

Mental Health Issues in Long-Term Solitary and “Supermax” Confinement

Craig Haney

This article discusses the recent increase in the use of solitary-like confinement, especially the rise of so-called supermax prisons and the special mental health issues and challenges they pose. After briefly discussing the nature of these specialized and increasingly widespread units and the forces that have given rise to them, the article reviews some of the unique mental-health-related issues they present, including the large literature that exists on the negative psychological effects of isolation and the unusually high percentage of mentally ill prisoners who are confined there. It ends with a brief discussion of recent caselaw that addresses some of these mental health issues and suggests that the courts, though in some ways appropriately solicitous of the plight of mentally ill supermax prisoners, have overlooked some of the broader psychological problems these units create.

Keywords: *supermax; solitary confinement; effects of imprisonment*

The field of corrections is arguably impervious to much truly significant change. Of all of the institutions in our society, prisons retain the greatest similarity to their early 19th century form. Indeed, until relatively recently, more than a few prisoners were housed in facilities that had been constructed a half century or more ago. Although there have been advances in the methods by which correctional regimes approach the task of changing or rehabilitating prisoners, and a number of improvements made in overall conditions of confinement compared to the 19th century (often brought about by litigation compelling prison systems to modernize and improve), many of the basic facts of prison life have remained relatively constant. Notwithstanding increased sophistication in the technology of incarcerative social control, and the waxing and waning in popularity of one or another kind of prison treatment program, the argument that there has been nothing fundamentally new on the correctional landscape for many years would be difficult to refute.

However, in this article, I suggest that the last decade of the 20th century did see the rise of a new penal form—the so-called supermax prison. Increasing numbers of prisoners now are being housed in a new form of

CRAIG HANEY: University of California, Santa Cruz.

CRIME & DELINQUENCY, Vol. 49 No. 1, January 2003 124-156

DOI: 10.1177/0011128702239239

© 2003 Sage Publications

124

solitary or isolated confinement that, although it resembles the kind of punitive segregation that has been in use since the inception of the prison, has a number of unique features.¹ At the start of the 1990s, Human Rights Watch (1991) identified the rise of supermax prisons as “perhaps the most troubling” human rights trend in U.S. corrections and estimated that some 36 states either had completed or were in the process of creating some kind of “super maximum” prison facility. By the end of the decade, the same organization estimated that there were approximately 20,000 prisoners confined to supermax-type units in the United States (Human Rights Watch, 2000) and expressed even more pointed concerns about their human rights implications. Because most experts agree that the use of such units has increased significantly since then, it is likely that the number of persons currently housed in supermax prisons is considerably higher.

There are few if any forms of imprisonment that appear to produce so much psychological trauma and in which so many symptoms of psychopathology are manifested. Thus, the mental health implications of these units are potentially very significant. Despite the slight (and sometimes not so slight) variations in the ways different state prison systems approach this most restrictive form of confinement, supermax prisons have enough in common to permit some generalizations about what they are, why they have come about, what special mental health issues they raise, and how they might be regulated and reformed to minimize some of the special risks they pose. I will try to address each of these issues in turn in the pages that follow.

SUPERMAX CONDITIONS OF CONFINEMENT

Supermax confinement represents a significant variation in the long-standing practice of placing prisoners in what is known as solitary confinement or punitive segregation. For practical as well as humanitarian reasons, prisoners have rarely been confined in literal or complete solitary confinement.² But prisoners in solitary or isolation have always been physically segregated from the rest of the prison population and typically excluded from much of the normal programming, routines, opportunities, and collective activities available in the mainline institution. By the late 19th century, most jurisdictions in the United States had, for the most part, restricted solitary confinement to relatively brief periods of punishment that were imposed in response to specified infractions of prison rules.³

In contrast to this traditional form of isolation, supermax differs in several important ways—primarily the totality of the isolation, the intended duration of the confinement, the reasons for which it is imposed, and the technological

sophistication with which it is achieved. In particular, supermax prisons house prisoners in virtual isolation and subject them to almost complete idleness for extremely long periods of time. Supermax prisoners rarely leave their cells. In most such units, an hour a day of out-of-cell time is the norm. They eat all of their meals alone in the cells, and typically no group or social activity of any kind is permitted.⁴

When prisoners in these units are escorted outside their cells or beyond their housing units, they typically are first placed in restraints—chained while still inside their cells (through a food port or tray slot on the cell door)—and sometimes tethered to a leash that is held by an escort officer. They are rarely if ever in the presence of another person (including physicians and psychotherapists) without being in multiple forms of physical restraints (e.g., ankle chains, belly or waist chains, handcuffs). Supermax prisoners often incur severe restrictions on the nature and amounts of personal property they may possess and on their access to the prison library, legal materials, and canteen. Their brief periods of outdoor exercise or so-called yard time typically take place in caged-in or cement-walled areas that are so constraining they are often referred to as “dog runs.” In some units, prisoners get no more than a glimpse of overhead sky or whatever terrain can be seen through the tight security screens that surround their exercise pens.

Supermax prisoners are often monitored by camera and converse through intercoms rather than through direct contact with correctional officers. In newer facilities, computerized locking and tracking systems allow their movement to be regulated with a minimum of human interaction (or none at all). Some supermax units conduct visits through videoconferencing equipment rather than in person; there is no immediate face-to-face interaction (let alone physical contact), even with loved ones who may have traveled great distances to see them. In addition to “video visits,” some facilities employ “tele-medicine” and “tele-psychiatry” procedures in which prisoners’ medical and psychological needs are addressed by staff members who “examine” them and “interact” with them over television screens from locations many miles away.

Supermax prisons routinely keep prisoners in this near-total isolation and restraint for periods of time that, until recently, were unprecedented in modern corrections. Unlike more traditional forms of solitary confinement in which prisoners typically are isolated for relatively brief periods of time as punishment for specific disciplinary infractions, supermax prisoners may be kept under these conditions for years on end. Indeed, many correctional systems impose supermax confinement as part of a long-term strategy of correctional management and control rather than as an immediate sanction for discrete rule violations.

In fact, many prisoners are placed in supermax not specifically for what they have done but rather on the basis of who someone in authority has judged them to be (e.g., “dangerous,” “a threat,” or a member of a “disruptive” group). In many states, the majority of supermax prisoners have been given so-called indeterminate terms, usually on the basis of having been officially labeled by prison officials as gang members. An indeterminate supermax term often means that these prisoners will serve their entire prison term in isolation (unless they debrief by providing incriminating information about other alleged gang members).⁵ Prisoners in these units may complete their prison sentence while still confined in supermax and be released directly back into the community. If and when they are returned to prison on a parole violation or subsequent conviction, they are likely to be sent immediately back to supermax because of their previous status as a supermax prisoner.

To summarize: prisoners in these units live almost entirely within the confines of a 60- to 80-square-foot cell, can exist for many years separated from the natural world around them and removed from the natural rhythms of social life, are denied access to vocational or educational training programs or other meaningful activities in which to engage, get out of their cells no more than a few hours a week, are under virtually constant surveillance and monitoring, are rarely if ever in the presence of another person without being heavily chained and restrained, have no opportunities for normal conversation or social interaction, and are denied the opportunity to ever touch another human being with affection or caring or to receive such affection or caring themselves. Because supermax units typically meld sophisticated modern technology with the age-old practice of solitary confinement, prisoners experience levels of isolation and behavioral control that are more total and complete and literally dehumanized than has been possible in the past. The combination of these factors is what makes this extraordinary and extreme form of imprisonment unique in the modern history of corrections. Its emergence in a society that prides itself on abiding “evolving standards of decency” (*Trop v. Dulles*, 1958) to regulate its systems of punishment requires some explanation.

THE ORIGINS OF THE MODERN SUPERMAX

Two important trends in modern American corrections help to account for the creation of this new penal form. The first is the unprecedented growth in the prison population that started in the mid-1970s and continued into the early years of the 21st century. The rate of incarceration in the United States (adjusting for any increases in overall population) remained stable over the

50-year period from 1925 to 1975. Remarkably, it then quintupled over the next 25-year period. Most state prison systems doubled in size and then doubled again during this period, with no commensurate increase in the resources devoted to corrections in general or to programming and mental health services in particular (Haney & Zimbardo, 1998).

This dramatic influx of prisoners—and the overcrowding crisis it produced—occurred at approximately the same time that another important change was underway. In the mid-1970s, the United States formally abandoned its commitment to the rehabilitative ideals that had guided its prison policy for decades. Often at the insistence of the politicians who funded their prison systems, correctional administrators embraced a new philosophy built on the notion that incarceration was intended to inflict punishment and little else. The mandate to provide educational, vocational, and therapeutic programming in the name of rehabilitation ended at an especially inopportune time (Haney, 1997). Prisons throughout the country were filled to capacity and beyond, and the prisoners who were crowded inside had few opportunities to engage in productive activities or to receive help for preexisting psychological or other problems.

Under these conditions of unprecedented overcrowding and unheard of levels of idleness, prison administrators lacked positive incentives to manage the inevitable tensions and conflicts that festered behind the walls. In systems whose *raison d'être* was punishment, it was not surprising that correctional officials turned to punitive mechanisms in the hope of buttressing increasingly tenuous institutional controls. Of course, disciplinary infractions often were met with increasing levels of punishment in the modern American prison, even before these trends were set in motion. But the magnitude of the problem faced by correctional administrators in the 1980s pushed their response to an unprecedented level. Supermax prisons emerged in this context—seized on as a technologically enhanced tightening screw on the pressure cooker-like atmosphere that had been created inside many prison systems in the United States. As the pressure from overcrowding and idleness increased, the screw was turned ever tighter.

