

# The Psychological Effects of Solitary Confinement on Prisoners in Supermax Units

## Reviewing What We Know and Recommending What Should Change

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This article examines the psychological consequences of short- and long-term solitary confinement for prisoners in the United States subjected to administrative or disciplinary segregation. Particular attention is paid to the use of secure housing units, alternatively known as control units or supermax units. These correctional entities allow for the isolation of convicts under conditions that offer little sensory stimulation and minimal opportunities for interaction with other people. The circumstances typically found in these units and the heightened potential for the abuse of prisoners are described. The connections between internment and mental illness—as well as isolation and race, gender, and class—are explored. A set of recommendations for the reform of secure housing is presented.

**Keywords:** *supermax prisons; solitary confinement; psychological effects; abuse of prisoners; correctional policy reform*

Solitary confinement, or the segregation of convicts, has been used in prisons since their inception (Foucault, 1995; Rhodes, 2004). Prisoners are placed in isolated housing for reasons that are deemed punitive or administrative, but the objective in all cases is to increase control over them (Cockburn, 2001; Toch, 2003).<sup>1</sup> As the U.S. public becomes increasingly fearful of crime, legislators advocate for severe punishment of criminal offenders (Reiman, 2005). As harsh crime control policies have become more popular, the use of secure housing units (SHUs)—also called supermaximum custody units—and the short- and long-term segregation of convicts have become widespread (Haney, 2006; Rhodes, 2004). Consequently, the

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ever-increasing limitations that are being placed on the personal freedoms of prisoners raise serious civil rights issues (e.g., Kupers, 1999; Ross & Richards, 2002; Toch, 1977).

However, of particular concern for this article are the psychological effects of disciplinary and administrative segregation in SHUs. Although some attention to this concern has been addressed in the extant literature (e.g., Haney, 2003; Kurki & Morris, 2001; H. A. Miller, 1994), limited research “has directly examined the effect of supermax confinement on inmates’ psychological and physical health” (Pizarro & Stenius, 2004, p. 255). The origin of these disturbing correctional practices is rooted in the history of the penitentiary in general and in the case law pertaining to solitary confinement in particular. Thus, drawing attention to this history is useful in that it identifies the political engines that have fueled the growth of SHU facilities in the United States and the increasing deployment of segregated housing as a customary tool for punishing and managing the nation’s burgeoning prison population (Mears & Watson, 2006). Moreover, reviewing the relevant case law helps situate the plight and suffering of those subjected to the practice of solitary confinement in an important and timely evaluative context (King, 1999; Luise, 1989; N. Miller, 1995; Mears & Reisig, 2006).

Accordingly, following a summary presentation of these historical and legal matters, the pertinent empirical (and related) literature documenting the psychological effects of such isolation is presented. In addition, where useful and appropriate, these effects are considered in relation to both long- and short-term segregation. Moreover, the impact of SHU isolation for persons with preexisting mental illness is considered, and studies examining race, gender, and class dynamics are reviewed. Finally, mindful of the research to date, several recommendations for correctional policy reform are discussed.

### **Solitary Confinement in U.S. Prisons: Historical and Legal Considerations**

During the early 1800s, two prison systems developed in the United States: the Pennsylvania system and the Auburn system. The Auburn system, developed in New York, was characterized by silent but congregate labor. The Pennsylvania system was characterized by the rigid isolation of prisoners both from society and from each other. The Pennsylvania system was based on the premise that isolation and seclusion would give prisoners time to reflect on their crimes and become penitent—hence the term *penitentiary* (Rogers, 1993). The extreme isolation that was characteristic of the early prisons operating under the Pennsylvania system ultimately resulted in serious physical and psychological consequences for convicts (Kurki & Morris, 2001; Pizarro & Stenius, 2004). Because of this, the system was eventually discontinued (Grassian 1983; Haney, 1993; King, 1999). In 1890, the U.S. Supreme Court commented on the adverse effects of solitary confinement in prisons:

A considerable number of 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; while 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. (*In re Medley*, 1890)

The adverse psychological effects of solitary confinement were also documented in German prisons. These facilities were modeled on the early U.S. institutions. Numerous articles appeared in German medical journals chronicling the many cases of psychosis that were attributed to conditions of imprisonment (Grassian, 1983).

Despite the lessons learned during the 1800s about the devastating psychological impact of strict solitary confinement, the rigid isolation of prisoners has once again become a popular means of managing incarcerated deemed dangerous or disruptive in the general prison population (Mears, 2005). The development of supermaximum security units—also referred to as control units—can be traced to the opening of the United States Penitentiary (USP) in Marion, Illinois, in 1963 (Mears & Reisig, 2006). USP Marion served as a replacement for the federal prison at Alcatraz. The Alcatraz prison closed the year USP Marion opened. Alcatraz, and subsequently Marion, was designed to house federal prisoners who ostensibly posed significant management problems for correctional officials (Pizarro & Stenius, 2004). These prisons were also used to house prominent or notorious convicts, such as gangsters and political prisoners (Committee to End the Marion Lockdown, 1992). The Administrative Maximum Facility in Florence, Colorado, has since replaced USP Marion as the primary supermaximum security prison in the federal system (Kurki & Morris, 2001).

