former POWs report that they benefited from captivity,[104] redirecting their goals and priorities and moving toward psychological health.[34,105,106] Particular MMPI profiles have been related to particular POW stressors.[107] In the same manner as the development of psychopathology during and after captivity, nonpathologic personality change appears to be dependent on the nature and severity of the experience at least as much as preexisting personality. As mentioned before, in World War II and Korean conflict POWs a profound apathy syndrome was noticed.[23,24] In contrast, Vietnam-era POWs studied by Ursano[34] showed movement toward character rigidity, decreased interpersonal relatedness, heightened drive to achieve, and the experience of time pressure. Such changes are neither pathological nor beneficial in and of themselves. Sutker et al[107–109] studying Korean conflict POWs found suspiciousness, apprehension, confusion, isolation, detachment, and hostility. Eberly et al[110] found persistent elevated negative affect in World War II POWs 40 years postcaptivity that he interpreted as an adaptational change to accommodate the captivity.

Ursano[34] and Bettelheim[41] have discussed possible reasons for the different personality shifts based on intrapsychic and adaptational shifts. These two types of changes (apathy and rigidity / energy / interpersonal distance) may serve similar adaptive

functions, but which type of change develops may depend on the circumstances of imprisonment, such as the amount of physical torture, chronicity (Vietnam-era POWs experienced longer imprisonments than Korean-era POWs), level of deprivation, opportunity for active and passive expressions of aggression, and the types of threats experienced by the POW. These variables depend on the type of war, socioeconomic conditions of the enemy, political climate, and culture of the captors.

From the intrapsychic perspective, conflict within the ego and superego can be seen as the result of heightened aggressive drives bound up during the captivity situation. Such drives are then discharged through the demanding punitive elements of the superego and/or the ambitious, hard-driving pursuit of goals and ideals embodied in the ego ideal. The apathy syndrome seen in Korean conflict POWs may be partially explained as the result of the punitive superego's victory in this intra-superego conflict. In contrast, heightened aggressive drives can also be discharged in the service of the ego-ideal. In this case, determination, character rigidity, and interpersonal distance may be the result.

PREDICTORS OF PSYCHIATRIC DISTRESS

Severity of Captivity

The severity of captivity is a result of both the duration of imprisonment and the degree of maltreatment and deprivation. The length of captivity alone is not a good measure of captivity severity. World War II Pacific Theater POWs were exposed to significantly greater physical, environmental, and psychological stress than were European Theater POWs. Only 40% of 30,000 POWs held by the Japanese survived the war.[10] Disease and malnutrition were common.[11,14] Mortality, owing largely to tuberculosis, was also higher just after repatriation in the Pacific Theater group.[14] Accidents and liver cirrhosis remained significantly more common for many years. Beebe found a higher number of medical and psychiatric symptoms, disability, and maladjustments in Pacific POWs than in European Theater POWs.[11] The former group continues to have higher hospital admission and illness rates. Higher rates of liver cirrhosis suggest a higher frequency of several hepatic diseases and alcoholism in the Pacific group.[14,16] Page[75] has found continued high rates of psychiatric and medical morbidity in the Pacific group into the 1980s.

In Vietnam, POWs captured prior to 1969 had both longer captivity and substantially more deprivation, torture, and maltreatment.[5,6] Wheatley et al[7] and Ursano et al[53] demonstrated a greater degree of psychiatric readjustment problems in repatriated U.S. Air Force POWs captured before 1969 than in those captured after 1969. Pre-1969 captives had a higher frequency of psychiatric diagnoses and abnormal MMPI scales. The overall MMPI profiles of pre-1969 captives also deviated farther from normal than those captured post-1969 on the initial MMPI. Pre-1969 captives showed increased repression, a higher level of denial, greater suspicion, and more distrust. The post-1969 captives' second MMPI profile 5 years later was lower and looked more like aircrew norms. In contrast, the profile of pre-1969 captives had remained essentially unchanged.

Similar findings were reported by Benson et al,[8] in U.S. Navy and U.S. Army Vietnam era POWs. He divided POWs into four groups: (1) officers captured prior to 1969, (2) enlisted personnel captured prior to 1969, (3) officers captured after 1969, and (4) enlisted personnel captured after 1969. These groups were observed for differences in immediate and delayed post-traumatic psychopathology. Enlisted personnel exhibited significantly more postrepatriation psychopathology than commissioned personnel. Significant improvement was noted between the first and the fifth year follow-up only in officers captured after 1969. These results indicate that after controlling for officer-enlisted status, greater captivity stress, as measured by the duration and intensity of captivity, was associated with more negative psychiatric outcome. Vietnam conflict POWs who were exposed to more prolonged isolation had higher rates of psychiatric disorder than did those who experienced more limited solitary confinement.[111] This further indicates the importance of the severity of the captivity experience as a major predictor of psychiatric disturbance.

