

# The Effects of Restrictive Housing on Recidivism

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## **Research Summary**

The isolation of certain inmates for the protection of others or themselves is sometimes required for the sake of safety and institutional order. However, many observers have argued that restrictive housing is a form of torture, and may leave inmates at a greater risk of reoffending in the future. This study examined (a) the extent to which a cohort of released state prisoners were held in restrictive housing during their confinements, (b) whether or not they were released to the community directly from restrictive housing, and (c) whether or not these factors significantly impacted the likelihood of three types of recidivism. The results revealed that time spent in restrictive housing increased the risk of supervision revocations up to two years after release, but did not significantly increase the likelihood of rearrest or reconviction. Thus, rule-breaking behaviors appear to continue into the community, but not necessarily continued criminal offending.

**Key Words:** corrections, recidivism, restrictive housing, inmate misconduct, survival analysis

## **Introduction**

The assassination of Tom Clements, the executive director of the Colorado Department of Corrections, by a recently released prisoner in 2013 kicked off renewed scrutiny of the use of solitary confinement by prisons and jails (Goode, 2014). Evan Ebel, the recently released prisoner, had just completed a seven year sentence for armed robbery, and he spent most of those years in solitary confinement, also known as segregation or restrictive housing.

Restrictive housing (RH) is a confinement designation whereby inmates are held in isolation, and their activities are strictly limited and closely monitored. Generally, inmates in RH spend 23 hours or more per day alone in a cell that is no larger than a standard parking space (Baumgartel, Guilmette, Kalb, Li, Nuni, Porter, & Resnik, 2015; Foster, 2016; Shames, Wilcox, & Subramanian, 2015). These inmates may be permitted to leave their cells for a few trips to shower facilities per week, or to an enclosed recreational space. Just as contacts with other inmates and prison staff are limited for inmates in RH, so too is access to the outside world. Inmates in RH are usually allowed to receive and send letters, and to make a few phone calls per week. However, contact visits with outside visitors are usually not allowed. Any in-person visits from outside visitors are typically limited to video conferencing systems within the prison, or these visits may take place through a glass partition.

Notably, Ebel was released from prison to the outside world directly from a long-term stint in RH. Thus, the current debate over RH has been focused on the length of RH sentences and the practice of releasing inmates from confinement directly from RH. In recent years, the media, criminal justice advocates, some correctional administrators, and even then-President Barack Obama have argued that RH is not only inhumane, but may also leave prisoners more

prone to commit new crimes (e.g., Frost & Monteiro, 2016; Goode, 2015; Shames et al., 2015; Shapiro, 2015).

Restrictive housing is of course not a new practice in American corrections. One of the earliest prisons in the United States, Eastern State Penitentiary in Pennsylvania, relied almost exclusively on practices that resemble modern RH to house all inmates in its first decades of operation (Dolan, 2007; Rothman, 1971). Inspired by the Quaker tradition of introspection and quiet reflection, the designers of Eastern State thought that isolation would result in behavioral reformations among prisoners. Faced with overcrowding and increasing evidence of mental deterioration among inmates left in prolonged isolation, Eastern State slowly phased out most of its isolation practices over its last century of operation (Dolan, 2007).

Restrictive housing has remained a fixture in American prisons and jails since that point, usually in the form of a cell block or prison wing reserved for inmates perceived as a threat to themselves, other inmates, or prison staff, or inmates requiring closer supervision than the rest of the inmate population. All prison systems in the United States have a mechanism for separating some prisoners from the rest of the prison population (Baumgartel et al., 2015). The 1980s ushered in a rebirth of prisons that hold all prisoners in isolation (à la Eastern State) with the creation of super-maximum, or “supermax,” prisons (Mears, 2006). Currently, a majority of states and the Federal Bureau of Prisons (BOP) operate at least one supermax prison, although the definition of “supermax” varies across jurisdictions and states. For example, the supermax facility may be a standalone prison or a separate unit within a prison, and the hours per day that inmates are housed in isolation varies across supermax facilities.

Several research studies that span multiple decades have concluded that prolonged isolation in prison is associated with a variety of adverse mental health outcomes, ranging from

mild to severe mood disorders to physical manifestations of poor mental health, such as increased blood pressure and suicidal or self-harming behaviors (e.g., Haney, 2003; Jackson, 1983; Kurki & Morris, 2001; Rundle, 1973; Pizarro & Stenius, 2004; Scott, 1969; Slater, 1986). Other researchers have argued that, when used in moderation, RH has a negligible effect on mental health (e.g., Bonta & Gendreau, 1995; Ecclestone, Gendreau, & Knox, 1974; Gendreau & Bonta, 1984; O’Keefe, 2008; O’Keefe et. al., 2010; Suedfeld, 1984; Zinger, Wichmann, & Andrews, 2001).

Few existing studies have examined the effect of RH on recidivism, but of the studies that have, they have focused on prisoners released from supermax prisons (Lovell, Johnson, & Cain, 2007; Mears & Bales, 2009). Lovell et al. (2007) compared the recidivism rates of released male inmates in Washington State who spent several weeks in supermax facilities to a matched set of released inmates who did not spend any time in supermax facilities. Whether or not an inmate had been confined in a supermax facility did not significantly affect the risk of felony reconviction within three years of release. However, inmates released directly to the outside from a supermax unit committed new felonies at a higher and faster rate compared to the matched sample of inmates.

Using a similar study design to that of Lovell et al. (2007), Mears and Bales (2009) found that Florida inmates who spent time in supermax facilities were more likely to be convicted of a new violent offense within three years of release compared to a matched sample of non-supermax inmates. Rates of new property and drug offenses within three years of release were similar between inmates who did and did not spend time in supermax facilities once the two types of inmates were matched and basic background and demographic differences were accounted for. Mears and Bales (2009) also found that being released directly from a supermax

facility to the outside world did not significantly affect the risk of recidivism. Both Lovell et al. (2007) and Bales and Mears (2009) found that total time spent in a supermax facility did not significantly impact recidivism.

Thus, the results from the above two studies are somewhat mixed. Having spent time in a supermax facility versus not having spent time in a supermax facility did not increase the risk of recidivism for Washington inmates, but it did for Florida inmates, and only for violent offenses. Being released directly to the community from a supermax facility versus spending some time in the general population between RH and release to the community increased the risk of recidivism for Washington inmates, but not for Florida inmates.