Over time, USP Marion increased its use of solitary confinement to coerce prisoners to participate in therapy and to control dissident convicts, such as those who led a work stoppage to protest the beating of a minority prisoner by a guard in 1972 (King, 1999). As the use of solitary confinement at USP Marion grew, so did the duration of internment. Many convicts remained in solitary confinement for several years. Ultimately, the entire prisoner population at USP Marion was restricted to the cells following the murders of two prison guards by incarcerated in 1983 (Committee to End the Marion Lockdown, 1992).

USP Marion has since become the model for state SHUs throughout the country (Kurki & Morris, 2001). According to the National Institute of Corrections, 34 state jurisdictions operated or had plans to operate 1 or more supermax facilities as of 1996 (Pizarro & Stenius, 2004). During this time, more than 55 control units operated nationwide, providing housing to nearly 20,000 prisoners (Mears & Reisig, 2006; National Institute of Corrections, 1997). More recently, based on a 2004 Urban Institute survey of self-identified supermax wardens, 44 states reported the presence of at least 1 facility, and these collectively house approximately 25,000 prisoners (Mears, 2005).

Typically, prisoners in the SHU are housed in small cells (often 6 × 8 feet) with solid steel doors. Incarcerates are confined in this manner for 22 to 23 hours per day.

They are usually allowed out of their cells for showers or solitary exercise for only a few hours per week. Their interactions with other convicts and with correctional staff are severely limited.

Generally speaking, SHU prisoners are not permitted any contact visits, and they are often required to talk with visitors via closed-circuit television. In addition, SHU prisoners do not benefit from any congregate activity, such as exercise, dining, or religious services. Access to personal belongings, including reading materials, is strictly limited. These convicts typically have no opportunity to work or participate in educational or therapeutic programming. Prisoners in control units are given insufficient room to exercise and often have no access to recreational or athletic equipment. Most SHUs lack windows, so incarcerates are not exposed to natural light. The cells are often illuminated by artificial light 24 hours per day, and prisoners have no means of controlling the brightness or dimness in their units. Under these conditions, convicts may have difficulty determining whether it is day or night. Prisoners are assigned to control units for indefinite periods of time, which typically last for months or years. Overall, SHU convicts are extremely isolated and are offered very limited mental stimulation (Committee to End the Marion Lockdown, 1992; Human Rights Watch, 2000).

Given scarce resources, prisons in general offer inadequate medical and psychiatric care. This is especially true in SHUs. In the case of *Madrid v. Gomez* (1995), the U.S. District Court for the Northern District of California was presented with a challenge to the conditions of confinement at the Pelican Bay State Prison SHU. The court found that Pelican Bay staff exhibited deliberate indifference to the health care needs of prisoners in the SHU. The medical services at the SHU were chronically understaffed, and medical personnel were provided inadequate training and supervision. Convicts were offered no routine physical examinations or other medical or psychiatric screenings. There were often significant delays in accessing health care or outright denial of health care services to prisoners.

Mental health services in particular were found to be markedly deficient at the Pelican Bay SHU. The court in *Madrid* determined that a significant number of prisoners at the correctional facility, both in the SHU and in the general population, suffered from serious psychological problems. As with other forms of health service, mental health staffing at Pelican Bay was found to be grossly inadequate. Pelican Bay offered no screening of incarcerates entering the SHU for psychiatric illness. Convicts who were mentally disordered or otherwise vulnerable to emotional problems were not screened out of the SHU. Because of inadequate screening for and monitoring of mental health conditions, many psychiatrically ill prisoners did not receive treatment until they became flagrantly psychotic or suicidal. Furthermore, the SHU offered a very limited range of intervention options for mentally disordered prisoners. There were no provisions for psychiatric inpatient treatment or intensive outpatient services for this population in the SHU. The *Madrid* (1995) court therefore determined that the Pelican Bay SHU was in a state of “mental health care crisis” (p. 1217). As such, the

court concluded that “conditions in the SHU [we]re sufficiently severe that they [could] lead to serious psychiatric consequences for some prisoners” (*Madrid v. Gomez*, 1995, p. 1216).

The inadequate system of psychiatric care documented in *Madrid* is not limited to the SHU at Pelican Bay State Prison. Similar conditions were documented at Wisconsin’s Supermax Correctional Institution at Boscobel in the case of *Jones ’El v. Berge* (2001). In *Jones ’El*, the U.S. District Court for the Western District of Wisconsin documented a strikingly deficient ratio of mental health staff to incarcerates in the facility. The supermax at Boscobel was described by psychiatrist and expert witness Terry Kupers as using inadequate methods for screening incoming prisoners for mental illness. Despite efforts to screen psychiatrically disordered convicts out of the supermax, many prisoners were found to be suffering from serious mental illness. The court also noted that ongoing monitoring of the prisoners’ mental health was woefully inadequate.