Historically, correctional polices often harden in times of prison crisis. But once the problem causing the increased tension or turmoil has been identified and resolved, the punitive response typically de-escalates, sometimes leading to even more hospitable conditions and treatment. Unfortunately, the prison overcrowding problem did not subside during the 1980s and 1990s, and the continued punitive atmosphere that marked this period meant that corrections officials were in no position to look “soft” in the face of the crisis.

The politics of the era deprived prison administrators of alternative approaches and guaranteed a one-way ratcheting up of punishment in the face of these tensions. They became increasingly committed to more forcibly subduing prisoners whose behavior was problematic (“a threat to the safety and security of the institution”), taking fewer chances with others whom they suspected might be a problem, and set about intimidating everyone else who might be thinking about causing disruption. Supermax simultaneously provided politicians with another stark symbol to confirm their commitment to tough-on-crime policies (Riveland, 1999) and gave prison officials a way of making essentially the same statement behind the walls.

I belabor this recent correctional history to debunk several myths that surround the rise of the supermax prison form. This new kind of prison did not originate as a necessary or inevitable response or backlash to some sort of “permissive” correctional atmosphere that allegedly prevailed in the 1960s, as some who defend the recent punitive trends in imprisonment have suggested (cf. O’Brien & Jones, 1999). It was not a badly needed corrective to liberal prison policies or to previous capitulations to the prisoners’ rights movement. Quite the opposite. Supermaxes began in response to the overcrowded and punitive 1980s and came into fruition in the even more overcrowded and more punitive 1990s. They are in many ways the logical extension of a system founded on the narrow premise that the only appropriate response to misbehavior is increased punishment.

In addition, there is no evidence that the rise of supermax prisons was driven by the threat of some new breed of criminal or prisoner. The natural human tendency to individualize, dispositionalize, and sometimes even to demonize problematic behavior, and to ignore the contextual forces that help create it, is intensified in prison systems as perhaps nowhere else. Thus, when correctional officials faced unprecedented pressures from dramatically increased levels of overcrowding and idleness, they naturally ignored the contextual origins of the problem (over which they had little or no control) and blamed the prisoners (over which they did).

But, even if supermax prisons now contain only “the worst of the worst”⁶—a phrase that is often used to justify the use of these newly designed units but whose accuracy is hotly disputed by their critics—there is no evidence that these allegedly “worst” prisoners are any worse than those who had been adequately managed by less drastic measures in the past. In assessing the benefits and burdens of supermax confinement, it is important to keep in mind that correctional officials have not been given a mandate to engage in such extraordinarily punitive and unprecedented measures because they now

confront not only an extraordinarily dangerous but new strain of prisoner that has never before existed. There is no such new breed and no such mandate.

*THE PSYCHOLOGICAL PAINS
OF SUPERMAX CONFINEMENT*

In assessing the mental health concerns raised by supermax prisons, it is important to acknowledge an extensive empirical literature that clearly establishes their potential to inflict psychological pain and emotional damage. Empirical research on solitary and supermax-like confinement has consistently and unequivocally documented the harmful consequences of living in these kinds of environments. Despite some methodological limitations that apply to some of the individual studies, the findings are robust. Evidence of these negative psychological effects comes from personal accounts, descriptive studies, and systematic research on solitary and supermax-type confinement, conducted over a period of four decades, by researchers from several different continents who had diverse backgrounds and a wide range of professional expertise. Even if one sets aside the corroborating data that come from studies of psychologically analogous settings—research on the harmful effects of acute sensory deprivation (e.g., Hocking, 1970; Leiderman, 1962), the psychological distress and other problems that are created by the loss of social contact such as studies of the pains of isolated, restricted living in the free world (e.g., Chappell & Badger, 1989; Cooke & Goldstein, 1989; Harrison, Clearwater, & McKay, 1989; Rathbone-McCuan & Hashimi, 1982), or the well-documented psychiatric risks of seclusion for mental patients (e.g., Fisher, 1994; Mason, 1993)—the harmful psychological consequences of solitary and supermax-type confinement are extremely well documented.

Specifically, in case studies and personal accounts provided by mental health and correctional staff who worked in supermax units, a range of similar adverse symptoms have been observed to occur in prisoners, including appetite and sleep disturbances, anxiety, panic, rage, loss of control, paranoia, hallucinations, and self-mutilations (e.g., Jackson, 1983; Porporino, 1986; Rundle, 1973; Scott, 1969; Slater, 1986). Moreover, direct studies of prison isolation have documented an extremely broad range of harmful psychological reactions. These effects include increases in the following potentially damaging symptoms and problematic behaviors: negative attitudes and affect (e.g., Bauer, Priebe, Haring, & Adamczak, 1993; Hilliard, 1976; Koch, 1986; Korn, 1988a, 1988b; Miller & Young, 1997; Suedfeld, Ramirez, Deaton, & Baker-Brown, 1982), insomnia (e.g., Bauer et al., 1993; Brodsky &

Scogin, 1988; Haney, 1993; Koch, 1986; Korn, 1988a, 1988b), anxiety (e.g., Andersen et al., 2000; Brodsky & Scogin, 1988; Grassian, 1983; Haney, 1993; Hilliard, 1976; Koch, 1986; Korn, 1988a, 1988b; Toch, 1975; Volkart, Dittrich, Rothenfluh, & Werner, 1983; Walters, Callagan, & Newman, 1963), panic (e.g., Toch, 1975), withdrawal (e.g., Cormier & Williams, 1966; Haney, 1993; Miller & Young, 1997; Scott & Gendreau, 1969; Toch, 1975; Waligora, 1974), hypersensitivity (e.g., Grassian, 1983; Haney, 1993; Volkart, Dittrich, et al., 1983), ruminations (e.g., Brodsky & Scogin, 1988; Haney, 1993; Korn, 1988a, 1988b; Miller & Young, 1997), cognitive dysfunction (e.g., Brodsky & Scogin, 1988; Grassian, 1983; Haney, 1993; Koch, 1986; Korn, 1988a, 1988b; Miller & Young, 1997; Suedfeld & Roy, 1975; Volkart, Dittrich, et al., 1983), hallucinations (e.g., Brodsky & Scogin, 1988; Grassian, 1983; Haney, 1993; Koch, 1986; Korn, 1988a, 1988b; Suedfeld & Roy, 1975), loss of control (e.g., Grassian, 1983; Haney, 1993; Suedfeld & Roy, 1975; Toch, 1975), irritability, aggression, and rage (e.g., Bauer et al., 1993; Brodsky & Scogin, 1988; Cormier & Williams, 1966; Grassian, 1983; Haney, 1993; Hilliard, 1976; Koch, 1986; Miller & Young, 1997; Suedfeld et al., 1982; Toch, 1975), paranoia (e.g., Cormier & Williams, 1969; Grassian, 1983; Volkart, Dittrich, et al., 1983), hopelessness (e.g., Haney, 1993; Hilliard, 1976), lethargy (e.g., Brodsky & Scogin, 1988; Haney, 1993; Koch, 1986; Scott & Gendreau, 1969; Suedfeld and Roy, 1975), depression (e.g., Andersen et al., 2000; Brodsky & Scogin, 1988; Haney, 1993; Hilliard, 1976; Korn, 1988a, 1988b), a sense of impending emotional breakdown (e.g., Brodsky & Scogin, 1988; Grassian, 1983; Haney, 1993; Koch, 1986; Korn, 1988a, 1988b; Toch, 1975), self-mutilation (e.g., Benjamin & Lux, 1975; Grassian, 1983; Toch, 1975), and suicidal ideation and behavior (e.g., Benjamin & Lux, 1975; Cormier & Williams, 1966; Grassian, 1983; Haney, 1993).

In addition, among the correlational studies of the relationship between housing type and various incident reports, again, self-mutilation and suicide are more prevalent in isolated housing (e.g., Hayes, 1989; Johnson, 1973; A. Jones, 1986; Porporino, 1986), as are deteriorating mental and physical health (beyond self-injury), other-directed violence, such as stabbings, attacks on staff, and property destruction, and collective violence (e.g., Bidna, 1975; Edwards, 1988; Kratcoski, 1988; Porporino, 1986; Sestoft, Andersen, Lilleback, & Gabrielsen, 1998; Steinke, 1991; Volkart, Rothenfluh, Kobelt, Dittrich, & Ernst, 1983). The use of extreme forms of solitary confinement in so-called brainwashing and torture also underscores its painful, damaging potential (e.g., Deaton, Burge, Richlin, & Latrownik, 1977; Foster, 1987; Hinkle & Wolff, 1956; Riekert, 1985; Shallice, 1974; Vrca, Bozиков, Brzovic, Fuchs, & Malinar, 1996; West, 1985). In fact, many

of the negative effects of solitary confinement are analogous to the acute reactions suffered by torture and trauma victims, including post-traumatic stress disorder or PTSD (e.g., Herman, 1992, 1995; Horowitz, 1990; Hougen, 1988; Siegel, 1984) and the kind of psychiatric sequelae that plague victims of what are called “deprivation and constraint” torture techniques (e.g., Somnier & Genefke, 1986).

To summarize, there is not a single published study of solitary or supermax-like confinement in which nonvoluntary confinement lasting for longer than 10 days, where participants were unable to terminate their isolation at will, that failed to result in negative psychological effects. The damaging effects ranged in severity and included such clinically significant symptoms as hypertension, uncontrollable anger, hallucinations, emotional breakdowns, chronic depression, and suicidal thoughts and behavior. Of course, it is important to emphasize that not all supermax prisons are created equal, and not all of them have the same capacity to produce the same number and degree of negative psychological effects. Research on the effects of social contexts and situations in general and institutional settings in particular underscores the way in which specific conditions of confinement do matter. Thus, there is every reason to expect that better-run and relatively more benign supermax prisons will produce comparatively fewer of the preceding negative psychological effects, and the worse run facilities will produce comparatively more.