The present study once again examined whether or not spending time in RH significantly affects the risk of recidivism, but employed broader measures of RH and recidivism than the Washington (Lovell et al., 2007) and Florida (Bales & Mears, 2009) studies. Rather than looking only at confinement in stand-alone supermax facilities, this research included confinement in RH units within Minnesota's entire prison system, which includes one supermax facility and nine other facilities of varying security levels. The present study also looked at the total proportion of an inmate's sentence spent in RH (including a range of relatively short and long RH confinement times), rather than including only RH stays that lasted 90 days or longer, as the Florida and Washington studies did.

As for recidivism, Lovell et al. (2007) and Bales and Mears (2009) based their outcome measures on one type of recidivism (felony reconviction), while the present study used three different forms of recidivism: supervision revocations (also known as technical violations), new arrests, and new felony convictions within three years of release. Given that many returns to prison can come as the result of rule-breaking, and not law-breaking behaviors, and that many

alleged offenses may never go to trial, it is important to include a range of recidivism types. Indeed, other studies that have employed multiple recidivism outcomes have found varying main effects depending on which recidivism measure was used (e.g., Clark, 2015; Clark, 2016; Duwe, 2015a).

In sum, the present examined a large cohort of released prisoners, and the extent to which they were confined in RH and whether or not they were released to the outside directly from RH. The present study estimated the effect of time spent in RH and release directly from RH on three different measures of recidivism up to two years after release from prison, while controlling for several other factors that may confound the relationship between RH and recidivism.

### **Modern Use of Restrictive Housing**

Unlike the progressive ideals of Eastern State, the modern goals of RH are more punitive and utilitarian in nature. There are generally three reasons why prison administrators place inmates in some form of isolation or RH (Kapoor & Trestman, 2016). The first is to punish an inmate as a result of a formal misconduct proceeding for violation of facility rules. These rule infractions range from minor (e.g., failure to obey an order from a corrections officer) to grievous (e.g., assault of another inmate or staff member). In addition to punishing a specific inmate and deterring future bad behaviors, this form of sanction has the added benefit of deterring other would-be institutionalized offenders from engaging in misconduct.

The second reason modern RH is imposed is to incapacitate an inmate who poses a continuing threat to facility safety and/or order, even if that inmate has not been charged or convicted in a formal misconduct proceeding. For example, known gang members or affiliates may be placed in isolation from the general population based on an assessment of risk factors or

information by prison administrators (Pyrooz, 2016). The next common reason for placement in RH is to protect that inmate from themselves or others. Inmates that require protection may include suicidal inmates that must be closely monitored, or vulnerable inmates that may be targets for violence by other inmates (e.g., gender non-conforming inmates, homosexual inmates, geriatric inmates, inmates convicted of sexual offenses, high-profile inmates). The last common reason for placement in RH is to separate incoming or outgoing inmates as they are assessed for intake or prepared for transfer into other prisons. In the present study, the first category of RH placements is referred to as disciplinary RH, and the last three categories are referred to as administrative RH.

### ***The Prevalence of Restrictive Housing***

Based on the most recent data from the Bureau of Justice Statistics' (BJS) National Inmate Survey (NIS), 4.4 percent of federal and state inmates were confined in some form of restrictive housing on an average day over 2011 to 2012 (Beck, 2015). This figure is an approximate estimate given that different jurisdictions may have unique definitions of what constitutes RH. That is, the same set of highly restrictive confinement conditions may be counted as RH in one jurisdiction, but not in another. Moreover, some jurisdictions lack centralized record-keeping systems that can accurately count instances of RH in their prisons and jails.

Again referencing the BJS's most recent NIS, a majority (80 percent) of state and federal inmates had not spent any time in RH within the previous year leading up to the survey (Beck, 2015). However, of that approximately 20 percent of inmates who had spent some time in RH, about half had spent 30 or more days in RH. Thus, most inmates will avoid RH, but of the inmates who do end up in RH, many will stay for weeks at a time. In another study, a sample of 24 prison systems reported that most continuous stays in RH are less than 90 days, but some



stays in RH may last for more than three years (Baumgartel et al., 2015). Texas prisons had the highest percentage of inmates spending three or more years continuously in some form of RH (44 percent). Lengths of stay in RH may depend on the severity of the misconduct offense in the case of disciplinary RH, or the length may be at the discretion of prison administrators in the case of administrative RH.

Measuring the number of inmates released directly from isolation to the outside is even more difficult than measuring the prevalence of RH given that the majority of states and the federal Bureau of Prisons simply do not count how often that happens. Based on data from just 24 states (including Arizona, Minnesota, and Pennsylvania, to name a few), an investigation by National Public Radio and the Marshall Project found that 10,000 state inmates were released to the outside directly from RH in 2014 (Shapiro, 2015; Thompson, 2015). From state-to-state, that annual figure can range from 41 prisoners in Colorado—a state which banned the practice of direct releases from RH in 2014—to nearly 2,600 prisoners in Florida.

### **The Present Study**

The present study examines the effect of time spent in RH and release directly from RH on recidivism. Several scholarly and mainstream observers have concluded that RH increases the likelihood of recidivism (e.g., Shames et al., 2015; Shapiro, 2015; Thompson, 2015), but why? There are three commonly cited reasons. The first reason is RH's relationship with mental health. Determining whether or not RH has short- and/or long-term impacts on mental health is not an objective of this study. However, given the extant research, it seems obvious that there is a relationship between RH and poor mental health. It has been estimated that more than half of all state prisoners have a mental health problem (Kim, Becker-Cohen, and Serakos, 2015), and mental illnesses are even more common among inmates in RH than in the general prison

population (Beck, 2015; Labrecque, 2015; O’Keefe, 2007). Moreover, untreated mental health conditions can disrupt the prisoner reentry process, presumably leading to increased risk of recidivism (Mallik-Kane & Visher, 2008). Thus, RH may increase the risk of recidivism given its close relationship with poor mental health.

It is worth noting, however, that mental illness has been found to be, at best, a weak predictor of recidivism (Eno Louden & Skeem, 2011). Under the risk-needs-responsivity (RNR) model, which is the prevailing paradigm within American corrections today, there are eight central risk factors that increase the likelihood of recidivism (Andrews, Bonta & Wormith, 2006). Of these, the “big four” (antisocial history, antisocial personality, antisocial cognition, and antisocial peers) are considered especially influential for reoffending. Even though major mental illness is a risk factor for recidivism, Andrews et al. (2006) emphasize it has only a modest, indirect impact. Instead, they argue, its association with recidivism likely reflects the impact of substance abuse (one of the “central eight” risk factors) along with antisocial cognition and antisocial personality pattern (two of the “big four”). Despite the limited impact mental illness may have on committing a new criminal offense, the findings from several studies suggest it significantly increases the likelihood of a parole revocation due to a “technical violation” (e.g., Eno Louden & Skeem, 2011; Porporino & Motiuk, 1995). Thus, released prisoners who suffer from mental illness may have difficulties complying with the conditions of release (increasing the risk of a technical violation), but they are not necessarily committing new criminal offenses (given the weak association between mental illness and other forms of recidivism, including rearrest and reconviction).

