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Advancing the Study of Solitary Confinement

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Abstract

Solitary confinement has been used as a means of controlling inmates since the inception of the first prison. Correctional agencies use solitary confinement for two purposes: safety and punishment. Unfortunately, neither purpose has been explored extensively in the research to test the underlying theory of solitary confinement despite the potential benefit such information could have on the field. Instead, most experimental studies have examined whether or not solitary confinement is used appropriately or produces any adverse effects. This review summarizes what is currently known about solitary confinement and advocates for shifting the focus of future research to address the question of whether or not the practice is achieving its intended theoretical goal – increased safety and security.

Keywords: Solitary confinement, administrative segregation, punitive segregation

INTRODUCTION

Solitary confinement has been used as a means to deal with serious inmate behavior since the inception of the first prison (Foucault, 1995). Over the past two decades, the use of solitary confinement has increasingly become more popular in the United States (Haney, 2008; O’Keefe, 2008) and Canada (Wormith, Tellier, & Gendreau, 1988). Given the extensive use of solitary confinement in North American prisons, this evidentiary review seeks to provide the criminal justice system with a better understanding of the underlying theory and empirical evidence regarding the practice.

Correctional agencies use solitary confinement for two purposes: safety and punishment. Unfortunately, neither purpose has been explored extensively in the research. Instead, the vast majority of empirical studies have examined whether or not solitary confinement is harmful to offenders by (a) disproportionately targeting certain offenders and (b) producing adverse physical and psychological effects on offenders.

This review of the literature reveals two basic findings. First, there does appear to be some disparity in which inmates are placed in solitary confinement. Namely, younger, male inmates with severe mental illness and more extensive criminal histories tend to be overrepresented in the solitary confinement population. Thus, the debate in this area is not about what types of offenders are placed in solitary confinement, but rather it is over the fairness (or constitutionality) of such placements.

Second, the results from the physiological and psychological effects studies are not conclusive. However, from the mixed findings of poorly designed methodological studies, there has emerged a debate in the field as to whether or not solitary confinement produces any harmful effects. One side insists that solitary confinement is detrimental to the psychological well-being

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of inmates (Grassian, 1983; Grassian & Friedman, 1986; Haney, 2003; 2008; Jackson, 1983; 2003; Smith, 2006), while the other side maintains that there are no serious long-term effects (Bonta & Gendreau, 1990; Ecclestone, Gendreau, & Knox, 1974; Gendreau, Freedman, Wilde, & Scott, 1968; 1972; Gendreau & Bonta; 1984; Gendreau & Theriault, 2011; O’Keefe, 2008; O’Keefe, Klebe, Stucker, Sturm, & Leggett, 2010; Suedfeld, Ramirez, Deaton, & Baker-Brown, 1984; Zinger, Wichmann, & Andrews, 2001).

Much debate centers on these two issues, and the available research is used to inform correctional policy decisions and changes in practice. Lacking strong empirical support, many of the recommendations from this research have been criticized for being based merely on “personal revulsion, unsupportable generalizations, or far-fetched arguments by analogy” (Suedfeld et al., 1982, p. 337). As such, it is helpful to examine the empirical evidence concerning these two issues before addressing whether or not solitary confinement is an effective administrative policy.

In sum, past research has been too narrowly focused on whether solitary confinement is used appropriately or has any adverse effects. Far too little has been done to test the underlying theory of solitary confinement – that solitary confinement enhances safety and/or has a deterrent effect – despite the potential benefit such information could have on the field. The main purpose of this review is to summarize what is known about solitary confinement in order to expand the scope of future research. This work seeks to shift the focus of solitary confinement research to address the question of whether or not the practice is achieving its intended theoretical goal – increased safety and security.

SOLITARY CONFINEMENT

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Solitary confinement is the prisons' answer to dealing with difficult to manage inmates within the institution, just as prison is society's solution for dealing with criminals in the community. Corrections officials use solitary confinement as a means of isolating (or segregating) inmates from the general population for both disciplinary and administrative purposes. Essentially, segregation is considered as "detention" within the institution.