*THE PREVALENCE OF PAIN
AND SUFFERING IN SUPERMAX*

In addition to the serious nature and wide range of adverse symptoms that have been repeatedly reported in a large number of empirical studies, it is important to estimate their prevalence rates—that is, the extent to which prisoners who are confined in supermax-type conditions suffer its adverse effects. My own research at California’s Pelican Bay “security housing unit” (or SHU)—a prototypical supermax prison at the time these data were collected—provides one such estimate. In this section, I describe this research in some detail and situate its findings by comparing them to prevalence rates among several other relevant groups.

In the Pelican Bay study, each prisoner was individually assessed in face-to-face interviews. Because the sample of 100 SHU prisoners was randomly selected, the data are representative of and, within appropriate margins of error, generalizable to the entire group of prisoners at this supermax facility.⁷ The following two important areas were explored in each interview. In the

TABLE 1: Symptoms of Psychological and Emotional Trauma

<i>Symptom</i>	<i>% Presence Among Pelican Bay SHU Prisoners</i>
Anxiety, nervousness	91
Headaches	88
Lethargy, chronic tiredness	84
Trouble sleeping	84
Impending nervous breakdown	70
Perspiring hands	68
Heart palpitations	68
Loss of appetite	63
Dizziness	56
Nightmares	55
Hands trembling	51
Tingling sensation ^a	19
Fainting	17

NOTE: SHU = security housing unit.

a. Not necessarily a symptom of psychological trauma. It is included as a control question to provide a baseline against which to measure the significance of the trauma-related responses.

first, one series of questions focused on whether the prisoner experienced any of 12 specific indices of psychological trauma or distress. A list of those symptoms regarded as reliable indicators of general psychological distress was employed. They were essentially the same indices of distress that Jones (1976) and others have used to assess mainline prison populations. In the second, a different series of questions was designed to determine whether the prisoner suffered any of 13 specific psychopathological effects of isolation. Based on previous research conducted by Grassian (1983) and others (e.g., Brodsky & Scogin, 1988; Korn, 1988a, 1988b), a list of isolation-related symptoms was developed and used to assess each prisoner in this regard.

The results of this prevalence study are depicted in Tables 1 and 2. As Table 1 indicates, every symptom of psychological distress but one (fainting spells) was suffered by more than half of the representative sample of supermax prisoners. Two thirds or more of the prisoners reported being bothered by many of these symptoms in the SHU, and some were suffered by nearly everyone. For example, virtually all of the isolated prisoners were plagued by nervousness and anxiety, by chronic lethargy, and a very high percentage (70%) felt themselves on the verge of an emotional breakdown. In addition, a very high number suffered from headaches and troubled sleep, and more than half were bothered by nightmares. Well over half of the supermax prisoners reported a constellation of symptoms—headaches, trembling, sweaty palms, and heart palpitations—that is commonly associated with hypertension.

TABLE 2: Psychopathological Effects of Prolonged Isolation

<i>Symptom</i>	<i>% Presence Among Pelican Bay SHU Prisoners</i>
Ruminations	88
Irrational anger	88
Oversensitivity to stimuli	86
Confused thought process	84
Social withdrawal	83
Chronic depression	77
Emotional flatness	73
Mood, emotional swings	71
Overall deterioration	67
Talking to self	63
Violent fantasies	61
Perceptual distortions	44
Hallucinations	41
Suicidal thoughts	27

NOTE: SHU = security housing unit.

As Table 2 shows, the psychopathological symptoms of isolation were even more prevalent among these prisoners. Almost all of the supermax prisoners reported suffering from ruminations or intrusive thoughts, an oversensitivity to external stimuli, irrational anger and irritability, confused thought processes, difficulties with attention and often with memory, and a tendency to withdraw socially to become introspective and avoid social contact. An only slightly lower percentage of prisoners reported a constellation of symptoms that appeared to be related to developing mood or emotional disorders—concerns over emotional flatness or losing the ability to feel, swings in emotional responding, and feelings of depression or sadness that did not go away. Finally, sizable minorities of supermax prisoners reported symptoms that are typically only associated with more extreme forms of psychopathology—hallucinations, perceptual distortions, and thoughts of suicide.

To put both sets of figures in perspective, it is possible to compare these prevalence rates with those derived from other populations in which similar assessments have been made. For example, Dupuy, Engel, Devine, Scanlon, and Querec (1970) assessed some similar indices of psychological distress with a representative national probability sample of more than 7,000 persons. More recent data focusing on similar indices of psychopathology were collected in Epidemiologic Catchment Area Study (ECAS), a multisite study in which the diagnostic interview schedule (DIS) was used to assess the prevalence of psychiatric symptoms in the population at large (Robins & Regier,

1991). Finally, even more extensive comparisons are possible with another systematic study of the effects of living under isolated prison conditions—Brodsky and Scogin's (1988) research on prisoners confined in two maximum security protective custody units.

Table 3 contains a summary of the comparisons between the prevalence rates found in the two studies of nonincarcerated normal populations, Brodsky and Scogin's protective custody prisoners, and the supermax sample from Pelican Bay SHU (of course, along only those dimensions measured in each of the respective studies). The contrasts with the nonincarcerated normal samples are striking. As would be expected, in almost every instance, the prevalence rates for indices of psychological distress and psychopathology in the samples from the general population are quite low. The only exceptions were for anxiety and nervousness, which Dupuy et al. (1970) found in 45% of their normal sample, and depression, which Robins and Regier (1991) found in almost a quarter of the persons they assessed. Otherwise, the indices of distress and symptoms of psychopathology occurred in less than 20% of the nonincarcerated samples. On the other hand, in both of the isolated prisoner populations, the prevalence rates were well above 50% on virtually all of the measured dimensions. For certain symptoms, rates for the prisoner samples were five to ten or more times as high.

In fact, in both comparative and absolute terms, the prevalence rates were extremely high for the supermax prisoner sample and exceeded even those reported for the protective custody prisoners. Conditions of confinement for protective custody prisoners are in many ways similar to those in supermax confinement. That is, they are typically segregated from the rest of the prison population, restricted or prohibited from participating in prison programs and activities, and often housed indefinitely under what amount to oppressive and isolated conditions. Unlike supermax prisoners per se, however, many have some control over their status as protective custody (PC) prisoners (e.g., many have "volunteered" for this status) and, although they live under the stigma of being PC prisoners, they are technically housed in these units for protection rather than for punishment.

Accordingly, Brodsky and Scogin (1988) found high rates of psychological trauma among their sample of protective custody prisoners, so much so that they worried about the "strong potential for harmful effects" that such confinement represented (p. 279).⁸ They also observed, in terms that apply equally well to supermax prisoners, that "when inmates are subjected to extensive cell confinement and deprivation of activities and stimulation, a majority can be expected to report moderate to serious psychological symptoms" (p. 279). Yet, note that on 16 of 18 possible comparisons, the symptom prevalence rate for Pelican Bay SHU prisoners are greater than those reported

TABLE 3: Comparison of Prevalence Rates Between in Normal, Protective Custody and Supermax Populations

<i>Description</i>	<i>% Normal Dupuy, Engel, Devine, Scanlon, and Querec's (1970) National Probability Sample of 7,000 Adults</i>	<i>% Normal Robins and Regier's (1991) Multisite Assessment of 20,000 Adults</i>	<i>% Protective Housing Brodsky and Scoggin's (1988) Sample of 31 Prisoners in Protective Housing</i>	<i>% Supermax Haney's (1993) Random Sample of 100 Prisoners in Security Housing Unit</i>
Symptoms of psychological trauma				
Anxiety, nervousness	45		84	91
Headaches	13.7		61	88
Lethargy, chronic tiredness	16.8		65	84
Trouble sleeping	16.8		61	84
Impending breakdown	7.7		48	70
Perspiring hands	17		45	68
Heart palpitations	3.7		39	68
Dizziness	7.1		45	56
Nightmares	7.6		42	55
Hands trembling	7		39	51
Fainting			0	17
Psychopathological effects of isolation				
Ruminations			74	88
Irrational anger		2.9	71	88
Confused thought process		10.8	65	84
Chronic depression		23.5	77	77
Overall deterioration			52	67
Talking to self			68	63
Hallucinations		1.7	42	41

in the protective custody study. Note also that many of the percentage differences are comparatively large. In fact, the Pelican Bay prevalence rates are, on average, 14.5% greater than those reported for the prisoners in Brodsky and Scogin's study.

The prevalence data collected in the Pelican Bay study partially address another important supermax-related issue. Several mental health experts have written about a distinct set of reactions or a syndrome-like condition that occurs in prisoners who have been subjected to long-term isolation. Canadian psychiatrist George Scott (1969) described what he termed "isolation sickness" as coming from "prolonged solitary confinement" (p. 3). In more recent research, it has been labeled "RES" (reduced environmental stimulation) or "SHU" (security housing unit) syndrome. Perhaps the most detailed clinical description of the disorder came from psychiatrist Stuart Grassian (1983), who observed that it included massive free-floating anxiety, hypersensitivity to external stimulation, perceptual distortions or hallucinations, derealization experiences, difficulties with concentration or memory, acute confusional states, aggressive fantasies, paranoia, and motor excitement (that may include violent or self-destructive outbursts).

Because the Pelican Bay prevalence study was not designed to directly diagnose SHU syndrome, prisoners were not questioned about literally each one of its indices. However, the study found that a very high percentage of Pelican Bay prisoners suffered many symptoms similar to the ones Grassian had identified. Specifically, a high percentage of prisoners in the present study reported suffering from heightened anxiety (91%), hyper-responsivity to external stimuli (86%), difficulty with concentration and memory (84%), confused thought processes (84%), wide mood and emotional swings (71%), aggressive fantasies (61%), perceptual distortions (44%), and hallucinations (41%). Moreover, fully 34% of the sample experienced all eight of these symptoms, and more than half (56%) experienced at least five of them.