The second reason time spent in RH may impact recidivism is the relationship between RH and past offending behaviors. That is, in order to spend time in disciplinary RH, inmates

must have committed a rule infraction that has been reviewed and substantiated during an official misconduct proceeding. Further, recent research has found that a lengthier prior criminal record is associated with an increased risk of placement in RH (Cochran, Toman, Mears, & Bales, 2017). This last finding may be due in part to the fact that RH is commonly used across prison systems in the United States to combat gang activity in prisons (Pyrooz, 2016). Gang activity can lead to both disciplinary RH, if that activity involves violations of prison conduct rules, and it can lead to administrative RH, if known or suspected gang members are perceived to be a threat to overall prison order, safety, and security. While some inmates may end up in RH for reasons that are completely unrelated to behavioral issues or security threats (e.g., gender nonconformity, advanced age), it appears that time spent in RH may signal chronic behavioral problems that can lead to an increased risk of recidivism for some inmates.

The last reason for why RH may increase the risk of recidivism is the lack of evidence-based programming available in RH. Evidence-based programs include all interventions that have an empirical impact on lowered recidivism risk. Participation in as little as one evidence-based intervention can significantly reduce the risk of recidivism (Duwe & Clark, 2017). Because inmates in RH are not able to leave their cells or interact with other inmates, RH precludes inmates from many programs. Enrollment in a program may also require that an inmate have no recent misconduct infractions. Without programs, inmates are simply held in detention, or “warehoused,” which can significantly increase their risk of recidivism. Some prisons across the country have started to implement “step-down” programs for inmates in RH, in an attempt to ease these inmates back into the general population with a mix of incentives for good behavior and behavioral treatment (Chammah, 2016). However, these programs are not available everywhere and they are too new to have been evaluated for effectiveness.

The expectation of this research is that the amount of time spent in RH and being released to the community directly from RH increases the likelihood of recidivism, but only insofar as the types of inmates who typically end up in RH are already at an increased risk of recidivism. Thus, controlling for mental illness, prior criminal history, institutional misconduct, and participation in effective programming, among multiple other pertinent control variables, should render the relationship between RH and recidivism non-significant.

### **Data and Method**

Data for this study were derived from all 7,639 prisoners released from Minnesota state adult correctional facilities in calendar year 2014. Some individuals have multiple stints in prison per year and may be released from prison more than once in a year. This sample included only each prisoner's first release within 2014. Because prisoners who are committed to prison for only a very short period of time may spend much of that time in some form of isolation as they are being processed for intake, this sample was further limited to only those prisoners who spent 30 days or more in confinement. Based on these criteria, 1,137 cases were eliminated from the original sample, leaving a total final sample of 6,502 released prisoners.

#### ***Dependent Variables***

Recidivism within one to two years after release from prison was the outcome measure in this study, and it was measured in three different ways. These measures included: (1) a return to prison for a post-release supervision violation (supervision revocation), (2) a new arrest, and (3) a new felony-level conviction. Supervision revocations were tracked by the Minnesota Department of Corrections (MnDOC) using their Correctional Operations Management System (COMS) database. COMS is MnDOC's primary database used to track all offender intakes and releases, basic information about inmates, as well as many inmate activities that take place while

in confinement. New arrests and convictions were obtained from the Minnesota Bureau of Criminal Apprehension (BCA), Minnesota's statewide law enforcement agency.

These three measures range from looser to more stringent measures of recidivism. On the looser end of the spectrum, supervision revocations may come as a result of any behavior that violates the conditions of supervised release, and these violations do not always constitute violations of the law (e.g., failure to meet with supervision officer, failure to maintain employment, breaking curfew). That is, supervision revocations often reflect rule-breaking, and not law-breaking, behaviors. In the middle of the spectrum, arrests come as a result of suspected law-violating behaviors, although actual guilt (or even charges) have yet to be determined. On the more stringent end of the spectrum, new felony-level convictions typically come as a result of law-violating behaviors, and only after guilt has been established beyond a reasonable doubt. Thirty-seven percent of the released prisoners in this sample were revoked from supervision up to two years after release, 48 percent were re-arrested, and 20 percent received a new felony-level conviction.

### ***Independent Variables***

All of the independent variables used in this research were derived from the MnDOC's COMS database. The two central independent variables in this study are measures of exposure to RH. The first measure represents the proportion of the inmate's confinement time spent in RH. This measure was created by dividing the total number of days spent in disciplinary RH by the total number of days spent in confinement. The second measure is a binary indicator of whether or not the inmate was released from prison directly from RH. This measure is an indicator of whether or not the inmate was housed in an RH unit on the same day that he or she was released from prison. This study found that, on average, inmates spent five percent of their total

confinement times in RH for discipline convictions, and seven percent of the inmates in our sample were released from prison directly from an RH unit. It is worth noting that a majority of the sample (65 percent) did not spend any time in RH, which is consistent with prior research that has found that most prisoners avoid RH while in prison (Beck, 2015). Looking only at the 35 percent of inmates who spent at least one day in RH, they spent an average of 15 percent of their confinement times in RH.

Besides exposure to RH, several other factors that have previously been demonstrated to impact adult recidivism were controlled for, including gender, age, race, and education level (e.g., Duwe, 2013; Duwe & Clark, 2014; Gendreau, Little, & Goggin, 1996). These measures included the following:

*Gender:* gender was measured using a binary indicator of whether inmate was male (89 percent); females served as the reference category (11 percent).

*Age at release:* age was a continuous variable measured in years; the inmates in this study were an average of 34.8 years of age ( $s = 10.31$ ,  $r = 17$  to  $83$ ).

*Race/Ethnicity:* race and ethnicity were measured using four binary indicators of whether the inmate was African American (30 percent), American Indian (11 percent), white-Hispanic (5 percent), or Asian (2 percent); white/non-Hispanic inmates (52 percent) served as the reference category.