Types of Solitary Confinement

There are two types of solitary confinement. The first type is *punitive segregation*, which is a response to a disciplinary infraction after a due process hearing and a finding of guilt. Prisoners found guilty of serious institutional misconduct are often placed in segregation for a specific period of time (e.g., 30, 60, or 90 days). Examples of these violations include physically assaulting staff or other inmates, being involved in a disturbance or riot, possessing or dealing contraband (e.g., alcohol, drugs, or weapons), escaping, or engaging in other types of dangerous activities. At the end of the detention period, prisoners receive a "custody review," and may either return to the general prison population or remain in segregation longer, which is usually contingent upon their behavior while in solitary confinement.

The second type is *administrative segregation*, which may be either voluntary or involuntary. Prisoners can be placed in administrative segregation for either protective custody purposes (e.g., sex offenders, informers, or others despised by fellow inmates) or a variety of security safety reasons (e.g., security threat group affiliation, serious instant offense, suspicion of future crime). Given the nature of their placement (i.e., safety, security), administrative segregation prisoners are often held in segregation for undisclosed periods of time.

Solitary confinement is often referred to as "administrative segregation," "security housing unit," "control unit," "intensive management unit," or "extended control unit" and

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typifies the most restrictive housing in which a prisoner can be legally placed while incarcerated. Such settings may be limited to specific units within an institution or may comprise an entire facility – as in the case of the super-maximum prison.

The Solitary Confinement Setting

In an effort to reduce violence and other serious prison disruptions, solitary confinement provides increased controls over inmates. Although the physical conditions and routines of solitary confinement may vary across prisons, there are some common features and routines in such settings. Solitary confinement is typically defined as the restriction to a single-bunk cell for 23 hours per day, allowing just one hour out of the cell for personal hygiene and exercise. A typical solitary confinement cell measures 6 to 8 feet in width, 10 feet in length, with an 8-foot ceiling (Lanes, 2011). Often the only view out of the cell is through a small window located on the solid steel cell door, which is only open briefly for staff to peer through during security rounds. The other staple of the segregation unit is the waist high door hatch that allows staff to pass prisoners things like food and mail. This hatch is also used to apply handcuffs or other restraints whenever the prisoner is moved from his or her cell to another location within the facility (e.g., medical). Inmate movement is severely restricted and all personal contact – even with staff – is kept to a minimum. The inmate’s family is generally allowed to visit on a limited basis, but there is a physical barrier (i.e., plexiglass) that separates the inmates from visitors. Finally, solitary confinement units have almost no access to educational or recreational activities or other sources of mental stimulation (Human Rights Watch, 2000).

PREDICTORS AND FAIRNESS

Among the many controversial issues that solitary confinement practices raise, are concerns about the overrepresentation of certain types of inmates placed in segregation. Within

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the available research four domains have been found most often to correlate with offender placement solitary confinement: serious mental illness, personality characteristics (e.g., argumentative, impulsive, hostile, easily frustrated), demographic characteristics (e.g., young, male, non-white), and criminogenic risk/needs factors (e.g., criminal history, antisocial attitude, limited education). Next, these domains are explored in more detail.

No other single factor has been identified more often in the past research as a predictor of solitary confinement than mental health status. Many studies from different prison systems have found a higher prevalence of severe mental disorders among segregated populations compared to general prison populations (Anderson, Sestoft, Lillebaek, Gabrielsen, Hemmingsen, & Kramp, 2000; Hodgins & Cote, 1991, Lovell, 2008; O’Keefe et al., 2010; Zinger et al., 2001). Segregated offenders often have psychological indices that are elevated over non-segregated offenders, as well as poorer mental health and overall psychological functioning (Zinger et al., 2001). In addition, there have been certain psychiatric diagnoses that have emerged as particularly predictive of placement in solitary confinement, including schizophrenia, bipolar disorder, adjustment disorder and depressive disorder (Anderson et al., 2000; Hodgins & Cote, 1991).

There have also been several personality characteristics identified as predictive of placement in solitary confinement. For example, the findings from several studies suggest many prisoners in solitary confinement are more impulsive, hostile, argumentative, opinionated, and easily frustrated than non-solitary confinement prisoners (Lovell, 2011; Suedfeld et al., 1982). Upon admission to prison, inmates with schizoid, narcissistic, antisocial, aggressive, passive-aggressive, schizotypal, and borderline personality characteristics or delusional thoughts are also thought to have a greater propensity for placement in segregation (O’Keefe et al., 2010).