THE SOCIAL PATHOLOGIES OF SUPERMAX

The Pelican Bay prevalence study and the other direct studies of the psychological effects of supermax confinement I cited earlier focused on discrete and measurable consequences of this form of imprisonment. The tools used to provide these measurements are extremely useful and scientifically appropriate methods for documenting specific reactions and symptoms. However, they have some inherent limitations that may mask some of the subtle yet important transformations that are brought about by supermax confinement.

For one, indices of measurable harm generally rely on things that persons must be aware of in order to report. Obviously, prisoners must be consciously pained or in distress over a symptom in order to complain about it; the greater their conscious awareness, the higher the frequency and extent of negative effects. However, in the course of adjusting and adapting to the painful and distressing conditions of confinement, many prisoners will strive to essentially “get used to it,” adapting and accommodating to make their day-to-day misery seem more manageable. In addition, some supermax prisoners will undergo forms of psychological deterioration of which they are unaware and, therefore, incapable of reporting. As long as the deterioration is not obvious or disabling, it is likely to escape the attention of mental health staff who, in most units, rarely perform careful psychiatric assessments on a routine basis for prisoners who appear to be otherwise minimally functioning.

Indeed, it is not uncommon to encounter a number of supermax prisoners who, although they voice few specific complaints and are not identified by staff as having any noticeable psychological problems or needs, nonetheless have accommodated so profoundly to the supermax environment that they may be unable to live anywhere else. In some instances, these changes are difficult to measure because prisoners are unaware that they are occurring or because they have blunted their perception that such transformations are underway. In other instances, the changes are too broad, complicated, and subtle to be precisely measured. Yet they appear to have lasting mental health implications.

Thus, a number of significant transformations occur in many long-term supermax prisoners that, although they are more difficult to measure, may be equally if not more problematic for their future health and well-being and the health and well-being of those around them. These come about because in order to survive the rigors of supermax, many prisoners gradually change their patterns of thinking, acting, and feeling. Some of these transformations have the potential to rigidify, to become deeply set ways of being, that are, in varying degrees for different people, more or less permanent changes in who these prisoners are and, once they are released from supermax, what they can become. Because they do not represent clinical syndromes per se, and because they constitute patterns of social behavior that are largely “functional” under conditions of isolation—for the most part becoming increasingly dysfunctional only if they persist on return to more normal social settings—I have termed them “social pathologies.”

Several of the social pathologies that can and do develop in prisoners who struggle to adapt to the rigors of supermax confinement are discussed below.

First, the unprecedented totality of control in supermax units forces prisoners to become entirely dependent on the institution to organize their exist-

tence. Although this is a potential consequence of institutionalization or “prisonization” in general (e.g., Haney, in press), it occurs to an exaggerated degree in many supermax prisons. Thus, many prisoners gradually lose the ability to initiate or to control their own behavior, or to organize their own lives. The two separate components of this reaction—problems with the self-control and self-initiation of behavior—both stem from the extreme over-control of supermax. That is, all prisoners in these units are forced to adapt to an institutional regime that limits virtually all aspects of their behavior. Indeed, one of the defining characteristics of supermax confinement is the extent to which it accomplishes precisely that. But because almost every aspect of the prisoners’ day-to-day existence is so carefully and completely circumscribed in these units, some of them lose the ability to set limits for themselves or to control their own behavior through internal mechanisms. They may become uncomfortable with even small amounts of freedom because they have lost the sense of how to behave in the absence of constantly enforced restrictions, tight external structure, and the ubiquitous physical restraints.

Second, prisoners may also suffer a seemingly opposite reaction that is caused by the same set of circumstances. That is, they may begin to lose the ability to initiate behavior of any kind—to organize their own lives around activity and purpose—because they have been stripped of any opportunity to do so for such prolonged periods of time. Chronic apathy, lethargy, depression, and despair often result. Thus, as their personal initiative erodes, prisoners find themselves unable to begin even mundane tasks or to follow through once they have begun them. Others find it difficult to focus their attention, to concentrate, or to organize activity. In extreme cases, prisoners may literally stop behaving. In either event, it is hard to imagine a set of adaptations more dysfunctional and problematic for persons who will one day be expected to exercise increased self-control and self-initiative in mainline prison settings or in the free world, if and when they are released there.

Third, the absence of regular, normal interpersonal contact and any semblance of a meaningful social context creates a feeling of unreality that pervades one’s existence in these places. Because so much of our individual identity is socially constructed and maintained, the virtually complete loss of genuine forms of social contact and the absence of any routine and recurring opportunities to ground one’s thoughts and feelings in a recognizable human context leads to an undermining of the sense of self and a disconnection of experience from meaning. Supermax prisoners are literally at risk of losing their grasp on who they are, of how and whether they are connected to a larger social world. Some prisoners act out literally as a way of getting a reaction from their environment, proving to themselves that they are still alive and

capable of eliciting a genuine response—however hostile—from other human beings.

Fourth, the experience of total social isolation can lead, paradoxically, to social withdrawal for some supermax prisoners. That is, they recede even more deeply into themselves than the sheer physical isolation of supermax has imposed on them. Some move from, at first, being starved for social contact to, eventually, being disoriented and even frightened by it. As they become increasingly unfamiliar and uncomfortable with social interaction, they are further alienated from others and made anxious in their presence. In extreme cases, another pattern emerges: This environment is so painful, so bizarre and impossible to make sense of, that they create their own reality—they live in a world of fantasy instead.

Fifth, and finally, the deprivations, restrictions, the totality of control, and the prolonged absence of any real opportunity for happiness or joy fills many prisoners with intolerable levels of frustration that, for some, turns to anger and then even to uncontrollable and sudden outbursts of rage. Others channel their supermax-created anger in more premeditated ways. Many supermax prisoners ruminate in the course of the countless empty hours of uninterrupted time during which they are allowed to do little else. Some occupy this idle time by committing themselves to fighting against the system and the people that surround, provoke, deny, thwart, and oppress them. There are supermax prisoners who become consumed by the fantasy of revenge, and others lash out against those who have treated them in ways they regard as inhumane. Sadly, there are some supermax prisoners who are driven by these deprived and oppressive conditions to pursue courses of action that further ensure their continued deprivation and oppression.

Although I have described these social pathologies as separate and distinct adaptations, they are not mutually exclusive. Thus, prisoners may move through one or another adaptation to their extraordinarily stressful life in supermax, or engage in several at once in an attempt to reduce the pains of their confinement and to achieve a tolerable equilibrium in this otherwise psychologically hostile environment. In fact, in extreme cases and over a long period of time, a combination of seemingly adaptive responses may coalesce into a more or less permanent lifestyle, one lived so exclusively and with such commitment that the prisoner's very being seems to be transformed. For example, some supermax prisoners whose opportunities for self-definition and self-expression have been effectively suppressed for extended periods of time—who have been denied conventional outlets through which to use their intellect or to express their heightened sense of injustice—come increasingly to define themselves in opposition to the prison administration. They begin to gradually fashion an identity that is anchored primarily by the goal of thwart-

ing and resisting the control mechanisms that are increasingly directed at them. The material out of which their social reality is constructed increasingly consists of the only events to which they are exposed and the only experiences they are allowed to have—the minutiae of the supermax itself and all of the nuance with which it can be infused.

Just as the social pathologies of supermax are the creations of a socially pathological environment, taking prisoners out of these places often goes a long way in reducing or eliminating the negative effects. But there is good reason to believe that some prisoners—we do not yet know how many or, in advance, precisely who—cannot and will not overcome these social pathologies; their extreme adaptations to supermax confinement become too ingrained to relinquish. Those who are not blessed with special personal resiliency and significant social and professional support needed to recover from such atypical and traumatic experiences may never return to the free world and resume normal, healthy, productive social lives. These are extraordinary—I believe often needless and indefensible—risks to take with the human psyche and spirit. Such extreme, ultimately dysfunctional, but often psychologically necessary adaptations to supermax confinement underscore the importance of continuing to critically analyze, modify, and reform the extremely harsh conditions that produce them. Understanding how and why they occur also brings some real urgency to the development of effective programs by which prisoners can be assisted in unlearning problematic habits of thinking, feeling, and acting on which their psychological survival in supermax often depends.

But they also highlight another issue. In what is one of the core irrationalities in the logic on which supermax regimes are premised, these units make the ability to withstand the psychological assault of extreme isolation a prerequisite for allowing prisoners to return to the intensely social world of mainline prison or free society. In this way, prisoners who cannot “handle” the profound isolation of supermax confinement are almost always doomed to be retained in it. And those who have adapted all too well to the deprivation, restriction, and pervasive control are prime candidates for release to a social world to which they may be incapable of ever fully readjusting.

ADDITIONAL MENTAL HEALTH ISSUES IN SUPERMAX

In addition to the negative psychological effects of solitary and supermax-like confinement reviewed above, there are several other important mental health issues raised by the nature of these conditions and the policies by

which prisoners are placed in them. One such issue involves the number of mentally ill prisoners who are housed in supermax. Prisoners often describe their experience in supermax environments as a form of psychological torture; most of them are in varying degrees of psychic pain, and many of them struggle to cope with the daily stress of their confinement. Although in my experience, virtually everyone in these units suffers, prisoners with preexisting mental illnesses are at greater risk of having this suffering deepen into something more permanent and disabling. Those at greatest risk include, certainly, persons who are emotionally unstable, who suffer from clinical depression or other mood disorders, who are developmentally disabled, and those whose contact with reality is already tenuous. There is good reason to believe that many of these prisoners in particular will be unable to withstand the psychic assault of dehumanized isolation, the lack of caring human contact, the profound idleness and inactivity, and the otherwise extraordinarily stressful nature of supermax confinement without significant deterioration and decompensation.