*GED/High School Diploma:* education level was measured using a binary indicator of whether the inmate had at least a GED or high school diploma upon release from prison (78 percent); inmates without a GED or high school diploma served as the reference category (22 percent)

*New commitment:* this measure was a binary indicator of whether the inmate was admitted to prison for a new offense conviction (78 percent); inmates admitted to prison for a supervised release violation served as the reference category (22 percent)

*Total Length of Stay:* the inmate's total length of incarceration prior to release was a continuous variable measured in months; the inmates included in this study had spent an average of 19.73 months in prison prior to release ( $s = 30.72$ ,  $r = 1$  to 436).

*Type of Offense:* the inmate's type of offense was measured using five binary indicators of whether the inmate's most serious index offense was a drug (24 percent), criminal sexual conduct (CSC, 10 percent), property (22 percent), felony driving while intoxicated (DWI, 8 percent), or other type (7 percent) of offense; person (violent) offenses served as the reference category (29 percent).

*Post-Release Supervision:* the type of supervision the inmate was subjected to following release from prison was measured using two binary indicators of whether the inmate was under intensive supervised release (ISR, 24 percent) or was discharged from prison without supervision (8 percent); standard supervision served as the reference category (68 percent).

Additionally, because RH may impact recidivism based on its relationship with mental health, prior behavioral dispositions, and lack of participation in effective prison programs, multiple measures that control for these factors were controlled for in the analyses. First, mental health was controlled for by including a binary indicator of whether the inmate had a documented mental health condition. About 27 percent of the sample had at least one documented mental health issue, and inmates without at least one documented mental health condition served as the reference category (73 percent).

Next, to account for prior rule-breaking behaviors, this study controlled for prior criminal history, the total number of discipline convictions the inmate received while incarcerated, and indicators of whether or not the inmate is a member of or affiliated with a security threat group (STG, commonly referred to as a "gang"). The inmate's prior criminal history was measured using a factor score comprised of the inmate's number of prior commitments to prison for new offenses and the number of prior admissions to prison for supervised release violations (eigen

value = 1.66, factor loadings = 0.912). The inmate's number of discipline convictions while in prison was measured using a count variable, which had an average of 1.84 ( $s = 5.36$ ,  $r = 0$  to 124). STG indicators were measured using a count variable, which had an average of 0.70 ( $s = 1.48$ ,  $r = 0$  to 10). There are 10 STG indicators that include, for example, the inmate having gang-affiliated tattoos, known associations with other gang-affiliated inmates, and self-identified gang affiliations.

To control for access to programming, the analyses included a measure of the number of effective interventions in which the inmate participated while incarcerated, including programs that the inmate did not complete or graduate from. Interventions found to be effective in reducing recidivism for Minnesota prisoners include a correctional boot camp (Duwe & Kerschner, 2008), prison-based sex offender treatment (Duwe & Goldman, 2008), chemical dependency treatment (Duwe, 2010), a faith-based program (Duwe & King, 2013), prison visitation (Duwe & Clark, 2013), employment programming (Duwe, 2015b); educational programming (Duwe & Clark, 2014); cognitive-behavioral therapy (Duwe & Clark, 2015), and work release (Duwe, 2015a). The inmates in this sample participated in an average of 1.18 effective interventions ( $s = 1.29$ ,  $r = 0$  to 9).

Table 1 displays the means and percentages for all of the control variables for the (1) entire sample, (2) released inmates who spent one day or more in RH, and (3) released inmates who spent no time in RH, as well as the  $t$ -statistic that indicates whether any differences between the latter two groups are statistically significant. As the results in the table indicate, there were many significant differences between inmates who spent time in RH and inmates who did not. Among inmates who spent any time in RH, a significantly larger percentage were male compared to inmates who spent no time in RH (91 percent and 88 percent, respectively) and they



**Table 1. Comparison of means between inmates who spent any time in restrictive housing (RH) and inmates who spent no time in restrictive housing (No RH)**

<b>Variable</b>	<b>Entire Sample Mean or %</b>	<b>RH Mean or %</b>	<b>No RH Mean or %</b>	<b>t-statistic</b>
Gender (male)	89%	91%	88%	3.526 ***
Age at Release	34.80	33.02	35.43	-9.943 ***
<i>Race/Ethnicity</i>				
White non-Hispanic	52%	42%	56%	-11.052 ***
African American	30%	36%	27%	7.261 ***
American Indian	11%	14%	9%	5.797 ***
White-Hispanic	5%	7%	4%	3.946 ***
Asian	2%	2%	3%	-3.171 **
GED/High School Diploma	78%	76%	80%	-3.464 **
<i>Type of Prison Admission</i>				
New commitment	78%	85%	74%	10.419 ***
Release Return	22%	15%	26%	
Total Length of Stay	19.73	31.30	13.60	22.988 ***
<i>Type of Offense</i>				
Drugs	24%	15%	28%	-11.894 ***
Property	22%	22%	21%	0.882
CSC	10%	12%	9%	3.933 ***
DWI	8%	6%	10%	-5.435 ***
Other	7%	6%	7%	-1.977 *
<i>Post-Release Supervision</i>				
Intensive Supervised Release (ISR)	24%	28%	22%	5.689 ***
Discharge	8%	8%	8%	-0.580
Mental Health Condition	27%	34%	24%	8.478 ***
Prior Criminal History	0.00	-0.02	0.01	-0.969
Discipline Convictions	1.84	4.98	0.17	38.014 ***
Security Threat Group Indicators	0.70	1.06	0.51	14.680 ***
Effective Interventions	1.18	1.35	1.20	4.513 ***

Note: N = 6,502

\* p < .05, \*\* p < .01, \*\*\* p < .001

were younger (about 33- and 35-years-old, respectively). A larger percentage of inmates who spent time in RH were from racial and ethnic minority groups compared to RH-free inmates, with the exception of Asian inmates. For example, 36 percent of inmates who spent time in RH were African American, compared to 27 percent of inmates who spent no time in RH.

A significantly larger percentage of RH-free inmates were admitted to prison for a release violation compared to RH inmates (26 percent and 15 percent, respectively), which likely reflects the fact that release violators have shorter stays in prison. Consistent with this finding, RH inmates had longer average lengths of stay in prison than RH-free inmates (31.3 and 13.6 months, respectively).