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The next most cited predictors of placement in solitary confinement include offender demographics and criminogenic risk factors. Specifically, inmates in solitary confinement are often found to be more young, male and non-white than the prison population as a whole (O'Keefe, 2008). Offender risk/needs assessment scores are also reportedly higher in solitary confinement than in the prison population at large (O'Keefe, 2008). For example, segregated inmates are more likely than non-segregated inmates to have more extensive criminal histories, antisocial attitudes, antisocial peers, family dysfunctions, substance abuse issues (particularly related to alcohol), and less educational achievement (O'Keefe, 2008; Motiuk & Blanchette, 2001; Wormith et al., 1988).

In addition to predictors of solitary confinement in general, protective custody inmates have several distinct characteristics that are separate from the punitive segregation inmates. For example, protective custody inmates tend to be first-time offenders, sexual offenders, have poor peer relations, or have been labeled as an informant (Wormith et al., 1988). Protective custody inmates are also twice as likely to have been the victim of aggression while in custody, which explains why they are fearful for their safety and may request the protected status (Wormith et al., 1988).

Taken together, these studies reveal a preliminary profile of a solitary confinement inmate that is quite discernable from that of the typical general population inmate. While there appears to be agreement that solitary confinement disproportionately targets certain types of offenders, the fairness (or constitutionality) of the practice has recently been called into question. Researchers disagree on how unfair they perceive the practice to be, and their position on this continuum is evidenced in the types of recommendations that are made.

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At one extreme, it is argued that elevating the likelihood for placement in solitary confinement based on the characteristics of the offender (particularly for the mentally-ill) is so unfair that the practice itself should be abolished (Anderson, Sestoft, Lillebaek, Gabrielsen, & Hemmingsen, 2003). Others stop short of calling the practice fair, but still advocate for changes, albeit more modest, such as improving assessment protocols (Bottos, 2007; Gendreau & Theriault, 2011; Human Rights Watch, 2000; Lanes, 2011; Wormith et al., 1988) or adding more rehabilitative services (Arrigo & Bullock, 2008; Lovell, 2008; O’Keefe, 2008; Scott & Gendreau, 1969). Interestingly, while some studies avoid the subject of fairness completely and make no policy recommendations, none of the works reviewed advocated for maintaining the current practices. This is perhaps a telling sign that researchers agree that the current solitary confinement practices need to change. Regardless, the previous work has done little to settle the fairness debate and if the current type of research continues it may never do so.

PHYSIOLOGICAL/PSYCHOLOGICAL EFFECTS

There has also been a longstanding debate in the field with respect to whether or not solitary confinement produces any harmful effects (Gendreau & Theriault, 2011). This considerable gap in opinion primarily concerns the effects of stress in solitary confinement. There are two competing perspectives on this topic that have emerged in the existing literature. In the first perspective, researchers describe segregation as being psychologically damaging (Grassian, 1983; Grassian & Friedman, 1986; Haney, 2003; 2008; Jackson, 1983; 2003; Smith, 2006). In contrast, the second perspective assumes solitary confinement has little, if any, negative psychological effects on prisoners (Bonta & Gendreau, 1990; Ecclestone et al. 1974; Gendreau et al., 1968; 1972; Gendreau & Bonta, 1984; Gendreau & Theriault, 2011; O’Keefe, 2008; O’Keefe et al., 2010; Suedfeld et al., 1984; Zinger et al., 2001).

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One viewpoint suggests that segregation is not only one of the most restrictive and stressful settings an offender can be placed in, but also that it is becoming an overused management tool (Arbour, 1996; Human Rights Watch, 2000). This group maintains that solitary confinement violates basic human rights, with conditions that are unduly severe and disproportionate to legitimate security and inmate management objectives (Human Rights Watch, 2000); some even describe it as “cruel and unusual punishment” (Grassian, 1983). Their list of objectionable conditions includes lack of windows, 24-hour lighting, lack of exercise/recreation, restricted interpersonal contact, denial of reading material, and limited therapeutic services. These scholars conclude from the available evidence that solitary confinement is psychologically damaging and causes serious health problems for a number of inmates (Smith, 2006).