How many such persons are there? Research conducted over the past several decades suggests that somewhere between 10% to 20% of mainline prisoners in general in the United States suffer from some form of major mental illness (e.g., Jamelka, Trupin, & Chiles, 1989; Veneziano & Veneziano, 1996). The percentages in supermax appear to be much higher. Although too few studies have been done to settle on precise estimates of mentally ill supermax prisoners, and the numbers undoubtedly vary some from prison system to prison system, the percentages may be as much as twice as high as in the general prisoner population.

For example, a Canadian study estimated that approximately 29% of prisoners in special handling and long-term segregation units suffered from "severe mental disorders" (Hodgins & Cote, 1991). A more recent study conducted by a group of Washington state researchers (Lovell, Cloyes, Allen, & Rhodes, 2000) found exactly the same thing: 29% of intensive management prisoners in the state's correctional system manifested at least one predefined indication of serious mental disorder (such as multiple admissions to an acute care mental care facility, or having been in one of the prison system's residential mental health units).

Why this overrepresentation? Unproblematic adjustment to prison requires conformity to rigidly enforced rules and highly regimented procedures. Many mentally ill prisoners lack the capacity to comply with these demands and they may end up in trouble as a result. If they are not treated for their problems, the pattern is likely to be repeated and eventually can lead to confinement in a supermax unit. As Toch and Adams (2002) have succinctly put it, "an unknown proportion of people who are problems (prove trouble-

some to settings in which they function) also have problems (demonstrate psychological and social deficits when they are subjected to closer scrutiny)” (p. 13). Prison systems that fail to realize this basic fact will end up blaming—and punishing—prisoners for manifesting psychological conditions for which they should have been treated. Especially for prison systems that lack sufficient resources to adequately address the needs of their mentally ill mainline prisoners, disciplinary isolation and supermax confinement seems to offer a neat solution to an otherwise difficult dilemma. In such systems, supermax becomes the default placement for disruptive, troublesome, or inconvenient mentally ill prisoners. Thus the presence of a disproportionately high number of mentally ill prisoners in supermax often reflects a failure of system-wide proportions.

A number of supermax prisons fail to adequately screen out prisoners with preexisting mental illness, and fail to remove those whose mental health problems worsen under the stress of the extreme isolation, deprivation, and forceful control they confront inside. In addition, many of the units fail to appreciate the potential for these kinds of conditions of confinement to produce psychopathology in previously healthy prisoners. These problems are exacerbated by the fact that even if mental health staff members manage to identify those prisoners with serious psychological and psychiatric needs, many supermaxes are uniquely ill-suited to address them. Not only are they likely to be staffed with too few treatment personnel and plagued by high turnover, but the extraordinary and unyielding security procedures that characterize these kinds of prisons often preclude meaningful and appropriate therapeutic contact.

Thus, supermax prisoners who are in acute distress typically have the option of receiving what is euphemistically called “cell front therapy” in which they can discuss intimate, personal problems with mental health staff who cannot easily see or hear them through the cell doors (unless they speak so loudly that other prisoners in the housing unit also can listen in). Or they can choose to undergo strip searches, be placed in multiple restraints (which are typically left on throughout the therapy session), and taken either to a counselor’s office (where correctional officer escorts are often stationed close enough to overhear what is being said) or special rooms fitted with security cages in which the prisoner is placed to be counseled by a therapist who speaks to them through wire screening of the cage. Or, in some places they can submit to “tele-psychiatry” sessions in which disembodied images attempt to assess and address their problems from distant locations. Not surprisingly, under these circumstances many prisoners fail to ask for help or reject it when it is offered.

A separate but related problem pertains to the group of prisoners who, although they do not suffer from preexisting mental illness, nonetheless are

psychologically damaged by the extreme situational stress to which they are subjected in supermax. There is much reason to believe that supermax confinement may produce psychopathology in certain persons who otherwise would not have suffered it. For example, a study of Danish prisoners found that for prisoners who remained in solitary confinement for longer than 4 weeks “the probability of being admitted to the prison hospital for a psychiatric reason was about 20 times as high as for a person [in a mainline prison]” (Sestoft et al., 1998, p. 103), leading the researchers to conclude that “individuals detained [in solitary confinement] are forced into an environment that increases their risk of hospitalization...for psychiatric reasons” (p. 105).

Finally, as I earlier alluded, many of the psychological and psychiatric reactions created or exacerbated by supermax confinement may persist long after a prisoner has been released into the mainline population or freed from incarceration altogether. In addition, even among prisoners who suffer no readily identifiable set of psychological symptoms, the social pathologies of supermax confinement may significantly interfere with long-term adjustment. To date, most supermax prisons appear oblivious to these persistent problems and many offer no meaningful counseling or transitional programs at all to prisoners who are attempting to make the daunting adjustment from near total isolation to an intensely social existence.

These interrelated problems—that prisoners suffering from preexisting mental illnesses are overrepresented in supermax, that the pains of supermax confinement are too severe for many prisoners to withstand, and that many of the psycho- and social pathologies of supermax confinement have disabling long-term consequences—have several important correctional policy implications. In particular, procedures must be implemented for screening prisoners in advance of their transfer to supermax (so that mentally ill and otherwise vulnerable persons are never placed there in the first place). In addition, because the mental health needs of any supermax prisoner can become acute and substantial at any time, prison systems need to be fully prepared to adequately address them (setting aside the obvious question of whether anyone can and should, in a humane system, be housed in such environments in the first place).

This also means that supermax prisons must implement careful psychiatric monitoring of all prisoners during their confinement and have readily accessible procedures in place for the removal of any prisoner at the first sign of deterioration. Given the fact that supermax prisoners behave so little—they are not permitted to actually do much of anything—the opportunities for disturbed behavior to be observed by staff are extremely limited. If monitoring is done passively, as it often is, only the most flagrant cases are likely to come to anyone’s attention. Mental health staff who walk through supermax

housing units, pausing briefly at each cell to ask prisoners how they are doing or to pose some other equally superficial, pro forma inquiry are not engaging in careful psychiatric screening. In light of the psychological risks posed by this environment and the widely shared reluctance of these prisoners to admit vulnerability, the regular and in-depth evaluation of supermax prisoners should be regarded as the only acceptable and truly effective form of monitoring.

Finally, supermax units should be required to provide extensive mental health resources that are specifically targeted to ease the psychological pains of this kind of confinement and the extremely difficult transitions that typically follow it. Supermax prisoners must enter so-called de-escalation or step-down programs well in advance of their release, and the programs themselves must grapple seriously and forthrightly with the negative psychological changes that supermax confinement often brings about. This will require prison systems that are in denial about the issues reviewed in the preceding pages to overcome it, and to acknowledge and confront the psychological consequences of housing prisoners under conditions that pose such significant mental health risks. Attempts to provide these kinds of transitional services through programs that are delivered without genuine interpersonal interaction and social contact—some systems actually use videotapes that supermax prisoners watch alone in their cells, supposedly to reacquaint them with the social world they are about to reenter—will prove to be painfully inadequate. Moreover, like all meaningful mental health and counseling services, these transitional programs must be made available to prisoners under genuinely therapeutic conditions that foster some degree of privacy, trust, and supportive social interaction.

THE LEGAL REGULATION OF SUPERMAX

Because supermax prisons are of relatively recent origin, their constitutionality—the question of whether the conditions of confinement in this new prison form represent cruel and unusual punishment—has been tested in only a few important cases. In this section, I review the three most important legal challenges to supermax confinement and examine the implications of the way in which the courts have responded in each. Judges in all three cases recognized the need for some form of segregated housing in correctional settings, emphatically acknowledged—with varying degrees of clarity and scope—the potential psychological harms of supermax-type confinement, and explicitly prohibited certain categories of prisoners from being housed under such conditions.

The first such case, *Madrid v. Gomez* (1995), addressed conditions of confinement in California's Pelican Bay Security Housing Unit, the site at which my earlier reported research was conducted. The judge was candid and critical in his assessment of the conditions of confinement in the California supermax. He pointed to the "stark sterility and unremitting monotony" of the interior of the prison itself, was concerned about the fact that prisoners "can go weeks, months or potentially years with little or no opportunity for normal social contact with other people," and commented that the sight of prisoners in the barren exercise pens to which they were restricted creating an image "hauntingly similar to that of caged felines pacing in a zoo" (p. 1229).

He found further that "many, if not most, inmates in the SHU experience some degree of psychological trauma in reaction to their extreme social isolation and the severely restricted environmental stimulation in the SHU" (p. 1235). Indeed, the court's opinion acknowledged that "social science and clinical literature have consistently reported that when human beings are subjected to social isolation and reduced environmental stimulation, they may deteriorate mentally and in some cases develop psychiatric disturbances" (p. 1230). He concluded that Pelican Bay inflicted treatment on prisoners that, in his words, "may well hover on the edge of what is humanly tolerable for those with normal resilience, particularly when endured for extended periods of time" (p. 1280).