Compared to inmates who spent no time in RH, significantly fewer inmates who spent at least one day in RH were in prison for drug, DWI, and other types of offenses. Conversely, a significantly larger proportion of RH inmates were in prison for CSC offenses compared to RH-free inmates (12 and 9 percent, respectively). This finding is consistent with the fact that sexual offenders are often placed in RH for protection from other inmates (Labrecque, 2016; Wormith, Tellier, & Gendreau, 1988). A significantly larger percentage of RH inmates were under ISR upon release than RH-free inmates (28 percent compared to 22 percent, respectively).

As stated previously, the extant research suggests that RH may significantly increase the risk of recidivism because of the characteristics of the inmates who typically spend time in RH. In line with this indication, Table 1 reveals that, compared to inmates who spent no time in RH, a larger percentage of RH inmates had a documented mental health condition (24 percent versus 34 percent, respectively). Moreover, RH inmates had a higher average number of discipline convictions than RH-free inmates (4.98 compared to 0.17, respectively), and RH inmates had a higher average number of STG indicators (1.06 versus 0.51, respectively), meaning that they

were more likely than RH-free inmates to be gang members or affiliates. Contrary to what was expected based on the prior literature, RH and RH-free inmates did not have significantly different prior criminal history scores (-0.02 compared to 0.01, respectively), and RH inmates participated in a slightly-but-significantly higher average number of effective interventions (1.35 compared to 1.20, respectively). In later analyses this research determines whether or not any of the observed group differences impacted the likelihood of recidivism.

### ***Multivariate Analysis Strategy***

To conduct multivariate analyses that control for the range of factors that may confound the relationship between RH and recidivism, survival analysis (Cox regression) was used given that the prison release dates and recidivism event dates were both available. Cox regression allowed this research to estimate the risk of recidivism, as well as the timing to those recidivism events (or the end of the observation period, whichever comes first). Cox regression uses “time” and “status” variables when estimating the impact of RH on recidivism, net of other variables. In the analyses, the “time” variable measures the amount of time from the date of release from prison until the date of first supervised release revocation, rearrest, reconviction, or December 31<sup>st</sup>, 2015 (the end of the observation period for those who did not recidivate). The post-release observation period for the individuals in this sample ranged from 12 to just under 24 months, starting as early as January 2<sup>nd</sup>, 2014. The “status” variable for each recidivism event has a value of “1” if that event occurred or a value of “0” if it did not.

### **Results**

The results displayed In Table 2 include recidivism rates (1) for the entire sample, (2) based on whether or not the inmate spent one day or more in RH, and (3) whether or not the inmate was released directly from RH. This table also includes a *t*-statistic that indicates whether

any differences observed in the last two comparisons were statistically significant. Of the 35 percent of prisoners who spent any time in RH, they had higher rates of supervision revocations, new arrests, and new convictions compared to inmates who spent no time in RH. As the *t*-statistics indicate, all of these differences in recidivism rates were statistically significant. Forty-six percent of inmates who spent as little as one day in RH were revoked from supervision, compared to just 33 percent of inmates who did not spend any time in RH. A little more than one half of inmates who spent time in RH were rearrested (53 percent), compared to 46 percent of inmates who spent no time in RH. Twenty-two percent of inmates who spent time in RH were convicted of a new felony offense, compared to 19 percent of inmates who were not placed in RH.

**Table 2. Comparison of recidivism rates based on time spent in restrictive housing and release from restrictive housing**

<i>Inmate spent any time in restrictive housing</i>	Entire Sample % Reoffending	Yes % Reoffending	No % Reoffending	<i>t</i> -statistic
Supervision Revocation	37%	46%	33%	9.767 ***
New Arrest	48%	53%	46%	4.985 ***
New Conviction	20%	22%	19%	2.256 *
<i>Inmate released directly from restrictive housing</i>	Entire Sample % Reoffending	Yes % Reoffending	No % Reoffending	<i>t</i> -statistic
Supervision Revocation	37%	52%	36%	9.899 ***
New Arrest	48%	61%	47%	5.497 ***
New Conviction	20%	29%	20%	4.546 ***

Note: N = 6,502, except for supervision revocations where N = 5,991

\* p < .05, \*\* p < .01, \*\*\* p < .001

As for inmates released directly from RH, they had significantly higher rates of supervision revocations, new arrests, and new convictions compared to inmates who were not released directly from RH (see Table 2). These differences were particularly stark when looking at supervision revocations (52 percent compared to 36 percent) and new arrests (61 percent compared to 47 percent). However, all of the above rates did not account for the myriad of

differences between inmates who spent time in RH from those who have not (differences displayed in Table 1), including mental health issues, institutional discipline, and STG membership or affiliation. The analyses presented below account for these and several other variables that both differentiate RH and RH-free inmates and also impact recidivism.

### ***Cox Regression Results***

Hazard ratios from three separate Cox regression analyses, each predicting a different measure of recidivism, are presented in Table 3. Looking first at the model predicting supervision revocations, the results show that an increase in the proportion of an inmate's confinement time spent in RH more than doubled the expected incidence of supervision revocations ( $\exp(B) = 2.013$ ;  $p < 0.001$ ). That is even after controlling for several other factors, including mental health, prior behavior, and participation in programming. Being released to the outside directly from RH resulted in an eight percent increase in the expected hazard of supervision revocation ( $\exp(B) = 1.073$ ), however, this relationship was not statistically significant ( $p > 0.05$ ).

Other measures included in the analyses had expected effects on supervision revocations, including basic demographic characteristics. Released male inmates had a significantly higher expected incidence of release revocations relative to released female inmates ( $\exp(B) = 1.233$  or 23 percent), and as inmates aged they had a lower risk of revocation from supervision ( $\exp(B) = 0.983$  or a two percent decrease in the hazard for every additional year in age). Released African American and American Indian inmates had a significantly greater risk of revocation compared to released white inmates ( $\exp(B) = 1.153$  and  $1.374$ , or a 15 and 37 percent increase in the expected incidence, respectively). Among types of offenses, inmates in prison for property,

sexual offenses (CSC), and felony DWI had a significantly higher expected incidence of supervision revocations, relative to person (violent) offenders.