The conditions of confinement in the SHU are typically characterized by hostility and violence (Cockburn, 2001; Mears & Watson, 2006). Incarcerates are shackled and restrained whenever they are in the presence of others. They are accompanied to showers and exercise under heavy guard. Correctional officers frequently employ violent cell extractions in response to minor infractions committed by convicts, such as failure to return a food tray. During cell extractions, prisoners are subdued with batons, shields, Tasers, and rubber bullets. The use of force in SHUs is often excessive. This was reported by the U.S. District Court for the Northern District of California in *Madrid v. Gomez* (1995). In the *Madrid* case, the court found that SHU staff engaged in assaults on prisoners, used fetal restraints for hog-tying convicts, caged incarcerates outdoors in inclement weather, relied on unnecessary and violent cell extractions, and employed the unnecessary and reckless use of lethal force.

The characterization of SHU convicts as being “the worst of the worst” contributes to an us-against-them mindset among correctional staff. This orientation serves only to heighten the potential for the abuse of prisoners (Mears & Reisig, 2006). However, the primary purpose of SHUs is to exercise complete control and dominion over convicts (Jackson, 2001). Typically, prisoners are assigned to the SHU because they are thought to be too violent and dangerous to be managed in the general population (Mears & Reisig, 2006). The public’s impression is that SHUs are reserved for the vilest and most despicable offenders in the U.S. penal system. Thus, the severe confinement conditions are justified and deemed necessary to maintain the security of the prison, the safety of the correctional staff, and the welfare of other prisoners (Pizarro & Stenius, 2004). However, in reality, most convicts in SHUs are not incorrigibly violent (Haney, 2003). Prisoners are often placed in the SHU because they accumulated a number of nonviolent disciplinary infractions, because they were identified as gang members, or because they were involved in a single fight. SHUs are also used to suppress activity defined as dissident. Examples of this dissidence include protesting prison conditions, assisting other convicts with habeas corpus

appeals, or initiating litigation against correctional administration. Typically, the conditions of confinement in the SHU are excessively severe relative to the prison's legitimate security and management objectives (Human Rights Watch, 2000).

In addition to providing strict control over convicts, SHUs are politically popular among those who advocate for the extremely harsh punishment of criminal offenders (Cockburn, 2001; Kurki & Morris, 2001; Mears, 2005). The general public's perception is that crime is increasing, and the public's fear of crime has correspondingly risen (Walker, 2006). As fear of crime grows, legislators frequently campaign for harsher correctional policies, including three-strikes legislation and longer prison sentences under stricter conditions (Reiman, 2005).

## **The Psychological Effects of Solitary Confinement on Prisoners**

### **Long-Term Segregation**

The damaging psychological consequences of long-term solitary confinement have been well documented (e.g., Grassian, 1983; Grassian & Friedman, 1986; Haney, 2003, 2006; Jackson, 2001). The adverse effects of solitary confinement appear to be related primarily to the duration and conditions of internment (Haney, 2003). Although it has not been conclusively established that short periods of segregated housing produce negative outcomes for the emotional well-being of incarcerated, long-term solitary confinement does, especially in relation to the psychological adjustment of prisoners.<sup>2</sup>

Haney (1993, 2006) described the psychological consequences of and adaptations to long-term solitary confinement particularly well. Haney served as an expert witness for the plaintiff convicts in a class-action suit challenging the conditions of confinement in the SHU at Pelican Bay State Prison in California (*Madrid v. Gomez*, 1995). As noted above, the SHU at Pelican Bay is a particularly notorious example of the extreme social isolation found in supermaximum custody units. Prisoners at the SHU are almost completely isolated from human contact and receive virtually no opportunity for mental stimulation or activity.

Haney (2006) pointed out that the rigid conditions of solitary confinement offer individuals no opportunity to engage in social reality testing. Human beings rely on social contact with others to test and validate their perceptions of the environment. Ultimately, a complete lack of social contact makes it difficult to distinguish what is real from what is not or what is external from what is internal. As Haney (1993) explained, "Social connectedness and social support are the prerequisites to long-term social adjustment" (p. 7).

Haney (1993) noted that in the absence of social context people become "highly malleable, unnaturally sensitive, and vulnerable to the influence of those who control the environment around them" (p. 5). Paradoxically, long-term social isolation often leads to social withdrawal. Individuals move from craving social contact to

fearing it. Prisoners housed under conditions of confinement such as those found at the SHU grow to rely on the prison structure to limit and control their behavior. A consequence of this is that convicts are no longer able to manage their conduct when returned to the general prison population or when released to the community. Alternatively, incarcerated may become unable to initiate behavior on their own due to severe apathy and lethargy. Convicts may resort to acting-out behavior as a means of testing their environment, or they may retreat into fantasy. Haney (2003) indicated that prisoners in the SHU experience intolerable feelings of frustration, anger, and rage. Rageful acting out by offenders is often used to justify the conditions of their confinement; however, he noted that “rage is a reaction against, not a justification for, their oppressive confinement” (Haney, 1993, p. 5).<sup>3</sup>

Haney (2006) also cautioned that prisoners in long-term solitary confinement are at increased risk for developing symptoms of mental illness. Social isolation is correlated with clinical depression and long-term impulse-control disorder. Prisoners with pre-existing mental illness are at particular risk for developing psychiatric symptoms in solitary confinement. Psychosis, suicidal behavior, and self-mutilation are commonly seen among prisoners in long-term solitary confinement. In addition, offenders with mental illness are already at increased risk for being placed in solitary confinement because they have difficulty adjusting to prison and are often unable to manage their behavior in the correctional population (Haney, 2003). Behavior that stems from mental illness is often used as a justification to place convicts with mental illness in the SHU. To compound the problem, psychiatric resources are scarce in the overcrowded prison system. As noted above, adequate psychiatric evaluation and treatment is typically not available in control units such as the SHU.