However, although the judge in *Madrid* also found that overall conditions in the supermax units were "harsher than necessary to accommodate the needs of the institution" (p. 1263), he concluded that he lacked any constitutional basis to close the prison or even to require significant modifications in many of its general conditions. Instead, he barred certain categories of prisoners from being sent there because of the tendency of the facility to literally make them mentally ill or significantly exacerbate preexisting mental illness. In particular, he limited the class of prisoners to be protected from these harms to the mentally ill and those prisoners who were at an unreasonably high risk of suffering a serious mental illness as a result of the conditions (including prisoners diagnosed as chronically depressed, brain damaged, and developmentally disabled).⁸ Finally, the judge emphasized that the record before him pertained to prisoners who had been in supermax for no more than a few years and that longer term exposure might require a different result.⁹

In the second significant case to examine conditions of confinement in supermax-like settings, *Ruiz v. Johnson* (1999), a federal district court reached even more sweeping legal conclusions than the judge had in *Madrid*. For nearly 30 years, the *Ruiz* court had overseen the sweeping reform of the Texas prison system. Starting with a landmark opinion in 1980 in which the entire Texas prison system was declared unconstitutional (*Ruiz v. Estelle*,

1980), an extensive number of court-ordered changes had been implemented. Hoping to end this judicial oversight, the state petitioned to terminate the court's jurisdiction, arguing that a sufficient number of reforms had been made in the Texas prison system and that no unconstitutional conditions of confinement remained. The federal court agreed on some counts but disagreed emphatically on others.

Conditions of confinement in Texas's "administrative segregation" or "high security" units were a major part of this round of the *Ruiz* litigation. Despite acknowledging significant improvements in many other areas of the state's prison system, the court ruled that its disciplinary lockup units still operated below constitutionally minimum standards. In particular, the judge ruled that the "extreme deprivations and repressive conditions of confinement" of the administrative segregation units constituted cruel and unusual punishment "both as to the plaintiff class generally and to the subclass of mentally ill inmates housed in such confinement" (p. 861). Indeed, the judge concluded that "more than mere deprivation," the prisoners in these units "suffer actual psychological harm from the almost total deprivation of human contact, mental [stimulation], personal property and human dignity" (p. 913).

The judge also understood that the psychological harm inflicted by long-term supermax confinement could result in mental illness, even among those prisoners not previously afflicted. Thus, the court concluded that "Texas's administrative segregation units are virtual incubators of psychoses—seeding illness in otherwise healthy inmates and exacerbating illness in those already suffering from mental infirmities" (p. 907). The judge was clear and decisive in his ruling, writing that "it is found that administrative segregation is being utilized unconstitutionally to house mentally ill inmates—inmates whose illness can only be exacerbated by the depravity of their confinement" (p. 915).

He further speculated about why prison officials, who were clearly aware of these conditions and cognizant of the "inmates' ensuing pain and suffering" might maintain such a system. Whatever the cause—including the possibility that the officials labored under what he termed "a misconception of the reality of psychological pain"—the judge condemned the fact that the prison system had "knowingly turned its back on this most needy segment of its population" (p. 914).¹⁰

The final and most recent case, *Jones 'El v. Berge* (2001), presented a somewhat narrower issue but resulted in a similarly strong ruling. In this case, a federal district court in Wisconsin granted prisoners' motion for injunctive relief on the grounds that seriously mentally ill prisoners were at risk of irreparable emotional damage if the state continued to confine them in its supermax facility. The court concluded that the

extremely isolating conditions in supermaximum confinement cause SHU Syndrome in relatively healthy prisoners who have histories of serious mental illness, as well as prisoners who have never suffered a breakdown in the past but are prone to break down when the stress and trauma become exceptionally severe. (pp. 1101-1102)

The court found further that

credible evidence indicates that Supermax is not appropriate for seriously mentally ill inmates because of the isolation resulting from the physical layout, the inadequate level of staffing and the customs and policies. Supermax was designed to house especially disruptive and recalcitrant prisoners but not mentally ill ones. (p. 1118)

The judge ordered several prisoners to be removed from the supermax facility. In addition, she required mental health professionals to evaluate several categories of prisoners among those who remained, and if any of them were determined to be seriously mentally ill, she ordered that they be transferred out of supermax.

In each of these three cases in which federal district courts were presented with evidence of the psychological effects of supermax confinement, they acknowledged the significant psychological risks it posed, expressed strongly worded concerns about the constitutionality of exposing prisoners to these conditions for long periods of time, and expressly prohibited the use of supermax for certain categories of prisoners (in particular, those with pre-existing histories of mental illness, and those likely to become mentally ill in the course of their solitary confinement).

CONCLUSION

Supermax prisons inflict varying amounts of psychological pain and emotional trauma on prisoners confined in them. The range of psychopathological reactions to this form of confinement is broad, many of the reactions are serious, and the existing evidence on the prevalence of trauma and symptomatology indicates that they are widespread. The mental health risks posed by this new form of imprisonment are clear and direct, exacerbated by the tendency of correctional systems to place a disproportionate number of previously mentally ill prisoners in supermax confinement, to ignore emerging signs of mental illness among the supermax prison population, and to fail to provide fully adequate therapeutic assistance to those prisoners who are in psychic pain and emotional distress.

It is important to reflect on whether the psychologically destructive conditions to which prisoners in supermax prisons are exposed would be countenanced for any other group in our society. Indeed, revelations that mental patients or elderly nursing home residents have been subjected to punitive isolation are understandably followed by widespread public outcry. Similarly, when typically more psychologically resilient populations have been taken as prisoners of war or as hostages subsequently held in isolation, recognition of the adverse psychological consequences is immediate and generates broad concern. Support for providing psychiatric counseling to the victims of these kinds of traumatic experiences is unquestioned.

The fact that no such recognition and concern is typically extended to prisoners in supermax confinement whose experiences in captivity may be comparable or worse, and of longer duration, raises disturbing questions: Do we allow what we believe to be their blameworthiness for this kind of mistreatment—that they earned it, they deserve it, they asked for it—to blur our understanding of the consequences of the mistreatment itself? That is, has devaluing the prisoners' claim to be free from such harm led to the erroneous perception that the harm is not real? If so, the empirical evidence suggests that we have made a grievous mistake.

I believe that the overwhelming evidence of the negative psychological effects of many forms of long-term supermax confinement provides a strong argument for placing enhanced correctional and legal limits on the use of this new prison form and carefully scrutinizing all aspects of its operation and effect (e.g., Haney & Lynch, 1997, pp. 558-566). As I noted earlier, there are better and worse supermax prisons, and we should take steps to ensure that all such facilities implement the best and most humane of the available practices. In general, far more careful screening, monitoring, and removal policies should be implemented to ensure that psychologically vulnerable—not just mentally ill—prisoners do not end up in supermax in the first place, and that those who deteriorate once there are immediately identified and transferred to less psychologically stressful environments. In addition, prison disciplinary committees should ensure that no prisoner is sent to supermax for infractions that were the result of preexisting psychiatric disorders or mental illness.¹¹

Moreover, harsh supermax conditions of confinement themselves must be modified to lessen their harmful effects. That is, it is important to recognize that placing people in conditions of confinement that we know in advance are likely to psychologically harm and endanger them cannot be morally justified merely through assurances that, if and when they do deteriorate, the prison system will make a good faith effort to identify the damage and work reasonably diligently to repair it. Thus, meaningful activities and program-

ming—including access to therapy, work, education, and recreation—should be afforded all supermax prisoners to prevent deterioration, and out-of-cell time should be maximized within the limits of correctional resources. To prevent the total atrophy of social skills and the deterioration of social identities, supermax prisoners should be afforded some form of meaningful collective activity and opportunities for normal social interaction (that includes contact visiting).

Finally, strict time limits should be placed on the length of time that prisoners are housed in supermax. No prisoner should be subjected continuously to even these modified conditions of supermax-like confinement for longer than a period of 2 years, no prisoner should ever be subjected to indeterminate supermax terms for any reason, and no prisoner should be sent to supermax solely on the basis of alleged gang membership in the complete absence of other overt behavioral infractions. Indeed, the units themselves should be organized around the goal of rapid return and reintegration and judged on the basis of their ability to release rather than retain prisoners. Once prisoners are about to be released from supermax confinement, they should be afforded transitional or step-down programming to accustom them to the kind of environment to which they will be sent (mainline prison housing or the free world). Moreover, given the likely long-term effects of such confinement, these transitional programs and services should be continued after the prisoner has been transferred from supermax.

Correctional administrators, politicians, legal decision makers, and members of the public eventually may decide that the harm that supermax prisons inflict is worth the benefit that they arguably beget and that the pains of such confinement are the regrettable but unavoidable price of an otherwise justified policy. However, there are very serious psychological, correctional, legal, and even moral issues at the core of this calculation that are worthy of serious, continued debate. This debate has hardly begun and, in most instances, it has hardly been informed by the empirical record that I have cited in the preceding pages.

Many scholars who have studied supermax prisons—myself included—doubt the validity of the claims that are made on their behalf,¹² and believe that in any event many of the publicly asserted goals of this new form of imprisonment can be achieved through less psychologically onerous and invasive alternatives. Yet, whatever one concludes about the value of supermax prisons in achieving these goals, it represents only one term in a more complex equation. The important determination of what, if any, legitimate role this kind of imprisonment should have in an effective and humane prison system can only be made with its psychological effects clearly in mind. The best available evidence indicates very clearly that many

supermax-like conditions of confinement inflict extraordinary levels of psychological pain and create substantial mental health risks. We should not continue to ignore, overlook, or minimize these data in this continuing and important debate.

NOTES

1. I have chosen to use the more encompassing term *supermax prison* even though it is rarely used as the official designation for such places. Different prison systems use different terminology to refer to these kinds of units. For example, the program at Marion Penitentiary generally regarded as having given rise to the supermax design was referred to as the “control unit.” Arizona’s supermax units are called “special management units” or “SMUs”; in California, they are known as “security housing units,” or “SHUs”; in Texas, they are “high security units”; Washington State employs the term “intensive management unit” or “IMU,” whereas New Mexico prefers “special controls unit” or “SCU.” Although penologist Chase Riveland (1999) was correct to conclude that “there is no universal definition of what supermax facilities are and who should be in them” (p. 4), most of these units, whatever they are called, have enough distinctive features in common to be analyzed together.