**Table 3. Cox Regression Models: The Impact of Restrictive Housing on Three types of Recidivism**

	Revocation		Rearrest		Reconviction	
	Exp(B)	SE	Exp(B)	SE	Exp(B)	SE
Proportion in RH	2.013***	0.197	1.285	0.169	1.170	0.258
Release from RH	1.073	0.088	0.951	0.079	1.080	0.119
Gender (male)	1.233**	0.082	1.203**	0.063	1.257*	0.103
Age at Release (years)	0.983***	0.003	0.969***	0.002	0.967***	0.004
<i>Race/Ethnicity</i>						
African American	1.153**	0.053	1.157***	0.044	0.998	0.069
American Indian	1.374***	0.066	1.090	0.058	1.093	0.090
White-Hispanic	0.831	0.109	0.749**	0.094	0.740*	0.148
Asian	1.311	0.146	0.981	0.123	1.072	0.181
GED/High School Diploma	0.931	0.055	0.982	0.045	0.851*	0.069
New Commitment	0.957	0.061	1.021	0.054	0.825*	0.081
Length of Stay (months)	1.000	0.001	0.997**	0.001	0.999	0.002
<i>Type of Offense</i>						
Drugs	0.971	0.068	0.952	0.052	0.876	0.082
Property	1.165*	0.062	1.080	0.048	1.053	0.074
CSC	1.466***	0.076	0.476***	0.091	0.461***	0.153
DWI	1.474***	0.087	0.977	0.081	0.929	0.126
Other	1.017	0.095	0.838*	0.076	0.795	0.122
<i>Post-Release Supervision</i>						
ISR	1.078	0.053	0.638***	0.052	0.503***	0.090
Discharge	--	--	1.299***	0.066	1.242*	0.093
Mental Health Condition	1.120*	0.048	1.026	0.042	1.062	0.065
Prior Criminal History	1.246***	0.022	1.279***	0.019	1.324***	0.028
Discipline Convictions	1.004	0.003	1.014**	0.004	1.004	0.007
STG Indicators	1.045**	0.014	1.040**	0.013	1.055**	0.019
Effective Interventions	0.912	0.022	0.864	0.019	0.877	0.032
N	5,991		6,502		6,502	

\* p < .05, \*\* p < .01, \*\*\* p < .001

As explained earlier, given each variable's relationship with RH and with recidivism, the effects of mental health conditions, prior criminal history, discipline convictions, gang affiliations, and participation in effective interventions were all of particular interest in this

study. Having a documented mental health condition significantly increased the hazard of supervision revocation by 12 percent ( $\exp(B) = 1.120$ ;  $p < 0.05$ ), and every one unit increase in an inmate's prior criminal history score was associated with a 25 percent increase in the expected incidence of supervision revocations ( $\exp(B) = 1.246$ ;  $p < 0.001$ ). The total number of discipline convictions received while incarcerated did not have a large or significant impact on the risk of supervision revocation, but being affiliated with a gang did; each one unit increase in the number of STG indicators increased the hazard of supervision revocation by about 5 percent ( $\exp(B) = 1.045$ ;  $p < 0.01$ ). An increase in the number of completed effective interventions was associated with a nine percent decrease in the expected incidence of supervision revocations ( $\exp(B) = 0.912$ ), however, the effect was not statistically significant ( $p > 0.05$ ).

The results of the models predicting rearrest and reconviction followed the same pattern described above, with a few notable differences. First, and most pertinent to the present research, neither measure of RH had a significant relationship with rearrest nor reconviction. Every unit increase in the proportion of confinement time spent in disciplinary RH was associated with a 29 percent increase in the hazard of rearrest ( $\exp(B) = 1.285$ ) and a 17 percent increase in the hazard of reconviction ( $\exp(B) = 1.170$ ), but neither of these coefficients were statistically significant ( $p > 0.05$ ). The relationship between being released directly from RH to the outside and both rearrest and reconviction was close to zero. That is, the hazard ratios are close to 1 (0.969 and 1.080 for arrest and reconviction, respectively), indicating a negligible decrease and increase in the risk of recidivism. Moreover, both coefficients were not statistically significant ( $p > 0.05$ ).

The other notable difference between the first and latter two models was the effect of post-release supervision, or lack thereof. Compared to standard supervision, ISR significantly decreased the hazard of rearrest and reconviction, while discharge from prison without

supervision significantly increased the hazard of both outcomes. This finding may reflect the fact that former inmates under more strict forms of supervision are monitored more carefully and may have fewer opportunities to reoffend compared to inmates under less strict forms of supervision (e.g., Clark, 2016; Duwe, 2015a). Conversely, past research has found that inmates released from prison without supervision have an increased risk of recidivism, possibly due to the lack of structure and resources offered without supervision (Pew Charitable Trusts, 2014).

### **Discussion and Conclusion**

The results of this study show that RH has a limited effect on recidivism. Time spent in RH increased the risk of supervision violations, but did not significantly affect the risk of rearrest or reconviction. Given that supervision violations do not necessarily constitute law violations, it appears that the propensity to violate rules within the facility may translate to supervision violations in the community. However, this propensity to break facility and supervision rules does not translate into new criminal offenses in the community. Additionally, being released to the outside world directly from RH did not have a large or significant impact on any of the three measures of recidivism. The lack of a step-down period between RH and release from prison does not appear to impact recidivism, net of several other inmate and confinement-specific characteristics.

Even though the relationship between RH and mental health was not directly examined, it is worth noting that our findings are similar to those observed for released prisoners with mental disorders. Compared to prisoners without mental illness, recall that those with mental disorders have been found to have higher rates of return to prison for technical violation revocations (Eno Louden & Skeem, 2011; Porporino & Motiuk, 1995). Similarly, despite not having a significant effect on committing new offenses, time spent in RH was associated with increased risk for



supervision revocations. These findings could reflect a greater likelihood of mentally ill prisoners being placed in RH, the potential impact of RH placement on mental health, or both. Future research should disentangle the relationship between RH, mental health, and recidivism.

Additional research is also needed to examine the factors that increase, as well as decrease, the risk of RH placement in prison. Given that most prisoners are not released directly from RH to the community, research should also investigate its effects on prison misconduct. Does placement in RH actually deter future misconduct in prison?

Notwithstanding the results of this and previous similar research, RH will undoubtedly continue to be one of the most controversial practices in corrections. This study examined only recidivism as an outcome, and not other possible outcomes of RH, including short- and long-term physical and mental health conditions. Moreover, this research did not examine the effects of RH on special populations, including severely and persistently mentally ill inmates and juveniles. While the results of this research demonstrate that RH does not have a substantial or significant impact on most measures of recidivism among a general population, it is still conceivable that RH could adversely affect recidivism among more vulnerable populations.

The mostly-null findings of RH's impact on recidivism in this research should not be taken as an endorsement of RH. After all, just because RH may not significantly worsen outcomes does not mean that the status quo should be maintained. The failure to exacerbate reoffending seems like a very low bar to clear. Instead, questions that should be asked are: Does the use of RH lead to better outcomes? And, if so, under what circumstances? To be sure, future research is needed to more fully address these questions. Any optimism about the positive effects of RH, however, should be tempered by what the existing evidence suggests.