Predisposition

Determining the role of precaptivity psychopathology and the contribution of genetic, developmental, and interpersonal factors is a difficult process.[112] When examining a patient psychiatrically, the data are retrospective and subject to the effects

of being filtered over time. The most valuable sources of information to address this issue are written sources prior to the trauma, such as medical records and evaluations.

In addition to individual developmental factors and the role played by recall of traumatic childhood events, certainly genetic predisposition to psychiatric illness helps determine the phenotypic presentation of an individual following trauma. Life events can precipitate major depressive episodes in susceptible individuals.[111,113] A person who is genetically predisposed to mood disorders is certainly at higher risk for depression after having been a POW than a person not genetically predisposed to mood disorders. To address the more interesting question of trauma as a cause of psychiatric illness, this information must be controlled.

Ursano[34,44] examined six repatriated Vietnam conflict POWs who had been coincidentally evaluated psychiatrically before their captivity. Using the precaptivity psychiatric data, he found that preexisting pathology or identifiable predispositions to psychiatric illness were neither necessary nor sufficient for the development of psychiatric illness after repatriation. Further data on the question of predisposition is provided by studies of captured Vietnam era U.S. Air Force fliers. Fliers are selected for their health and are screened for psychiatric illness. Pre-1969 captives were demographically comparable to the post-1969 group and, in fact, might have been expected to show less illness because they were slightly older and more mature. In fact, they had more psychiatric illness. Because this correlates with the greater degree of stress experienced by this group, these data further support the role of stress over predisposition in the development of psychopathology after severe trauma. Together, these data support the view that psychiatric illness may develop after the POW experience without preexisting illness or identifiable predispositions. Most post-traumatic stress disorder theories have underestimated the role of adult personality growth and resiliency and overestimated the role of preexisting personality in determining the outcome of the POW experience.[7,45]

Social Supports

The importance of social interactions, social supports, group activities, and social isolation during captivity has been discussed. Social factors may be as important as environmental ones in determining coping ability during imprisonment and after return.[57] Recovery from captivity includes the repatriation experience which requires adapting to changes in life directions, career, friendships, and sometimes marital status. These stressors are in addition to the need to psychologically integrate the POW experience into one's life story. Most researchers believe that the more external support available to a former POW, the more likely a positive adjustment will occur.

Davidson studied nonclinical groups of Holocaust survivors in Israel and England in order to evaluate the importance of social support systems in protecting concentration camp survivors from psychiatric morbidity and in facilitating recovery.[114] The subjects of the study were 15 men and 15 women who had been in a concentration camp for 1 to 2 years and had lost virtually all their family members. From interviews of these individuals, he drew two conclusions: (1) supportive bonds have a mitigating and protective influence in the aftermath of the traumatic situation, preserving personality functioning, and (2) the definition of psychic trauma should include social trauma.

Both captivity and reunion with the family are stressful for the POW. Lack of reintegration into the family and society appears to result in higher rates of psychopathology.[6,115] The POW/MIA spouse must first adapt to the absence and unknown status of the active duty member and then adjust to the return. For many POW couples, the readjustment is a difficult transition of reestablishing complementary and supportive roles in family authority and nurturance structures.

READJUSTMENT

Repatriation and Reintegration

As mentioned earlier, most former POWs readjust without clinically significant psychopathology. Some actually use the experience to move toward greater psychological health. Sledge et al[104] identified a distinct group of Vietnam POWs who felt they had benefited from the experience. Those individuals who experienced the greatest stress during captivity were most likely to believe they gained psychologically from the experience. Thus, the subjective sense of having benefited from the experience of being a POW correlated positively with the harshness of the experience.

The stages of repatriation and reintegration are not synonymous with "recovery" in the sense of resolution of psychiatric signs and symptoms. The repatriated POW emerges from what is likely to be a prolonged period of emotional blunting, monotony, apathy, withdrawal, and deprivation, into a rapidly paced series of medical evaluations, family reunions, and public relations activities. The brief period of euphoria upon release is quickly replaced by a period of overstimulation. There may be an attempt to make up for things denied during captivity by activities such as overeating. Initially, released POWs are frequently compliant with the requests of the military and their physicians. But over several days to weeks, they usually begin to take a more active and independent stance.[27,28] There is a tendency for the repatriated POW to minimize potential psychological and psychosocial problems caused by his captivity.