2. Few “isolation” units, including supermax prisons, have been able to successfully prevent literally all forms of interpersonal communication. Of necessity, prisoners in solitary confinement must have some form of regular and routine contact with staff. In addition, the physical layouts of most such units—adjoining cells connected by plumbing, heating vents, and ventilation ducts—typically allow for some minimal form communication between prisoners (however strained and denatured the “interaction” may be and however inventive prisoners must be to bring it about).

3. Long-term solitary confinement was once a standard feature of imprisonment. But by the last decade of the 19th century, it essentially had been abandoned (see Haney & Lynch, 1997, pp. 481-496). In 1890, U.S. Supreme Court Justice Miller (*Re Medley*, 1890), summarized the preceding hundred years of experience with this kind of punishment by noting, “There were serious objections to it. . . and solitary confinement was found to be too severe.” To illustrate, he also provided this account of its psychological effects:

A considerable number of the prisoners fell, after even a short confinement, into a semi-fatuous condition, from which it was next to impossible to arouse them, and others became violently insane; others still, committed suicide; although those who stood the ordeal better were not generally reformed, and in most cases did not recover sufficient mental activity to be of any subsequent service to the community. (p. 168)

4. In some jurisdictions, overcrowding in these units has forced prison officials to double-cell supermax prisoners. In a sense, this kind of confinement leaves prisoners simultaneously and paradoxically isolated and overcrowded.

5. Most states conduct periodic reviews of such indeterminate sentences. But the reviews are typically pro forma and continued supermax placement is virtually always authorized. Since the initial decision about a prisoner’s status as a gang member is based entirely on the judgement of staff members, and since these judgements rarely if ever change, continued and indefinite supermax placement is essentially assured. See Tachiki (1995) for a more detailed discussion of this issue.

6. What, exactly, qualifies a prisoner to be considered one of the so-called “worst of the worst” has never really been clarified in correctional policy or constitutional decision making. Nonetheless, correctional administrators (e.g., Hershberger, 1998) and even some federal judges talk about the category as though it was unproblematic to define and apply. For example, “Common sense, moreover, tells us that the prisoners in the disciplinary unit of a maximum security prison are apt to be the worst of the worst and that guards must therefore use more repressive methods in dealing with them” (*Cooper v. Casey*, 1996, p. 918). See, also, *Jones ‘El v. Berge* (2001): “Supermax Correctional Institution is a 500 bed supermaximum security facility in Boscobel, Wisconsin, designed to incarcerate the worst of the worst offenders” (p. 1099). However, as another federal judge correctly observed, “this concept has proven difficult to operationalize” (*Austin v. Wilkinson*, 2002, p. 723). Critics have questioned the use of this terminology and worry that its vagueness leads repeatedly to overclassification and the blanket justification for harsh treatment. When it is applied to prisoners solely on the basis of alleged gang affiliation or in response to disciplinary infractions that, in at least some instances, appear to stem more from mental illness than willful propensities on the part of the prisoner, it seems particularly questionable and subject to abuse. See, for example, DeMaio (2001) and Tachiki (1995).

7. Random sampling of prisoners permits the sample statistics to be generalized to the characteristics of the entire SHU population, within a margin of error associated with the particular estimate. This margin of error is a function of both the size of the sample (in this case, 102) and the specific sample percentage being generalized. For example, at the 95% confidence level (the level ordinarily used in academic and scientific writing), the margin of error for this sample is somewhere between $\pm 6\%$ to 10% , depending on the specific sample percentage. The more even the percentage split (i.e., 50%), the closer to the higher limit (in this case $\pm 10\%$) the margin of error will be.

8. In a key passage in the opinion, the judge (*Madrid v. Gomez*, 1995) limited his ruling in this way:

While a risk of a more serious [mental] injury is not non-existent, we are not persuaded, on the present record and given all the circumstances, that the risk of developing an injury to mental health of *sufficiently serious magnitude* due to current conditions in the SHU is high enough for the SHU population as a whole, to find that current conditions in the SHU are *per se* violative of the Eighth Amendment with respect to all potential inmates. (p. 1265)

9. He wrote, “We emphasize, of course, that this determination is based on the current record and data before us. We can not begin to speculate on the impact that Pelican Bay SHU conditions may have on inmates confined in the SHU for periods of 10 or 20 years or more; the inmates studied in connection with this action had generally been confined to the SHU for three years or less” (*Madrid v. Gomez*, 1995, p. 1267).

10. A short time later in the opinion, the judge was equally pointed in his analysis:

As the pain and suffering caused by a cat-o’-nine-tails lashing an inmate’s back are cruel and unusual punishment by today’s standards of humanity and decency, the pain and suffering caused by extreme levels of psychological deprivation are equally, if not more, cruel and unusual. The wounds and resulting scars, while less tangible, are no less painful and permanent when they are inflicted on the human psyche. (p. 914)

11. It is important not to be naïve about vague recommendations like “screening, monitoring, and removal.” The utility of these reforms turns entirely on the way in which they are actually implemented. For example, if mental health personnel must always defer to the judgements of custodial staff, are under pressure to admit or retain prisoners in supermax whom they believe should not be there, are inadequately trained to recognize vulnerabilities to isolation-related

stressors, or predisposed to attribute psychiatric complaints to preexisting character disorders (and thereby dismiss them), then the reforms will help to ameliorate the harms of supermax very little or not at all.

12. For example, "Not one of the state supermax prisons, however, is necessary, and all are a grave error in the sad tale of man's brutality to man" (Kurki & Morris, 2001, p. 421); "Where prison regimes are so depriving as those offered in most supermax facilities, the onus is upon those imposing the regimes to demonstrate that this is justified. . . . To the best of my knowledge, no convincing demonstration has yet been provided" (King, 2000, p. 182); "Supermaxes have to justify or modify the draconian strictures that typically prevail at entry into the setting. The argument that such strictures are required as an incentive for promotion to a less sensorily-deprived environment is specious because less onerous gradations of conditions would serve the same ends" (Toch, in press).

REFERENCES

- Andersen, H., Sestoft, D., Lillebaek, T., Gabrielsen, G., Hemmingsen, R., & Kramp, P. (2000). A longitudinal study of prisoners on remand: Psychiatric prevalence, incidence and psychopathology in solitary vs. non-solitary confinement. *Acta Psychiatrica Scandinavica*, *102*, 19-25.
- Austin v. Wilkinson, 189 F. Sup. 2d 719 (2002).
- Bauer, M., Priebe, S., Haring, B., & Adamczak, K. (1993). Long-term mental sequelae of political imprisonment in East Germany. *Journal of Nervous & Mental Disease*, *181*, 257-262.
- Benjamin, T., & Lux, K. (1975). Constitutional and psychological implications of the use of solitary confinement: Experience at the Maine prison. *Clearinghouse Review*, *9*, 83-90.
- Bidna, H. (1975). Effects of increased security on prison violence. *Journal of Criminal Justice*, *3*, 33-46.
- Brodsky, S., & Scogin, F. (1988). Inmates in protective custody: First data on emotional effects. *Forensic Reports*, *1*, 267-280.
- Chappell, N., & Badger, M. (1989). Social isolation and well-being. *Journal of Gerontology*, *44*, 169-176.
- Cooke, M., & Goldstein, J. (1989). Social isolation and violent behavior. *Forensic Reports*, *2*, 287-294.
- Cooper v. Casey, 97 F.3d 914 (1996).
- Cormier, B., & Williams, P. (1966). Excessive deprivation of liberty. *Canadian Psychiatric Association Journal*, *11*, 470-484.
- Deaton, J., Burge, S., Richlin, M., & Latrownik, A. (1977). Coping activities in solitary confinement of U.S. Navy POWs in Vietnam. *Journal of Applied Social Psychology*, *7*, 239-257.
- DeMaio, J. (2001). If you build it, they will come: The threat of overclassification in Wisconsin's supermax prison. *Wisconsin Law Review*, *2001*, 207-248.
- Dupuy, H., Engel, A., Devine, B., Scanlon, J., & Querec, L. (1970). *Selected symptoms of psychological distress*. Washington, DC: Government Printing Office.
- Edwards, K. (1988). Some characteristics of inmates transferred from prison to a state mental hospital. *Behavioral Sciences and the Law*, *6*, 131-137.
- Fisher, W. (1994). Restraint and seclusion: A review of the literature. *American Journal of Psychiatry*, *151*, 1584-1591.
- Foster, D. (1987). *Detention & torture in South Africa: Psychological, legal & historical studies*. Cape Town, South Africa: David Philip.