Earlier in this study, Pennsylvania’s Eastern State Penitentiary (ESP) was described as perhaps the best-known example of the “separate” system that emerged during the nineteenth century. Historically, punitive approaches that emphasize isolation, such as ESP, have seldom achieved favorable outcomes. Indeed, isolation without programming or any other form of treatment runs contrary to the *principles of effective interventions* that have defined best practices in modern correctional institutions (e.g., Andrews, Bonta, & Hoge, 1990; Gendreau, 1996; Gendreau & Andrews, 1990). According to *the principles*, not only should high-risk inmates—the type of inmates that likely end up in RH—not be isolated, but they should be targeted with the most intensive programming and treatment (Smith, 2016). Therefore, while there may be instances in which it is preferable, if not necessary, to use RH to maintain safe and secure correctional facilities, the evidence suggests that better outcomes can be achieved for prison misconduct (French & Gendreau, 2006), postprison employment (Duwe & Clark, 2017b), and recidivism (Duwe & Clark, 2017a; Gendreau, Little, & Goggin, 1996) by increasing prisoner participation in programming.

## References

- Andrews, D.A., Bonta, J., & Hoge, R.D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior*, 17(1), 19-52.
- Andrews, D.A., Bonta, J., & Wormith, S.J. (2006). The recent past and near future of risk and/or need assessment. *Crime & Delinquency*, 52, 7-27.
- Baumgartel, S., Guilmette, C., Kalb, J., Li, D., Nuni, J., Porter, D. E., & Resnik, J. (2015). Time-In-Cell: The ASCA-Liman 2014 National Survey of Administrative Segregation in Prison.
- Beck, A.J. (2015). *Use of Restrictive Housing in U.S. Prisons and Jails, 2011-2012*. Special Report. Washington, DC: Bureau of Justice Statistics.
- Bonta, J., & Gendreau, P. (1995). Reexamining the cruel and unusual punishment of prison life. In T.J. Flanagan (Ed.), *Long-Term Imprisonment: Policy, Science, and Correctional Practice* (pp. 75-94). Thousand Oaks, CA: Sage.
- Chammah, M. (2016, Jan 7). Stepping Down from Solitary Confinement: New programs are easing prisoners out of years of isolation, with surprising benefits for inmates—and corrections officers. *The Atlantic*. Access at: <https://www.theatlantic.com/politics/archive/2016/01/solitary-confinement-reform/422565/>
- Clark, V.A. (2015). Making the most of second chances: an evaluation of Minnesota's high-risk revocation reduction reentry program. *Journal of Experimental Criminology*, 11(2), 193-215.
- Clark, V.A. (2016). Predicting Two Types of Recidivism among Newly Released Prisoners: First addresses as 'launch pads' for recidivism or reentry success. *Crime & Delinquency*, 62(10), 1364-1400.
- Cochran, J. C., Toman, E. L., Mears, D. P., & Bales, W. D. (2017). Solitary Confinement as Punishment: Examining In-Prison Sanctioning Disparities. *Justice Quarterly*, 1-31.
- Dolan, F.X. (2007). *Eastern State Penitentiary*. Charleston, SC: Arcadia Publishing.
- Duwe, G. (2010). Prison-based chemical dependency treatment in Minnesota: An outcome evaluation. *The Journal of Experimental Criminology* 6: 57-81.
- Duwe, G. (2014). The Development, Validity, and Reliability of the Minnesota Screening Tool Assessing Recidivism Risk (MnSTARR). *Criminal Justice Policy Review*, 25(5), 579-613.

- Duwe, G. (2015a). An Outcome Evaluation of a Prison Work Release Program: Estimating its effects on recidivism, employment, and cost avoidance. *Criminal Justice Policy Review*, 26(6), 531-554.
- Duwe, G. (2015b). The benefits of keeping idle hands busy: An outcome evaluation of a prisoner reentry employment program. *Crime & Delinquency*, 61, 559-586.
- Duwe, G., & Clark, V. (2013). Blessed be the social tie that binds the effects of prison visitation on offender recidivism. *Criminal Justice Policy Review*, 24, 271-296.
- Duwe, G., & Clark, V. (2014). The Effects of Prison-Based Educational Programming on Recidivism and Employment. *The Prison Journal*, 94(4), 454-478.
- Duwe, G. & Clark, V. (2015). Importance of program integrity: Outcome evaluation of a gender-responsive, cognitive-behavioral program for female offenders. *Criminology & Public Policy*, 14, 301-328.
- Duwe, G., & Clark, V. (2017a). The Rehabilitative Ideal versus the Criminogenic Reality: The consequences of warehousing prisoners. *Corrections: Police, Practice and Research*, 2(1), 41-69.
- Duwe, G., & Clark, V. (2017b). Nothing will work unless you did: The predictors of post-prison employment. *Criminal Justice and Behavior*, 44, 657-677.
- Duwe, G. & Goldman, R. (2009). The impact of prison-based treatment on sex offender recidivism: Evidence from Minnesota. *Sexual Abuse: A Journal of Research and Treatment*, 21: 279-307.
- Duwe, G. & Kerschner, D. (2008). Removing a nail from the boot camp coffin: An outcome evaluation of Minnesota's Challenge Incarceration Program. *Crime & Delinquency*, 54: 614-643.
- Duwe, G. & King, M. (2013). Can faith-based correctional programs work? An outcome evaluation of the InnerChange Freedom Initiative in Minnesota. *International Journal of Offender Therapy and Comparative Criminology*, 57: 813-841.
- Ecclestone, C. E., Gendreau, P., & Knox, C. (1974). Solitary confinement of prisoners: An assessment of its effects on inmates' personal constructs and adrenocortical activity. *Canadian Journal of Behavioural Science*, 6(2), 178-191
- Eno Louden, J. & Skeem, J. (2011). Parolees with mental disorder: Toward evidence-based practice. *Bulletin of the Center for Evidence-Based Corrections*, 7, 1-9.
- Foster, H. (2016). The Conditions of Confinement in Restrictive Housing. In *Restrictive Housing in the U.S.: Issues, Challenges, and Future Directions*. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.