The other viewpoint of solitary confinement is that it has little, if any, negative effects on inmates. This group cannot simply be described as pro-solitary confinement. In fact, like their counterparts, these scholars also believe that the practices and conditions of solitary confinement should change, although for different reasons and to a far less degree. As opposed to advocating for change on the grounds of unconstitutionality or the potential medical issues it may raise, this group draws upon the principles of effective intervention (Andrews & Bonta, 2010; Gendreau, 1996) to guide their recommendations for better assessment practices and treatment services.

Reviewing the Literature

The solitary confinement literature can be categorized into three types: experimental studies of volunteer participants, qualitative studies, and quasi-experimental studies. The early empirical studies primarily evaluate physiological indicators and found little, if any, evidence that solitary confinement was damaging to volunteer subjects (Bexton, Heron, & Scott, 1954;

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Ecclestone et al., 1974; Gendreau et al., 1968; 1972; Gendreau, McLean, Parsons, Drake, & Ecclestone, 1970; Zubek, Bayer, Shephard, 1969). The more recent studies use various psychological indicators and support has been found both for, and against, the negative effects of solitary confinement. As a group, the qualitative studies report the most dramatic negative effects (Grassian, 1983; Jackson, 1983; 2003; Haney, 2003; Korn, 1988a, 1988b; Lovell, 2008). However, it should also be noted that these studies are often criticized for being highly subjective and based only on anecdotal evidence. The more methodologically advanced studies indicate both support for, and against the negative effects of solitary confinement (Anderson et al., 2000; Anderson et al., 2003; O'Keefe et al., 2010; Suedfeld et al., 1982; Zinger et al., 2001). Next, the three types of research are reviewed in more detail.

Experimental Studies of Volunteers

Most of the experimental studies in the solitary confinement literature come from field of psychology, under the area of sensory deprivation (Zubek, 1969) or restricted environmental stimulation (Suedfeld, 1980). Most notably, this work has been carried out by a group of Canadian psychologists (Bexton et al., 1954; Ecclestone et al., 1974; Gendreau et al., 1968; 1972; Gendreau et al., 1970; Zubek et al., 1969). Early works in this area used university students as subjects and outcome measures of cognitive functioning (Bexton et al., 1954), behavioral indicators and EEG changes (Zubek et al., 1969). Later, the studies used inmates and examined more directly the effect of sensory deprivation – through solitary confinement – on many types of outcomes; including stimulation seeking (Gendreau et al., 1968), learning ability (Gendreau et al. 1970), arousal patterns, via EEG frequency and visual evoked potentials (Gendreau et al., 1972), and stress levels, via plasma cortisol levels (Ecclestone et al., 1974).

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One of the early sensory deprivation studies reported subjects suffered from dramatic cognitive deterioration and perceptual impairment (Bexton et al., 1954). However, these findings were never replicated. The rest of these studies found that there is virtually no change in the stress levels or abilities of segregated subjects after their release from sensory deprivation (or solitary confinement) status. The conclusion from this work is that solitary confinement may be, at most, a stressful experience only in its early stages.

The early experimental studies are of course not without criticisms. There is debate over the appropriateness of the type of subjects used in these sensory deprivation studies. Specifically, the use of university students has been argued to be an inappropriate sample because the findings will not generalize to the population of interest – prisoners (Suedfeld et al., 1982). University students in general, exhibit higher intelligence levels, stable personality patterns, good adjustment to situations, which may not compare to the segregated prison population (Zinger et al., 2001).

Most of the experimental studies also use volunteers; that is, those that have agreed to be segregated for a certain period of time. Some authors refuse to acknowledge the findings from volunteer studies (Jackson, 1983). The argument is that volunteers may have coping mechanisms or other personal characteristics that allow them to manage themselves in solitary confinement settings better than actual segregated offenders. This, therefore, questions whether the results from the volunteer studies should be generalized to other segregated offenders that may lack the appropriate coping abilities or mental composition.

Volunteers also maintain the right to end their participation in the study at any time, which leads to another well-established problem in research, namely attrition. Attrition is especially problematic in the study of solitary confinement because volunteers who have

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difficulty coping to segregation may choose to end their participation early (Zinger et al., 2001). They may also be the individuals that are the most affected by the experience.