In addition, most repatriated POWs, including those from the Persian Gulf War, have had little experience dealing with the media. The media are a substantial stressor that can have lifelong effects if a later, "Wish-I-had-never-said," statement is broadcast around the world. It is very important to both shield the POW and his family from early intrusive media coverage and to offer training in the management of media requests. This was routinely done for the POWs of the Persian Gulf War. Reminding POWs and their families that it is perfectly acceptable for them to say, "No," can be a most important intervention.

After the tumultuous postrelease period, gradual readjustment and reintegration may continue throughout life. Reintegration occurs gradually and the process is subject to reorganization with changing life circumstances.

Organizers in Adult Personality Development

Personality does not stop developing at the end of childhood or even adolescence.[116] The fact that most neurophysiological and neuroanatomic development is finished before adulthood may provide some protection from radical departures in adult personality, but it is clear from animal studies that changes do occur in neurophysiology and even neuroanatomy during adulthood.[19]

Renee Spitz discussed "organizers" of psychological development—important experiences that structure feelings, thoughts, and behaviors of the present and thus influence future development and psychology.[117] The oedipal phase and childhood traumatic events are two examples. These organizing events are evident in psychotherapy when the therapist and patient identify organizing principles of past experience that are used to guide present behavior. It is useful to conceptualize adult traumas, such as being a POW, as a potential independent organizer of adult personality development.[34] The experience may induce psychopathology or personality growth, or it may resonate with themes already present from earlier organizing events or periods. Later, the symbolic recall of the POW events is the result of a current event activating this "organizer." The recall serves as a symbolic vehicle to express the current conflicts and anxieties.

Recovery

Some data support the idea that recovery is faster when POW trauma is less severe. Wheatley and Ursano[7] found that post-1969 POW returnees experienced more complete and rapid return toward normal and toward expected baseline than did POWs who were captured before 1969. The study of recovery as a process is one of the areas of much needed research. Concentration camp survivors have relatively few instances of complete recovery.[118] They continue to experience less stable working lives, more frequent job changes, more frequent domicile changes, longer sick leaves, and more frequent and long-lasting hospitalization periods than controls.[6] World War II Pacific Theater POWs continue to have more medical and psychiatric morbidity and slower rates of clinical recovery than European Theater POWs.[73] In 188 former World War II POWs examined in 1986, 29% were considered to have fully recovered, 39% still reported mild psychiatric symptoms, and 8% had no recovery or had deteriorated, as seen in Table 17-1.[69] Recently, Page[59] has documented the persistence of high rates of PTSD and depression in World War II Pacific Theater POWs almost 50 years after their captivity.

Supportive social bonds appear to mitigate and protect the ex-POW from long-term psychiatric dysfunction.[114] There may be disillusionment with dreams, hopes, and fantasies about what postcaptivity life would be like.[119] A supportive family and social environment can help blunt that disappointment. Lack of social supports (eg, divorce, loss of idealized lifestyle, death of family or friends) can significantly increase the risk for psychopathology in the postrepatriation period.

At the end of the Persian Gulf War, the first U.S. female prisoner of war returned home. The unique aspects of recovery for women POWs will be of increased concern in future conflicts.

TABLE 17-1

LIFETIME PSYCHIATRIC DIAGNOSES AND ILLNESS COURSES OF 188 FORMER WORLD WAR II PRISONERS OF WAR

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Adapted with permission from Kluznik JC, Speed N, VanValkenburg C, Magraw R. Forty-year follow-up of United States prisoners of war. *Am J Psychiatry*. 1986;143:1444.