The adverse psychological consequences of long-term solitary confinement have also been documented by Grassian (1983). He conducted psychiatric evaluations of 14 prisoners who were plaintiffs in a class-action lawsuit challenging the conditions of their solitary confinement at the Massachusetts Correctional Institution at Walpole. These offenders were housed in 1.8 m × 2.7 m cells with solid steel doors that were kept closed, shutting off any contact prisoners may have had with staff or other prisoners. Each cell was illuminated by a single 60-watt bulb and had no natural light. Prisoners were allowed no personal belongings, including reading materials, except for a Bible. The convicts were housed under these conditions for a median period of 2 months.

Grassian (1983) identified a psychopathological condition, known as SHU syndrome, among these prisoners (see also Kupers, 1999). SHU syndrome is characterized by perceptual changes; affective disturbance; difficulty with thinking, concentration, and memory; disturbance of thought content; and problems with impulse control. Grassian found that these incarcerated were hypersensitive to external stimuli and frequently experienced distortions of perception, hallucinations, or feelings of derealization. Most convicts suffered extreme generalized anxiety and symptoms of panic disorder. Many offenders were confused, and some suffered amnesia for some

of the events that occurred during their confinement. Many prisoners reported frightening and disturbing violent fantasies of revenge against their captors. Many suffered paranoia and believed they were being persecuted. Several prisoners reported problems with impulse control, characterized by violent or destructive behavior or acts of self-mutilation. Notably, most of these offenders had no previous history of psychiatric problems. In all cases, their symptoms subsided after they were released from segregated housing. Grassian noted that the effects of solitary confinement varied according to the degree of social isolation and sensory deprivation that was imposed. Thus, as he concluded, "The use of solitary confinement carries major psychiatric risks" (p. 1454).<sup>4</sup>

Grassian and Friedman (1986) discussed some of the factors that influence how an individual will respond to segregated housing. They noted that individuals exhibit different responses to this form of containment, with some individuals demonstrating greater ability to tolerate it than others do. Grassian and Friedman identified the complexity of sensory deprivation, the duration of the confinement, and the prisoner's perception of the internment's purpose as important variables influencing the effect of solitary confinement on prisoners. They also noted that the individual prisoner's personality organization affected his ability to tolerate solitary confinement and the development of psychiatric symptoms.

With regard to the complexity of the sensory deprivation associated with solitary confinement, Grassian and Friedman (1986) indicated that the quality and intensity of the available stimuli were important. For example, the amount of light, the quality of light, the size of the room, the ability to perceive sounds in the surrounding environment, and the color and appearance of the environment were all essential components to the convicts' experiences of solitary confinement.

The duration of the isolation was also significant in predicting adverse psychological consequences. For example, Grassian and Friedman (1986) noted that the length of solitary confinement at the Massachusetts Correctional Institution at Walpole was too long to protect against serious psychological harm. Prisoners at Walpole were isolated continuously behind solid steel doors for up to 15 days at a time.

Grassian and Friedman (1986) also reported that the individual's expectation and perception of the containment's purpose was important. Solitary confinement that was perceived as punitive produced greater potential for adverse psychological effects. For example, the convicts evaluated by Grassian and Friedman at Walpole perceived their isolation as a deliberately punitive attempt to drive them crazy. Other researchers have also indicated that the prisoner's perception regarding the purpose of solitary confinement and the manner in which the offender is treated while in segregation influence whether the convict will suffer adverse psychological consequences (Jackson, 2001; Suedfeld, 1974; Suedfeld, Ramirez, Deaton, & Baker-Brown, 1982; Zinger, Wichmann, & Andrews, 2001).

Finally, Grassian and Friedman (1986) noted that the individual's personality organization affected how the person responded to solitary confinement. As the

investigators explained, the personality types generally found in prisons were particularly vulnerable to the adverse psychological effects of solitary confinement. Overall, Grassian and Friedman concluded that greater degrees of sensory deprivation and longer periods of internment were most likely to produce the psychopathological SHU syndrome described by Grassian (1983) in his previous work.<sup>5</sup>

### **Short-Term Segregation**

Although the psychological consequences of long-term solitary confinement on prisoners have been demonstrated, there is less evidence that short-term solitary confinement has similar deleterious effects.<sup>6</sup> However, much of the research on the effects of short-term administrative segregation has been conducted under carefully controlled conditions. As such, these conditions do not typify the experience of most prisoners subjected to secure isolation (Haney, 2006).

Bonta and Gendreau (1990) reported on the effects of imprisonment, including prison crowding, long-term confinement, short-term detention, death row, and segregated housing. They examined the assumption that prison life is destructive to the psychological and emotional well-being of those confined. They concluded that the evidence supporting the “pains of imprisonment” was “inconclusive” (p. 347). Moreover, they suggested that individual differences in adapting to incarceration and a situation-by-person approach represented better predictors regarding the effects of imprisonment (see also H. A. Miller, 1994).