The conditions of many of the early sensory deprivation studies have also been distinctively more depriving of sensory stimulation than most of the solitary confinement settings in the typical North American prisons (Suedfeld et al., 1982). For example, in one sensory deprivation study, subjects wore gloves, cardboard cuffs, and translucent goggles, and spent 24 hours of the day lying on a bed in a lighted room with only time out for eating and going to the bathroom (Bexton et al., 1954). It has been argued that inmate solitary confinement units are not nearly as restrictive and thus the generalizability of the findings from this type of study is questionable (Suedfeld et al., 1982). However, others contend that since the conditions of the sensory deprivation studies are often more extreme than those of the typical solitary confinement units, and there has been little support found from the studies that sensory deprivation is psychologically damaging, the conclusions from these studies should be considered relevant (Gendreau & Bonta; 1984).

Finally, some of the sensory deprivation experimenters have screened out potential subjects of interest. For example, the Gendreau et al. (1972) and Ecclestone et al. (1974) studies rejected those prisoners who were medically unfit or had a previous record of psychiatric or behavior problems in prison. As such, the findings from these studies may be difficult to apply to the population of solitary confinement prisoners (Zinger et al., 2001).

Qualitative Studies

Another group of scholars choose to study the effects of solitary confinement by conducting one-on-one interviews with offenders in solitary confinement (Grassian, 1983; Jackson, 1983; 2003; Haney, 2003; Korn, 1988a; 1988b; Lovell, 2008). These qualitative studies

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describe powerful excerpts from interviews with segregated prisoners and mental health professionals that work in solitary confinement settings. These scholars typically incorporate case law and human rights litigation into their work as well (Jackson, 1983; 2003; Haney, 2003). The general conclusion from the qualitative reviews is that the conditions of solitary confinement are physically and psychologically damaging.

While most of this qualitative work points to the damaging effect of solitary confinement, some question the generalizability of these case studies (Bonta & Gendreau, 1984; Gendreau & Theriault, 2011; Suedfeld et al., 1982; Zinger et al., 2001). For example, it is uncommon for qualitative studies to report any information of the prevalence of symptoms prior to placement in solitary confinement. By the nature of the methodology (i.e., post-test only), it is often unclear whether the observed behaviors of these segregated prisoners are attributable to the conditions of solitary confinement, or whether they are due to the preexisting conditions of the offenders prior to segregation. Likewise, some dismiss the findings from qualitative studies because they are derived from such weakly designed quasi-experiments (Gendreau & Theriault, 2011).

Qualitative studies have also been criticized for their use of open-ended interviews and active encouragement of disclosure (Gendreau & Theriault, 2011). These tactics have been cited in the sensory deprivation literature for potentially influencing offender responses (Orne & Scheibe, 1964). Selection bias is also reported as a problem with the qualitative research. For example, Grassian's (1983) study included inmates that were actively involved in a class action lawsuit against the state. It has been argued that this was highly likely to influence their responses to questioning (Gendreau & Theriault, 2011).

Finally, some authors have been criticized for inappropriately drawing parallels from persons experiencing severe abuses to those in solitary confinement (Suedfeld et al., 1982). For

example, some qualitative studies have compared segregation with the experience of being a prisoner of war (Haney, 2003). It has been argued, rather persuasively, that isolation in a war camp (which includes acts of torture, withholding of food, clothing and medical care) is simply not comparable to the conditions of solitary confinement in North American prisons and thus the findings are not generalizable (Suedfeld et al., 1982).

Quasi-Experimental Studies

The more recent and methodologically advanced studies (i.e., including non-volunteers, longitudinal assessments, repeated measure comparison group designs, standardized assessments) primarily indicate that there are no long-term negative effects from solitary confinement (O'Keefe et al., 2010; Suedfeld et al., 1982; Zinger et al., 2001). However, other methodologically rigorous studies suggest that there are some negative effects (Anderson et al., 2000; Anderson et al., 2003). While this group of studies has not been able to conclusively settle the debate, they have been able to advance knowledge through incremental improvements in the methodological techniques employed. In this section, these advancements are discussed by describing key solitary confinement studies in more detail.