- Grassian, S. (1983). Psychopathological effects of solitary confinement. *American Journal of Psychiatry*, *140*, 1450-1454.
- Haney, C. (1993). Infamous punishment: The psychological effects of isolation. *National Prison Project Journal*, *8*, 3-21.
- Haney, C. (1997). Psychology and the limits to prison pain: Confronting the coming crisis in Eighth Amendment law. *Psychology, Public Policy, and Law*, *3*, 499-588.
- Haney, C. (in press). The psychological impact of incarceration: Implications for post-prison adjustment. In J. Travis (Ed.), *From prison to home*. Washington, DC: Urban Institute Press.
- Haney, C., & Lynch, M. (1997). Regulating prisons of the future: The psychological consequences of solitary and supermax confinement. *New York University Review of Law and Social Change*, *23*, 477-570.
- Haney, C., & Zimbardo, P. (1998). The past and future of U.S. prison policy: Twenty-five years after the Stanford Prison Experiment. *American Psychologist*, *53*, 709-727.
- Harrison, A., Clearwater, Y., & McKay, C. (1989). The human experience in Antarctica: Applications to life in space. *Behavioral Science*, *34*, 253-271.
- Hayes, L. (1989). National study of jail suicides: Seven years later. Special Issue: Jail suicide: A comprehensive approach to a continuing national problem. *Psychiatric Quarterly*, *60*, 7-15.
- Herman, J. (1992). A new diagnosis. In J. Herman (Ed.), *Trauma and recovery*. New York: Basic Books.
- Herman, J. (1995). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. In G. Everly & J. Lating, (Eds.), *Psychotraumatology: Key papers and core concepts in post-traumatic stress* (pp. 87-100). New York: Plenum.
- Hershberger, G. (1998). To the max: Supermax facilities provide prison administrators with more security options. *Corrections Today*, *60*(1), 54-57.
- Hilliard, T. (1976). The Black psychologist in action: A psychological evaluation of the Adjustment Center environment at San Quentin Prison. *Journal of Black Psychology*, *2*, 75-82.
- Hinkle, L., & Wolff, H. (1956). Communist interrogation and indoctrination of "enemies of the states." *Archives of Neurology and Psychiatry*, *76*, 115-174.
- Hocking, F. (1970). Extreme environmental stress and its significance for psychopathology. *American Journal of Psychotherapy*, *24*, 4-26.
- Hodgins, S., & Cote, G. (1991). The mental health of penitentiary inmates in isolation. *Canadian Journal of Criminology*, *33*, 177-182.
- Horowitz, M. (1990). Post-traumatic stress disorders: Psychosocial aspects of the diagnosis. *International Journal of Mental Health*, *19*, 21-36.
- Hougen, H. (1988). Physical and psychological sequelae to torture: A controlled clinical study of exiled asylum applicants. *Forensic Sciences International*, *39*, 5-11.
- Human Rights Watch. (1991, November). *Prison conditions in the United States: A Human Rights Watch Report*. New York: Author.
- Human Rights Watch. (2000, February). Out of sight: Super-maximum security confinement in the United States. *Human Rights Watch*, *12*(1), 1-9.
- Jackson, M. (1983). *Prisoners of isolation: Solitary confinement in Canada*. Toronto, Canada: University of Toronto Press.
- Jamelka, R., Trupin, E., & Chiles, J. (1989). The mentally ill in prison. *Hospital and Community Psychiatry*, *40*, 481-491.
- Johnson, E. (1973). Felon self-mutilation: Correlate of stress in prison. In B. Dant (Ed.) *Jail House Blues*. Michigan: Epic.
- Jones, A. (1986). Self-mutilation in prison: A comparison of mutilators and nonmutilators. *Criminal Justice and Behavior*, *13*, 286-296.
- Jones, D. (1976). *The health risks of imprisonment*. Lexington, MA: D. C. Heath.

- Jones 'El v. Berge, 164 F. Supp. 1096 (2001).
- King, R. (2000). The rise and rise of supermax: An American solution in search of problem? *Punishment and Society*, 1, 163-186.
- Koch, I. (1986). Mental and social sequelae of isolation: The evidence of deprivation experiments and of pretrial detention in Denmark. In B. Rolston & M. Tomlinson (Eds.), *The expansion of European prison systems* (Working Papers in European Criminology No. 7, p. 119-129). Belfast, U.K.: Print Workshop.
- Korn, R. (1988a). The effects of confinement in the High Security Unit at Lexington. *Social Justice*, 15, 8-19.
- Korn, R. (1988b). Follow-up report on the effects of confinement in the High Security Unit at Lexington. *Social Justice*, 15, 20-29.
- Kratcoski, P. (1988). The implications of research explaining prison violence and disruption. *Federal Probation*, 52, 27-32.
- Kurki, L., & Morris, N. (2001). The purposes, practices, and problems of supermax prisons. *Crime and Justice*, 28, 385-424.
- Leiderman, H. (1962). Man alone: Sensory deprivation and behavioral change. *Corrective Psychiatry and Journal of Social Therapy*, 8, 64-74.
- Lovell, D., Cloyes, K., Allen, D., & Rhodes, L. (2000). Who lives in super-maximum custody? A Washington State study. *Federal Probation*, 64(2), 33-38.
- Madrid v. Gomez, 889 F. Supp. 1146 (1995).
- Mason, T. (1993). Seclusion theory reviewed—A benevolent or malevolent intervention? *Medical Science Law*, 33, 95-102.
- Miller, H., & Young, G. (1997). Prison segregation: Administrative detention remedy or mental health problem? *Criminal Behaviour and Mental Health*, 7, 85-94.
- O'Brien, T., & Jones, D. (1999). A balanced approach for corrections policy needed. *American Psychologist*, 54, 784-785.
- Porporino, F. (1986). Managing violent individuals in correctional settings. *Journal of Interpersonal Violence*, 1, 213-237.
- Rathbone-McCuan, E., & Hashimi, J. (1982). *Isolated elders: Health and social intervention*. Rockville, MD: Aspen Systems.
- Re Medley, 134 U.S. 160 (1890).
- Riekert, J. (1985). The DDD syndrome: Solitary confinement and a South African Security Law trial. In A. Bell & R. Mackie (Eds.) *Detention and security legislation in South Africa* (pp. 121-147). Durban, South Africa: University of Natal.
- Riveland, C. (1999). *Supermax prisons: Overview and general considerations*. Washington, DC: U.S. Department of Justice.
- Robins, L., & Regier, D. (Eds.) (1991). *Psychiatric disorders in America: The epidemiologic catchment area study*. New York: Free Press.
- Ruiz v. Estelle, 503 F. Supp. 1265 (1980).
- Ruiz v. Johnson, 37 F. Supp. 855 (1999).
- Rundle, F. (1973). The roots of violence at Soledad. In E. O. Wright (Ed.), *The politics of punishment: A critical analysis of prisons in America* (pp. 163-172). New York: Harper.
- Scott, G. (1969). The prisoner of society: Psychiatric syndromes in captive society. *Correctional Psychologist*, 3(7), 3-5.
- Scott, G., & Gendreau, P. (1969). Psychiatric implications of sensory deprivation in a maximum security prison. *Canadian Psychiatric Association Journal*, 12, 337-341.
- Sestoft, D., Andersen, H., Lilleback, T., & Gabrielsen, G. (1998). Impact of solitary confinement on hospitalization among Danish prisoners in custody. *International Journal of Law and Psychiatry*, 21, 99-108.

- Shallice, T. (1974). The Ulster interrogation techniques and their relation to sensory deprivation research. *Cognition, 1*, 385-405.
- Siegel, R. (1984). Hostage hallucinations: Visual imagery induced by isolation and life-threatening stress. *Journal of Nervous and Mental Disease, 172*, 264-272.
- Slater, R. (1986). Psychiatric intervention in an atmosphere of terror. *American Journal of Forensic Psychiatry, 7*(1), 5-12.
- Somnier, F., & Genefke, I. (1986). Psychotherapy for victims of torture. *British Journal of Psychiatry, 149*, 323-329.
- Steinke, P. (1991). Using situational factors to predict types of prison violence. *Journal of Offender Rehabilitation, 17*, 119-132.
- Suedfeld, P., Ramirez, C., Deaton, J., & Baker-Brown, G. (1982). Reactions and attributions of prisoners in solitary confinement. *Criminal Justice and Behavior, 9*, 303-340.
- Suedfeld, P., & Roy, C. (1975). Using social isolation to change the behavior of disruptive inmates. *International Journal of Offender Therapy and Comparative Criminology, 19*, 90-99.
- Tachiki, S. (1995). Indeterminate sentences in supermax prisons based upon alleged gang affiliations: A reexamination of procedural protection and a proposal for greater procedural requirements. *California Law Review, 83*, 1117-1149.
- Toch, H. (1975). *Men in crisis: Human breakdowns in prisons*. Chicago: Aldine.
- Toch, H. (in press). The future of supermax confinement. *The Prison Journal*.
- Toch, H., & Adams, K. (2002). *Acting out: Maladaptive behavior in confinement*. Washington, DC: American Psychological Association.
- Trop v. Dulles, 356 U.S. 86 (1958).
- Veneziano, L., & Veneziano, C. (1996). Disabled inmates. In M. McShane & F. Williams (Eds.), *Encyclopedia of American prisons* (pp. 157-161). New York: Garland.
- Volkart, R., Dittrich, A., Rothenfluh, T., & Werner, P. (1983). Eine kontrollierte untersuchung uber psychopathologische effekte der einzelhaft [A controlled investigation on psychopathological effects of solitary confinement]. *Psychologie—Schweizerische Zeitschrift fur Psychologie und ihre Anwendungen, 42*, 25-46.
- Volkart, R., Rothenfluh, T., Kobelt, W., Dittrich, A., & Ernst, K. (1983). Einzelhaft als Risikofactor fur psychiatrische Hospitalisierung [Solitary confinement as a risk factor for psychiatric hospitalization]. *Psychiatria Clinica, 16*, 365-377.
- Vrca, A., Bozikov, V., Brzovic, Z., Fuchs, R., & Malinar, M. (1996). Visual evoked potentials in relation to factors of imprisonment in detention camps. *International Journal of Legal Medicine, 109*, 114-117.
- Waligora, B. (1974). Funkcjonowanie Czlowieka W Warunkach Izolacji Wieziennej [How men function in conditions of penitentiary isolation]. *Seria Psychologia I Pedagogika NR 34*, Poland.
- Walters, R., Callagan, J., & Newman, A. (1963). Effect of solitary confinement on prisoners. *American Journal of Psychiatry, 119*, 771-773.
- West, L. (1985). Effects of isolation on the evidence of detainees. In A. Bell & R. Mackie (Eds.) *Detention and security legislation in South Africa* (pp. 69-80). Durban, South Africa: University of Natal.