With respect to short-term administrative segregation, Bonta and Gendreau (1995) noted that “solitary confinement may not be cruel and unusual punishment under the humane and time-limited conditions investigated in experimental studies or in correctional jurisdictions that have well-defined and effectively administered ethical guidelines for its use” (p. 86). Indeed, in actual practice, the environmental circumstances of solitary confinement do not resemble the safe and sanitized conditions that are typical of research studies (Zinger & Wichmann, 1999). Moreover, as Roberts and Jackson (1991) asserted, the effects of short-term incarceration may not be revealed in experimental research because of the limitations of the instruments used to measure psychological consequences.<sup>7</sup>

Similarly, Zinger et al. (2001) did not find evidence of psychological deterioration among Canadian prisoners who spent 60 days in administrative segregation. However, they commented that their findings were not applicable to the United States, where offenders remained in segregation for longer periods of time under harsher conditions of confinement than their Canadian counterparts. Zinger and his colleagues also noted that the nature and quality of prisoner–staff interaction affected how well convicts coped with their temporary administrative segregation. As described above, correctional staff typically harbored very negative views of prisoners in solitary confinement. Abusive or capricious behavior by staff, documented in SHUs in the United States, can also lead to increased psychological stress (Haney & Lynch, 1997; Toch, 2001).

Roberts and Gebotys (2001) pointed out that although Zinger and his research team found no detectable psychological deterioration among prisoners who spent 60 days in administrative segregation, even short-term solitary confinement may have subtle effects on psychological functioning that are not so easily discernible. Furthermore, Jackson (2001) asserted that punitive, short-term isolation might have a long-lasting impact on offenders. Specifically, Jackson explained that qualitative analyses of prisoners exposed to solitary confinement revealed that incarcerates were at risk for developing post-traumatic stress disorder.

Suedfeld and his colleagues (1982) also studied convicts in solitary confinement. They concluded that “there was no evidence to support the hypothesis that SC [solitary confinement] [was] universally or uniformly aversive or damaging to prisoners” (p. 330). However, the investigators did acknowledge that adverse psychological effects were more often observed with longer durations of administrative segregation. Moreover, they conceded that certain conditions of internment, such as maltreatment by staff or lack of access to sensory stimuli, were likely to produce negative psychological consequences. These are the very conditions that are typical of long-term solitary confinement in U.S. prisons today (*Madrid v. Gomez*, 1995; *Jones 'El v. Berge*, 2001). Finally, Suedfeld et al. noted that certain personality types demonstrated less tolerance for the stress of secure isolation. It is important to note that psychotic or suicidal prisoners were excluded from the study conducted by Suedfeld and his associates. This is important because in the United States mentally disordered prisoners are frequently placed in solitary confinement (Haney, 2006; Haney & Lynch, 1997).

### **Solitary Confinement: Other Possible Uses**

Some researchers advocate the use of solitary confinement in prisons as a rehabilitative technique (Rogers, 1993; Suedfeld, 1974; Suedfeld & Roy, 1975). For example, Suedfeld (1974) supported the use of convict isolation “in a moderate and carefully controlled way, in conjunction with a sensible rehabilitative system” to help prisoners “develop non-criminal styles of life” (p. 18). In addition, Rogers (1993) proposed a model in which incarcerates would spend their entire sentences in solitary confinement to reduce costs and maintain prison security. However, even these social scientists acknowledged that some individuals could not psychologically tolerate solitary confinement. Indeed, although Rogers minimized the risk of adverse psychological consequences, he noted that under his model some “personality types” would have to be screened out to prevent “psychological regressions” (p. 345). Similarly, Suedfeld admitted that some prisoners could not endure segregated housing.

### **Summary on Long- and Short-Term Segregation: Rethinking the Psychological Effects**

Research indicating that solitary confinement does not have psychologically damaging effects on prisoners is not representative of the conditions of secure isolation in U.S.

correctional facilities. Furthermore, nearly all investigators acknowledge that long-term segregation, mistreatment by correctional staff, and preexisting psychological vulnerability are all apt to result in negative mental health consequences for convicts. In addition, although the psychological consequences traceable to short-term segregation as described in the extant research suggest minimal deleterious effects, the environmental conditions under which such investigations proceed are themselves the source of some debate, compromising or, worse, undermining the validity of these evidenced-based findings. Moreover, with regard to short-term segregation, the assessment instruments employed in experimental research may be ill equipped to detect the subtle psychological consequences stemming from exposure to secure isolation.

### **Vulnerability of Prisoners With Preexisting Mental Illness**

It has been amply demonstrated that the conditions of solitary confinement can produce psychopathology even in healthy prisoners. Convicts with preexisting mental illness are especially vulnerable to suffering damaging consequences from such routine confinement. Indeed, mentally disordered offenders are at greater risk for being placed in SHUs. For example, in 1997, Human Rights Watch estimated that 5% of the general prison population experienced some form of psychiatric illness, whereas more than half of the prisoners in SHUs were mentally disordered. Given the scarce psychiatric resources in correctional facilities, many incarcerates suffer from debilitating and undiagnosed psychiatric disorders for which they receive no treatment. These prisoners are ill equipped to control their behavior and to conform to the rules of the facility (Cockburn, 2001).