- French, S.A., & Gendreau, P. (2006). Reducing prison misconducts: What works! *Criminal Justice and Behavior*, 33, 185-218.
- Frost, N.A., & Monteiro, C.E. (2016). Administrative Segregation in U.S. Prisons. In *Restrictive Housing in the U.S.: Issues, Challenges, and Future Directions*. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.
- Gendreau, P. (1996). The principles of effective interventions with offenders. In A. T. Harland (ed.), *Choosing Correctional Options That Work: Defining the Demand and Evaluating the Supply*. Thousand Oaks, Calif.: Sage
- Gendreau, P., & Andrews, D.A. (1990). Tertiary prevention: What the meta-analyses of the offender treatment literature tell us about what works. *Canadian Journal of Criminology*, 32, 173-184.
- Gendreau, P., & Bonta, J. L. (1984). Solitary confinement is not cruel and unusual punishment: Sometimes people are! *Canadian Journal of Criminology*, 26(4), 467-478.
- Gendreau, P., Little, T., & Goggin, C. (1996). A Meta-Analysis of the Predictors of Adult Offender Recidivism: What Works! *Criminology*, 34(4), 575-607.
- Goode, E. (2014, March 15). After 20 Hours in Solitary, Colorado's Prisons Chief Wins Praise. *The New York Times*. Retrieved from <https://nyti.ms/1eF9IfW>
- Goode, E. (2015, August 3). Solitary Confinement: Punished for Life. *The New York Times*. Retrieved from <https://nyti.ms/1HmwM0f>
- Haney, C. (2003). Mental health issues in long-term solitary and "supermax" confinement. *NCCD news*, 49(1), 124-156.
- Jackson, M. (1983). *Prisoners of isolation: Solitary confinement in Canada*. Toronto, Canada: University of Toronto Press.
- Kapoor, R., & Trestman, R. (2016). Mental Health Effects of Restrictive Housing. In *Restrictive Housing in the U.S.: Issues, Challenges, and Future Directions*. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.
- Kim, K., Becker-Cohen, M., & Serakos, M. (2015). *The Processing and Treatment of Mentally Ill Persons in the Criminal Justice System*. Research Report. Washington, DC: Urban Institute.
- Kurki, L., & Morris, N. (2001). The purposes, practices, and problems of supermax prisons. *Crime and Justice*, 28, 385-424.
- Labrecque, R. L. (2015). *The effect of solitary confinement on institutional misconduct: A longitudinal evaluation*. Doctoral Dissertation. University of Cincinnati.

- Labrecque, R. L. (2016). The Use of Administrative Segregation and Its Function in the Institutional Setting. In *Restrictive Housing in the U.S.: Issues, Challenges, and Future Directions*. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.
- Lovell, D. Johnson, L.C., & Cain, K.C. (2007). Recidivism of Supermax Prisoners in Washington State. *Crime & Delinquency*, 53(4), 633-656.
- Mallik-Kane, K., & Visher, C.A. (2008). *Health and Prisoner Reentry: How physical, mental, and substance abuse conditions shape the process of reintegration*. Research Report. Washington, DC: Urban Institute.
- Mears, D.P. & Bales, W.D. (2009) Supermax Incarceration and Recidivism. *Criminology*, 47(4), 1131-1166.
- Mears, D.P. (2006). *Evaluating the Effectiveness of Supermax Prisons*. Research Report. Washington, DC: Urban Institute, Justice Policy Center.
- O'Keefe, M. L. (2007). Administrative segregation for mentally ill inmates. *Journal of Offender Rehabilitation*, 45, 149-165.
- O'Keefe, M. L. (2008). Administrative segregation from within: A corrections perspective. *The Prison Journal*, 88(1), 123-143.
- O'Keefe, M. L., Klebe, K. J., Stucker, A., Sturm, K., & Leggett, W. (2010). One year longitudinal study of the psychological effects of administrative segregation. Colorado Springs, CA: Colorado Department of Corrections.
- Pew Charitable Trusts. (2014). *Max out: The rise in prison inmates released without supervision*. Washington, DC: Pew Charitable Trusts.
- Pizarro, J., & Stenius, V. M. (2004). Supermax prisons: Their rise, current practices, and effect on inmates. *The Prison Journal*, 84(2), 248-264.
- Porporino, F. & Motiuk, L. (1995). The prison careers of mentally disordered offenders. *International Journal of Law and Psychiatry*, 18, 29-44.
- Pyrooz, D.C. (2016). Gang Affiliation and Restrictive Housing in U.S. Prisons. In *Restrictive Housing in the U.S.: Issues, Challenges, and Future Directions*. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.
- Rothman, D.J. (1971). *The Discovery of the Asylum*. New Brunswick, NJ: Transaction Publishers.
- Rundle, F. (1973). The roots of violence at Soledad. In E.O. Wright (Ed.) *The politics of punishment: A critical analysis of prisons in American* (pp. 163-172). New York, NY: Harper.

- Scott, G. (1969). The prisoner of society: Psychiatric syndromes in captive society. *Correctional psychologist*, 3(7), 3-5.
- Shames, A., Wilcox, J., & Subramanian, R. (2015). *Solitary Confinement: Common misconceptions and emerging safe alternatives*. New York, NY: Vera Institute of Justice.
- Shapiro, J. (2015, June 12). Coming home straight from solitary damages inmates and their families. *National Public Radio*. Retrieved from <http://www.npr.org/2015/06/12/413730912/coming-home-straight-from-solitary-damages-inmates-and-their-families>.
- Slater, R. (1986). Psychiatric intervention in an atmosphere of terror. *American Journal of Forensic Psychiatry*, 7(1), 5-12.
- Smith, P. (2016). Toward and Understanding of “What Works” in Segregation: Implementing correctional programming and re-entry-focused services in restrictive housing. In *Restrictive Housing in the U.S.: Issues, Challenges, and Future Directions*. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.
- Suedfeld, P. (1984). Measuring the effects of solitary confinement. *American Journal of Psychiatry*, 141(10), 1306-1308.
- Thompson, C. (2015, June 11). From Solitary to the Street: What happens when prisoners go from complete isolation to complete freedom in a day. *The Marshall Project*. Retrieved from <https://www.themarshallproject.org/2015/06/11/from-solitary-to-the-street>.
- Wormith, J. S., Tellier, M. C., & Gendreau P. (1988). Characteristics of protective custody offenders in a provincial correctional center. *Canadian Journal of Criminology*, 30, 39-58.
- Zinger, I., Wichmann, C., & Andrews, D. A. (2001). The psychological effects of 60 days in administrative segregation. *Canadian Journal of Criminology*, 43(1), 47-83.