TREATMENT OF POSTREPATRIATION ILLNESS

Medical Disorders

Diagnosis and treatment of medical disorders from POW captivity is always the first order of business. These disorders can cause psychiatric symptoms that may mimic psychiatric disorders and have significant morbidity and mortality. Repatriated U.S. Marine POWs from Vietnam (N=26) had an average of 12 medical diagnoses at the time of their return, representing 155 separate diagnostic entities.[120] The 77 U.S. Army repatriated Vietnam-era POWs accumulated 1,149 diagnoses and 386 separate diagnostic entities.[121] The most frequent medical diagnoses made in follow-up medical evaluations of repatriated U.S. Air Force POWs from Vietnam were orthopedic, cardiac, and neurologic.[122]

World War II and Korean conflict POWs had higher mortality rates following release than

nonprisoner control groups, owing largely to tuberculosis and effects of physical trauma.[14,15] This excess mortality began to rapidly decline during the first decade following release. However, a current trend toward excess deaths due to liver cirrhosis is emerging, another line of evidence suggesting alcohol misuse remains a problem.[14,15] The confounding factors of malnutrition and parasite infection limit the interpretability of these data. Eitenger compared Norwegian concentration camp survivors and the general population and found significant excess: overall mortality, unstable occupations, job changes, frequency of hospitalizations, sick periods, sick leaves, and the duration of hospitalizations in the concentration camp group.[123]

Nutritional deficiency and physical trauma during captivity increase the risk for postrepatriation medical and psychiatric sequelae.[6,14,15,60,120,124,125] Eitenger maintained that the development of what appeared to be a neurotic outcome, the KZ Syndrome, is actually the result of the extreme organic stressors in the concentration camps.[61]

Because POWs can have lifelong medical morbidity, frequent attention to physical and medical status is important. Yearly physical examinations and monitoring for long-term effects of vitamin deficiencies and malnutrition are important parts of psychiatric follow-up.

Psychiatric Disorders

Debriefing after initial release from captivity[126,127] is now standard treatment. In addition, providing time to learn about how the world has changed and time to become reacquainted with family in a protected environment is important. Briefings to learn how to handle the media are also very important. Group meetings will facilitate discussions and abreaction as well as sharing information about the normal recovery process. This reentry process must be well planned and usually takes one to two weeks or more if possible. Often politics and the POWs' desire to get home shorten this desirable protected stage of recovery. Educating the POW, his or her family, and national leaders may be necessary.

When psychiatric illness exists following captivity, it must be treated. Adjustment disorders are important to diagnose because their evaluation often reveals one or more foci for brief psychotherapy. Treatment is directed toward preventing the development of more severe chronic psychopathology, decreasing the vulnerability to future psychiatric illness, and providing symptomatic relief.

Many forms of psychotherapy have been used in the treatment of post-traumatic stress disorder: supportive, brief focal, behavioral, cognitive, cognitive-behavioral, and long-term insight oriented. The choice of therapy depends on the patient's ability to make use of the treatment as a problem-solving method. Psychodynamic treatments may be of particular import in chronic and late onset PTSD. Five of 12 Cambodian concentration camp survivors who completed a PTSD treatment program combining heterocyclic antidepressants and supportive psychotherapy no longer met criteria for the disorder[128] and symptoms improved in three others. Intrusive symptoms improved more than avoidant symptoms. There have also been numerous reports of spontaneous PTSD symptom resolution 1 to 2 years after repatriation.[69,83]

Some post-traumatic stress disorder symptoms may respond to antidepressant medications. Although no well-controlled studies exist, several case reports and descriptive studies suggest that monoamine oxidase inhibitors, heterocyclic-antidepressants, and a triazolo benzodiazepine (Alprazolam) are effective in ameliorating PTSD symptoms in some patients.[95,97,128–133] The high degree of overlap between PTSD and depression, coupled with the response of some PTSD patients to antidepressant medications, suggests that when there is a positive response to antidepressant medication, it may be because a depressive component is being treated. Many patients, however, say that specific PTSD symptoms such as nightmares, autonomic hyperactivity, and avoidance behaviors improve with drug treatment. In any case, it is important to look for depression. (See Chapter 16 for a further discussion of the pharmacotherapy of PTSD.)

The treatment of depression after trauma must take into account the nature of the symptoms (psychological vs neurovegetative), the presence of a past or family history of depression, the meaning of the traumatic event to the patient, the psychosocial situation at the time of the depression, and the psychological significance of the precipitants of the depressive episode. The particular treatment(s) selected will depend on the biologic vulnerability to depression, severity of neurovegetative symptoms and signs, suitability for psychotherapy, and presence of other psychiatric disorders.