In 1982, Suedfeld et al. examined the effects of solitary confinement on inmates in prison, while simultaneously addressing some of the methodological shortcomings noted in the prior research. Among other improvements, this study involved a larger sample size ($n = 115$), included both male and female inmates, used objective psychological tests, and was conducted in multiple sites (five U.S. and Canadian prisons). This study also employed a control group design. Specifically, the inmates with solitary confinement experience served as the experimental group ($n = 83$), while the inmates with no solitary confinement experience served as the control group ($n = 32$). While this research found no consistent significant differences

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between the two groups, they did note that increased time in segregation was associated with inhibition, anxiety, lack of self-insight, submissiveness, depression, and hostility. The authors concluded that solitary confinement, is not overwhelmingly aversive, stressful, or damaging to inmates (Suedfeld et al., 1982).

In another study, Zinger et al. (2001) conducted a longitudinal assessment with a repeated measures comparison group design of non-volunteer inmates from three prisons for a fixed period of time. Study participants included Canadian prisoners who had either been (a) placed in administrative segregation for 60 days (i.e., the experimental group), or (b) randomly selected from the general prison population of inmates that have been in general population for 60 days (i.e., the control group). All participants agreed to take part in a structured interview and complete a series of written psychological tests. The same procedure took place 30 and 60 days later. While the sample began with 136 completed inmate assessments (83 segregated and 53 non-segregated participants), it ultimately suffered from a 54% attrition rate. Regardless, Zinger et al. (2001) found that over the 60-day period examined, there were no significant mental health and psychological functioning deterioration in segregated prisoners.

In a series of publications, Anderson and colleagues (2000; 2003) used longitudinal analysis to compare the prevalence and incidence of psychiatric disorders and psychopathy between a random sample of solitary confinement ($n = 133$) and non-solitary confinement prisoners ($n = 112$) in Denmark. Participants in both groups were examined by one of two psychiatrists in five waves over a period of four months. Participants also completed a number of psychological assessments and questionnaires during each interview session. While the sample began with 228 participants, it also suffered from a considerable rate of attrition (52% of the original sample remained at the 3 week follow-up, 17% at 2 months, 6% at 3 months, and 2%

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at 4 months). Anderson et al. (2003) found the psychiatric indicators of the inmates in the solitary confinement setting remained consistent, while the symptom scores of the inmates in the non-solitary confinement setting gradually decreased over time. Interestingly, when inmates transferred from solitary confinement to non-solitary confinement, a reduction in symptomology was also found. According to Anderson et al. (2000), there is a higher risk of developing a psychiatric disorder in solitary confinement than in non-solitary confinement. Anderson et al. (2003) conclude the solitary confinement conditions are distressing, but acknowledge that the effects are probably only temporary.

Finally, in a one-year longitudinal study in Colorado, O'Keefe et al. (2010) provided one of the most methodological rigorous tests of the psychological effects of solitary confinement to date. Their sample included only prisoners with histories of disruptive institutional behavior ($n = 302$). O'Keefe et al. (2010) further separated the offenders based on the presence or absence of mental illness (defined as those with an Axis I or some Axis II diagnoses). There were five testing sessions at 3-month intervals: baseline, 3 months, 6 months, 9 months, and 12 months. Twelve self-report assessment tools were administered during the testing sessions. There was a 26% attrition rate for offenders that completed all testing sessions. It should be noted that not all offenders in the solitary confinement group remained segregated for the entire period of participation in the study. Conversely, some inmates in the general population groups spent some time during their study participation in segregation.

There were five key findings of the O'Keefe et al. (2010) study. First, solitary confinement inmates demonstrated elevations on psychological and cognitive measures; however, there were similar elevations found in the comparison groups. This suggests that the psychological disturbance is not unique to the solitary confinement environment, but may exist

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in other prison settings as well. Second, in examining change patterns over time, all study groups improved on the psychological measures, with the bulk of the improvements occurring within the first and second testing periods. These results conflicted with the Anderson et al. (2000, 2003) studies, which found inmates remained stable on psychiatric indices while in solitary confinement. Third, the patterns experienced by the mental health groups were similar to one another, but were elevated when compared to the non-mentally ill groups. Interestingly, on average the segregated non-mentally ill group did not indicate change on psychological or cognitive indicators, while the segregated mentally ill group indicated improvements over time. This finding supports the psychiatric literature that suggests some mentally ill inmates might react positively to solitary confinement because of their desire for less stimulation (Grassian & Friedman, 1986). Finally, the solitary confinement group did not develop a wide array of psychological symptoms. The conclusion from O'Keefe et al. is that solitary confinement had little effect on the psychological well-being of inmates.