Behavior stemming from psychiatric illness is often used as justification to place prisoners in solitary confinement (Haney, 2003, 2006; Human Rights Watch, 1997; Jackson, 2001; McCorkle, 1995). For example, prisoners with mental disorders are more likely to refuse to come out of their cells, to destroy property, to set fires, to smear urine and feces, or to engage in self-mutilation than are their non-mentally ill counterparts. In addition, psychiatrically disordered offenders may be at a greater risk for both violence toward and victimization by other prisoners (McCorkle, 1995). Indeed, McCorkle found that male prisoners suffering from mental illness were more likely to be confined in a maximum security facility or SHU than were female prisoners similarly suffering from mental illness. Both men and women with prior or present psychiatric disorders had significantly more rule infractions than did their non-mentally ill counterparts.

The extreme isolation and harsh conditions of confinement in SHUs typically exacerbate the symptoms of mental illness (Kurki & Morris, 2001). Recently, this position was described by psychiatrist Terry Kupers. Testifying as an expert witness for the plaintiff prisoners in a suit challenging the conditions of confinement at Wisconsin's Supermax Correctional Institution, Kupers indicated that isolation and

inactivity in the unit aggravated and worsened a person's psychiatric disorder by depriving the prisoner of any opportunity for reality testing (*Jones 'El v. Berge*, 2001).

The *Jones 'El* case focused specifically on the effects of supermaximum security confinement on convicts with mental illness. The court acknowledged that "confinement in a supermaximum security prison . . . is known to cause severe psychiatric morbidity, disability, suffering, and mortality" (*Jones 'El v. Berge*, 1995, p.1101). Thus, the court held that placing a seriously mentally disordered prisoner in such a facility violated the cruel-and-unusual-punishment clause of the Eighth Amendment.

## Race, Gender, and Class

In general, incarcerated persons in the United States are disproportionately poor, minority men. Similarly, prisoners in long-term solitary confinement disproportionately represent economically disadvantaged people of color (Haney & Lynch, 1997). For example, Haney and Lynch reported that 90% of a random sample of convicts in punitive isolation at a California prison was composed of minorities. Seventy percent of the members of that sample were Latinos. Haney and Lynch remarked that this overrepresentation of minority prisoners, particularly Latinos, might be due to the prison's policy of placing alleged gang members in solitary or supermaximum security confinement.

Several studies have documented the differential treatment of Black offenders compared to White offenders in terms of disciplinary action for prison rule violations. For example, Ramirez (1983) found that Black convicts received a disproportionate number of conduct reports compared to their White counterparts in a medium-security federal correctional institute. In addition, Ramirez indicated that a disproportionate number of Black prisoners received multiple conduct reports. Ramirez explained that there were more opportunities for extralegal factors such as race to influence treatment in the criminal justice system at stages where officials were afforded greater discretion. Because of the relative seclusion of prisons from the public view, prison officials had significant discretion.

Similarly, Poole and Regoli (1980) found that Black and White offenders were equally likely to commit prison rule infractions; however, Black convicts were more likely to be written up for rule violations. Furthermore, prisoners who received prior disciplinary write-ups were also more likely to obtain them for infractions in the future.

Poole and Regoli (1980) noted that this process served to reinforce correctional officers' stereotypical conception of Black prisoners as aggressive and more prone to rule breaking. As they indicated, "To guards, given their stereotypic conceptions, a pattern of greater control of black inmates having a history of disciplinary infractions represents sound custodial practice" (p. 944). As correctional officers increase their attempts to control Black prisoners, convicts respond with increasing hostility. In this way, correctional officers may inadvertently cause the very behavior they are attempting to control.

This differential treatment of White versus non-White convicts is mirrored in the treatment of prisoners in SHUs (Mears & Watson, 2006). Given that non-White prisoners are more likely to be perceived as dangerous and disruptive in prison, they are more likely to be placed in solitary confinement for disciplinary infractions. While working in the SHU, prison staffers are afforded greater discretion in the treatment of offenders than when not working in segregated housing. This is because of the heightened isolation found within these units and the fact that they are generally not accessible to public scrutiny.

Gender issues are also relevant in the discussion of solitary confinement and its effects on prisoners (Mears, 2005; Mears & Reising, 2006). Indeed, the placement of women in punitive isolation presents special concerns. Although incarcerated persons in the United States are disproportionately male, the rate of incarceration for women has increased dramatically over the past 20 years (McCorkle, 1995; Shaylor, 1998).

Shaylor (1998) described the conditions at the SHU at Valley State Prison for Women in Chowchilla, California. SHU conditions in women's prisons are very similar to those in men's facilities; however, Shaylor noted that women face unique challenges. For example, women convicts in the SHU are particularly vulnerable to sexual harassment and abuse by male correctional staff. Male guards are able to view women prisoners in the shower and on the toilet. Moreover, male correctional officers are often present when women prisoners are strip-searched. In addition, cell extractions are typically performed by male guards, making the experience particularly traumatic for women. Violent cell extractions by male correctional officers may trigger post-traumatic stress reactions in women subjected to prior trauma such as rape. Shaylor also argued that women are more likely than men to be sent to the SHU for minor infractions. For example, women may be placed in punitive isolation for attempted suicide. Shaylor concluded that harsh treatment of female prisoners is used to control women who fail to conform to societal standards of femininity. As she noted,