Because alcohol and perhaps other psychoactive substances are often misused following traumatic events, examiners must look closely for behavioral, physiologic, and laboratory evidence of psychoactive substance misuse. Serum glutamic-oxalocetic transaminase (SGOT), serum glutamic-pyruvic tran-

saminase (SGPT), uric acid, triglyceride level, mean corpuscular volume (MCV), hematocrit, and serum gamma-glutamyltranferase (GGT) are valuable in the assessment of current alcohol use. Substance misuse following trauma may be a primary disorder, or as self-medication for the symptoms of other psychiatric disorders.[67,134]

Postrepatriation psychiatric illness may be delayed or episodic.[64] PTSD can be acute, recurrent, chronic, or delayed; alcohol and drug abuse can have similar patterns; depression can be a single episode, recurrent, episodic, or chronic. When recovery appears to have occurred after return home, it may or may not be a permanent condition. Whether recurrent or delayed illnesses are related to symbolic retraumatizations is unknown, but should be considered when evaluating a former POW for treatment.

FAMILY ISSUES

The effect of imprisonment and release on family members and the family system itself can be profound and enduring or minor and transient. One study of POW wives indicated that during the period of captivity, psychological and psychophysiological symptoms were common.[135] Psychological issues included desertion, ambiguity of role, repressed anger, sexuality, censure, and social isolation. Separation anxiety, role distortion, and sleep disorders were common in the children. Male children were significantly more affected than female children.

McCubbin et al interviewed families of 215 U.S. Army, U.S. Navy, and U.S. Marine Corps POWs approximately 1 year prior to the POWs' release.[136] Normal patterns of coping with husband/father absence were disrupted by the unprecedented and indeterminate length of captivity. The social acceptance, stability, and sense of continuity that are taken for granted in the intact family were lacking or severely taxed in the POW family.

Parental preoccupation and overprotectiveness are potential reasons for the occasional presence of higher degrees of overt psychopathology in children of persons exposed to trauma than in the original victim.[137,138] In a study of the offspring of psychiatrically hospitalized concentration camp survivors, 70% had psychopathology severe enough to require hospitalization between the ages of 17 and 22, and 90% prior to the age of 25.[138] A clinical sample of mid-teenage children of concentration camp survivors had more behavioral disturbances and less adequate coping behavior than a clinical control group.[139] A study comparing current effects of long-term father absence during and after the Vietnam conflict due to long-term absence (MIA–missing in action) and temporary absence (POW) revealed significant differences in the children. Both nervous symptoms and community relations were more impaired in the former group.[140]

All of these studies suffer major methodological flaws but should serve as reminders of the potential impact of major life events as they are mediated through parents to children. Adolescents may be particularly sensitive to family tension. Their distress is often visible and can be disruptive in both the family and community.

POW families that present for treatment are frequently in crisis. The resumption of precaptivity roles may be difficult for a mother who has successfully exercised both parental roles for several years, when father has additional individual psychiatric symptoms and/or medical problems, and the children have become accustomed to having their mother to themselves. Treatment focuses on preserving family unity, enhancing the family system, and encouraging individual member development.[141,142]

SUMMARY AND CONCLUSION

The POW has suffered the most severe stressors of war. Repatriated POWs are a select group of survivors who have been able to adapt to captivity and maintain morale, hope, and health for months to years. The ability to communicate with other POWs during captivity is the most important coping strategy. The creative ways in which communication has been established and the content of what is communicated are the basis of many of the POW coping strategies.

Repatriation itself is a stressful event. The POW is faced with the outside world's view of his behavior and situation. He may face a changed world and certainly has much information to catch up on. Some events cannot be "caught up": the birth of a child, the death of a parent, a wife who de-

cided to seek a divorce, or the operational experience necessary to remain current in a profession. These are real losses to which the returning POW must accommodate. Most former POWs adjust well. For some, the experience serves as a personality-organizing focus that results in movement toward emotional growth and maturity, others show no psychological change, while still others develop psychopathology. When psychiatric illness occurs following repatriation, the severity of the trauma and the status of social supports play a large role. Most psychopathology decreases with time, though recurrent, episodic, delayed, and chronic presentations of most of the reported post-traumatic psychiatric disorders are reported.

The stresses on the families of the POW are manifold, both during captivity and after repatriation. The family and the military community are critical elements in the recovery and readaptation of the POW.

Post-traumatic stress disorder, depression, psychoactive substance abuse, somatopsychic disorders, and psychiatric disorders due to captivity-induced medical problems are all seen in returned POWs. The coexistence of two or more of these is the rule. Which is primary or secondary is usually less important than identifying and treating each. Individual psychotherapy (short- and long-term), family therapy, pharmacotherapy, and medical treatment for other diseases and injuries that may have resulted from captivity are all important parts of the medical treatment and follow-up of the former prisoner of war.

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