GENERAL FINDINGS AND DIRECTIONS FOR FUTURE RESEARCH

This review of the solitary confinement literature revealed two things. First, in practice there appears to be disparity as to which inmates are most often placed in solitary confinement. Specifically, the solitary confinement population is overrepresented by younger, male inmates with severe mental illness and more extensive criminal histories. The debate over the fairness (or constitutionality) of this practice remains unsettled, and this may continue for quite some time, so long as the argument is based on philosophical, rather than empirical, grounds.

While an assessment system has not yet been created to determine which offenders are at-risk for placement in solitary confinement, most researchers advocate for the development of such a tool. It has been argued by both sides that development of such an assessment system

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could lead to better screening protocols and more effective offender management strategies (Bottos, 2007; Gendreau & Theriault, 2011; Haney, 2003). Further research in this area is needed before any conclusions can be drawn.

Second, the results from the physiological and psychological effects studies are not conclusive. However, there has emerged a debate in the field regarding the interpretation of the available evidence. The experimental studies suggest that solitary confinement is stressful, at most, only during the early stages, but this work is also highly criticized for using volunteers and laboratory settings (Suedfeld et al., 1982). The qualitative studies suggest that the conditions of solitary confinement are physically and psychologically damaging, but have often been dismissed because of their weak methodological designs (Gendreau & Theriault, 2011). The quasi-experimental studies generally indicate no serious long-term effects, but some of these studies also report evidence of negative effects.

The research that has been conducted to date has suffered from many methodological weaknesses, including small sample sizes, use of volunteers, taken place in laboratory settings, use of open-ended interviews, no use of comparison group, use of non-standardized assessments, and high attrition rates. Therefore, the generalizability of the findings from these studies is limited. In this absence of strong empirical support, much of the dispute over the effect of solitary confinement is based upon extrapolations and generalizations. The lack of replication in solitary confinement research indicates there is a need to hesitate before sound conclusions can be reached and recommendations for useful policies should be made. In order to better understand the impact of solitary confinement, the literature should first be summarized by a meta-analysis. A meta-analysis will help researchers arrive at more accurate and credible conclusions than those presented in any one of the primary studies (Hunt, 1997).

CONCLUSION

While the solitary confinement debate remains unresolved, correctional administrators must make important policy decisions based on the limited and often conflicting information available. Therefore, the biases and shortcomings that exist in the current research might have unintended consequences in the field. In order to improve the usefulness of solitary confinement research, it is necessary to expand the scope of future investigations. Prior studies have been too narrowly focused on whether solitary confinement is used appropriately or has any adverse effects. In order to advance the study of solitary confinement, future investigations should also assess the underlying theory that solitary confinement enhances safety and/or has a deterrent effect. The addition of this type of research will be a great contribution to the field.

Solitary confinement may be disproportionately used with certain groups of offenders, but the determination of the fairness of this practice should be reserved until it can be discovered what effect such placements have on the goals of solitary confinement (i.e., increased safety and security). If the predictors of solitary confinement are similar to the predictors of institutional misbehavior – both as the perpetrator and victim – perhaps the practice is not discriminatory or unfair. For example, if younger, males, with extensive criminal histories commit a disproportionate amount of institutional misbehavior and are subsequently sent to solitary confinement as a result, it does not necessarily make the practice unfair. Because theoretically, placing the offenders that are high risk for perpetration (or victimization) in solitary confinement may reduce the number of misconducts committed within the institution.

A better way to evaluate the fairness of solitary confinement is to examine the impact that such placements have on subsequent institutional and post-release behavior. That is, if solitary confinement reduces subsequent institutional misconduct (or criminal behavior), it seems

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reasonable to conclude that such placement may not only be fair, but also justifiable. However, if solitary confinement does not reduce subsequent institutional misconduct (or criminal behavior), then the fairness and justification for such a practice is seriously questionable. Of course this is an empirical question that could be resolved rather succinctly with an appropriate study.

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