A central function of prisons in general is to punish women who fail to subscribe to a model of femininity that historically has been (re)produced in discourse as white, pure, passive, heterosexual, and located in motherhood. When women operate outside of this model, even slightly, they are disciplined harshly for doing so. (Shaylor, 1998, p. 394)

Minority women are more likely than White women to be perceived as aggressive or otherwise nonfeminine. Thus, they may be subjected to harsher treatment in prison and in solitary confinement. Similar to male convicts in solitary confinement, Shaylor (1998) found that minority women were overrepresented in SHUs as compared with nonminority female offenders. Likewise, McCorkle (1995) found that African American women prisoners suffering from mental illness reported being cited for rule infractions at a rate that was significantly greater than what was reported by White women prisoners with mental illness.

## Recommendations for Reform of SHUs

The extant research on the psychological effects of solitary confinement for prisoners suggests a number of recommendations for the reform of SHU or supermaximum custody units (Mears & Watson, 2006; Toch, 2001, 2003). Human Rights Watch (2000) generated a number of recommendations for reform as well. Haney and Lynch (1997) also proposed a set of "limiting standards" for the use of supermaximum security confinement. Accordingly, the comments that follow incorporate several insights from these respective proposals.

Chief among the recommendations for reform is that prisoners with current or prior histories of psychiatric disorder should be excluded from punitive isolation. Prisoners whose dangerous or disruptive behavior stems from mental illness would be more appropriately managed in a secure unit specifically designed to provide treatment to mentally disordered offenders. To be clear, prisoners with past histories of psychiatric illness are vulnerable to psychological deterioration in solitary confinement. Therefore, they should not be placed in these containment facilities. Prisoners entering SHUs should be carefully screened by competent mental health professionals. Moreover, these convicts should be closely monitored to ensure that they do not develop psychological problems. In addition, prisoners should be afforded privacy when meeting with mental health professionals. If offenders believe that their conversations with trained professionals are monitored by correctional staff or overheard by other prisoners, they will be less inclined to disclose any problems they may be experiencing. Finally, prisoners who decompensate in solitary confinement should be removed from the SHU immediately and should be offered appropriate psychiatric treatment.

A second important recommendation is that staff abuses of convicts in SHUs should be strictly prohibited. Many researchers have suggested that the adverse psychological consequences of solitary confinement are significantly related to the way prisoners are treated by correctional personnel (Bonta & Gendreau, 1995; Rogers, 1993; Suedfeld et al., 1982). Correctional staff must be appropriately trained and supervised. Moreover, they should be held accountable for any physically or verbally abusive treatment directed toward prisoners. In addition, staff should receive training in conflict resolution and other techniques designed to peacefully resolve disputes with prisoners in a way that respects the humanity of the convict.

A third recommendation for reform is that the SHU maintain humane physical conditions of confinement. Prisoners should be housed in cells that are clean, well ventilated, and exposed to natural light. Offenders should be allowed to control the artificial light in their own cells. Prisoners should never be isolated behind solid steel cell doors. Convicts in SHUs should have access to personal belongings, including reading material. Prisoners should be given sufficient space for exercise, and they should be permitted to use recreational equipment.

A fourth recommendation is that prisoners should be offered opportunities for normal and ongoing social interaction. It is extremely important that SHU convicts be allowed some prospect for congregate activity, such as dining, exercise, educational programming, or religious services, with other prisoners. This regular social contact enables prisoners to engage in reality testing that is critical for maintaining mental health. Activities such as these also provide an appropriate level of sensory stimulation. In addition, prisoners should be permitted (and encouraged to have) frequent contact with their families or other visitors under conditions that facilitate communication. Regular visits with family members are important in helping offenders make a successful transition from prison to the community after they are released.

Finally, the duration of internment should be limited. Prisoners should never be subjected to indefinite periods of solitary confinement. This suggestion is supported by evidence demonstrating that the adverse psychological effects of punitive isolation are related in part to the duration of the confinement (Grassian & Friedman, 1986; Suedfeld et al., 1982). Moreover, this proposal is supported by the standards published by the American Correctional Association (Haney & Lynch, 1997).

## Summary and Conclusion

Short- and long-term solitary confinement of convicts for disciplinary or administrative purposes has become an increasingly popular means of controlling prisoner populations in the United States. This trend is evidenced by the proliferation of supermaximum security units in correctional facilities throughout the United States (Kurki & Morris, 2001; Mears & Reisig, 2006; Pizarro & Stenius, 2004). The SHU allows administrators to exert almost total dominion over incarcerated inmates deemed dangerous or dissident in the prison population. These units are also politically popular, as public fear of crime leads to increasingly punitive crime control policies. However, the use of supermaximum security units remains constitutionally suspect. The near-complete social isolation and lack of stimulation accompanying this segregation raises serious civil rights questions.

This article principally discussed the psychological impact of solitary confinement on inmates completing their prison sentences at supermaximum security units. As we argued, long-term isolation can have emotionally devastating consequences for convicts. The impact of short-term segregation, although less dramatic as reported in the empirical literature, nonetheless remains a source of some debate. Moreover, the psychological effects of solitary confinement are related, in part, to the duration and conditions of the isolation. Prisoners with preexisting mental illnesses are especially vulnerable to the destructive psychological effect of segregated housing. The lack of adequate medical and psychiatric care—in prisons in general and in supermaximum security units in particular—compounds these problems. In

addition, convicts in the SHU are uniquely susceptible to physical and verbal abuse by staff. These hostile conditions of confinement increase the risk that prisoners will suffer emotionally crippling effects from punitive and administrative isolation.

This article also discussed the effect of race and gender on the decision to place incarcerates in supermaximum security confinement. Researchers have demonstrated that poor, minority convicts are more likely to be placed in the SHU than are their nonminority counterparts. Furthermore, women are uniquely vulnerable to the traumatizing effects of long-term solitary confinement.

Given what we know about the destructive effects of SHU isolation, a number of recommendations for reform were presented. These reforms included (a) excluding mentally disordered convicts from SHUs; (b) strictly prohibiting abusive treatment of prisoners by staff; (c) providing humane, physical conditions of internment; (d) allowing prisoners opportunities for normal social interaction; and (e) limiting the duration of solitary confinement.

Future research would do well to focus on identifying feasible and humane alternatives to the use of segregated housing as a prison management tool. Among other things, these alternatives could include policies that strictly limit (or abolish) the use of punitive isolation. In addition, programming that meaningfully addresses the needs of high-risk prisoners, including those with preexisting psychiatric illness, certainly would be worthwhile.

## Notes

1. We note the distinction between disciplinary segregation and administrative segregation as discussed in the literature (e.g., Blanchette, 2001; Haney, 2006; Roberts & Gebotys, 2001; *Sandin vs. Conner*, 1995; Zinger & Wichmann, 1999; Zinger, Wichmann, & Andrews, 2001). However, this article emphasizes the psychological effects that stem from solitary confinement generally, regardless of its correctional form, particularly for those confined in a supermax prison. Admittedly, the conditions of confinement, the attitude and behavior of the staff, and the experiences and outlook of inmates may be quite different (e.g., Bonta & Gendreau, 1990). Nonetheless, "isolation research supports the notion that greater levels of deprivation contribute to more psychological and emotional problems" (Pizarro & Stenius, 2004, p. 255; see also, Toch, 2001). This position obtains whether for the purpose of protective custody or punishment (Haney, 2006; Kupers, 1999; H. A. Miller, 1994).

2. However, evidence in support of the negative consequences of solitary confinement, even the most extreme, rests principally on case study data, testimonials, availability heuristics, and anecdotal reporting. Scientifically speaking, these data represent weak evidence, necessitating validation through sound quasi-experimental designs. Complicating the procurement of such evidence-based analyses is the highly politicized nature of the U.S. prison system generally. Regrettably, this condition makes any assessment of the iatrogenic effects of solitary confinement very unlikely.

3. Certainly, the pathological behavior exhibited by those in solitary confinement could well have existed in much less severe lock-up conditions or even on the street. Indeed, the importation and psychological "deep freeze" theories of Thomas, Peterson, and Zingraff (1978) and Zamble and Porporino (1988) aptly make this point. In short, the behavior of incarcerates may have less to do with the conditions of confinement than with their personality makeup and their coping mechanisms that are themselves longstanding character traits. Empirical research on the psychological effects of solitary confinement has

yet to systematically account for these potential confounds. For a thoughtful analysis examining the complexities of prison adjustment in general, mindful of various individual, environmental, and interactive effects, see Wright (1991) and in relation to supermax facilities in particular, see Mears and Watson (2006).

4. Admittedly, Grassian's (1983) research findings could be questioned on the basis of several response bias artifacts, especially given the small sample size. However, more recent clinically oriented studies provide some support for Grassian's overall findings (see, e.g., Toch, 2001, 2003, especially in relation to supermax facilities).

5. It is worth noting, however, that the classic sensory deprivation literature reports that the dramatic effects of extreme sensory deprivation—as a pure form of solitary confinement—have yet to be replicated due to response bias on the part of the researchers (e.g., Zubeck, 1969). The lack of replication studies focused on an acute and chronic stimulus-reduced environment (i.e., no light, no sound, and no sensation) within the sensory deprivation literature raises questions about the validity of those findings that point to the harmful effects of sensory deprivation in a prison-based solitary confinement setting.

6. Contributing to this position is the fact that much of the isolation research examining the psychological consequences of short-term segregation emphasizes administrative confinement only. The absence of studies focused specifically on short-term segregation for disciplinary and/or punitive purposes represents a serious deficiency in the literature and a significant limitation to the present inquiry.

7. Overall, methodological and assessment concerns here cluster around five key issues: (a) the failure to administer pretests, (b) the failure to review an inmate's pre-segregation psychological and/or behavioral record, (c) the failure to disaggregate those who volunteer to be placed in solitary confinement from those who do not, (d) relying on and generalizing from small sample sizes, and (e) drawing inferences from isolated inmates with special circumstances (e.g., those that file class-action lawsuits for their treatment while segregated in control units; Pizarro & Stenius, 2004). These concerns can lead to erroneous evaluative findings, making it difficult—if not impossible—to explain and predict accurately the psychological effects of solitary confinement.

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