*Original Manuscript*

# Addressing Serious Violent Misconduct in Prison: Examining an Alternative Form of Restrictive Housing

International Journal of Offender Therapy and Comparative Criminology
1–24

DOI: 10.1177/0306624X18778451
journals.sagepub.com/home/ijo
SAGE

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**Abstract**

A number of scholars, civil, and human rights activists have expressed concern about the negative impact restrictive housing may have on the physical and mental well-being of inmates. Rigorous, theoretically informed outcome evaluations, however, are virtually nonexistent. Guided by theory and existing empirical evidence, this study explores the future behavioral and mental health outcomes associated with completing an alternative approach to restrictive housing in the Arizona Department of Corrections. To explore program outcomes, we use paired-sample *t* tests to determine whether post-program behavior is significantly different from preprogram behavior. In addition, we use cross tabulations and independent samples *t* tests to identify relationships between individual-level inmate and program characteristics and program outcomes. Results from this study suggest that a more therapeutic restrictive status housing program has the potential to improve the future behavior of program graduates; however, future research is needed to build upon these findings.

**Keywords**

restrictive housing, corrections, institutional misconduct, correctional policy, program evaluation

Whether it be called administrative segregation, restrictive housing, or solitary confinement, it is clear that the effects of isolation are at the forefront of national discussions on crime and punishment. The National Institute of Justice has given significant

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attention to the issue (Garcia, 2016), as has the Vera Institute of Justice (Shames, Wilcox, & Subramanian, 2015), and the Association of State Correctional Administrators has supported efforts to limit the use of extended isolation (Baumgartel et al., 2015). The attention is well-deserved, as some have argued that the practice leads to significant harm to the mental health of inmates (Cloud, Drucker, Browne, & Parsons, 2015; Haney, 2003; Haney & Lynch, 1997; Smith, 2006). Indeed, restrictive housing (hereafter referred to as "RH") may represent the epitome of the "penal harm" movement in the United States (Clear, 1994).

It is important to note, however, that not all research documents negative outcomes associated with segregation practices (Morgan et al., 2016; Morris, 2016; O'Keefe et al., 2013; Suedfeld, Ramirez, Deaton, & Baker-Brown, 1982; Suedfeld & Roy, 1975). It is likely that individual characteristics of inmates affect the level of distress experienced by segregation. Furthermore, there is no "one" RH; in practice, RH varies in terms of its rationale and frequency of use, duration, and facility conditions (Beck, 2015; Morris, 2016; Shames et al., 2015). And, although eliminating the practice entirely might get rid of any potential damage done to inmate physical and mental health, the simple fact is that RH represents a critical tool for managing inmate behavior. Many correctional officials feel that some type of response is needed when inmates engage in serious violence—the safety and security of staff and other inmates largely depends on it (Mears & Castro, 2006; O'Keefe, 2008). In that regard, it is notable that *alternatives* to traditional RH are largely absent from these national discussions. O'Keefe and colleagues (2013) recommend that "future research is needed to understand how increased services, privileges, staff, and out-of-cell time may ameliorate the unintended consequences of administrative segregation" (p. 59). Indeed, altering existing forms of RH to minimize harm may represent the best bet for corrections moving forward.

The purpose of the current work is to provide an analysis of a restrictive status housing program (RSHP) that serves as disciplinary segregation for inmates who have engaged in serious violence. Specifically, the Arizona Department of Corrections (ADC) has implemented a contingency-management approach that moves beyond traditional segregation by providing incentives for inmates to complete programming and remain discipline-free. We determine whether this approach is working by comparing inmate outcomes (e.g., major misconducts, assault on staff, mental health scores) 1 year prior to and 1 year following graduation from the RSHP. Our broader purpose is to determine whether a more progressive approach to RH serves as a promising alternative to more traditional forms of segregation.

## The Rise of Restrictive Housing in the United States

In the 1970s, a fundamental shift in penal philosophy occurred in the United States. The ideals of rehabilitation were replaced by philosophies of deterrence and incapacitation as the modus operandi of the correctional system (Cullen, 2005; Garland, 2001). The shift in penal philosophy led to a massive growth in the rate of imprisonment in which the use of RH arose as a means to control overcrowded prisons and jails (Hershberger, 1998; Shalev, 2009).

Coupled with the massive growth in the prison population, increasing rates of violence further advanced the development of RH units within U.S. prisons (Pizarro & Stenius, 2004; Riveland, 1999). More specifically, the widespread use of RH units in the United States was revived with the opening of the United States Penitentiary in Marion, Illinois (USP Marion; R. D. King, 1999; Mears & Reisig, 2006). Following the killing of two correctional officers at USP Marion in 1983, the facility was modified to improve security by increasing the reliance on segregation (Richards, 2008; Ward & Werlich, 2003). Based on the model used by USP Marion, the first high security prison, Pelican Bay, was built in 1989 with the explicit purpose of housing prisoners in segregation (Bosworth, 2004).

After the establishment of these facilities, the overall use of RH increased rapidly during the 1990s. By 2004, 40 states had implemented segregation-specific facilities within their prison systems (Browne, Cambier, & Agha, 2011; Cloud et al., 2015; Shalev, 2009). According to some estimates, the number of inmates housed in segregation rose by 40% between 1995 and 2000. Today, it is estimated that between 80,000 and 100,000 inmates were held in segregated units in 2014 (Baumgartel et al., 2015). On an average day, roughly, 4.4% of state and federal prisoners were held in some form of segregated confinement in the United States. In addition, nearly 20% of state and federal prison inmates had spent time in segregated housing (e.g., disciplinary or administrative segregation) in the past 12 months (Beck, 2015).[1]

## The Current Use of Restrictive Housing in the United States

The primary purpose for the implementation and continued use of RH is the belief that the practice increases institutional order, functioning, safety, and control (Pizarro & Stenius, 2004; Sundt, Castellano, & Briggs, 2008). Proponents of using RH to maintain the safety and security of the correctional institution argue that there are some inmates, or groups of inmates, who present such a risk to the goals of safety and security that they cannot be housed in the general prison population (O'Keefe, 2008; Pizarro & Narag, 2008; Pizarro, Stenius, & Pratt, 2006). For example, Mears and Castro (2006) found that prison wardens were "largely unanimous" in their belief that the practice of isolating troublesome inmates continues to be an effective way to increase safety and order within the prison (p. 407). These opinions were supported in a recent review of official correctional policies, finding that the majority of states identify "threats to institutional security" as the primary motivation for placement in RH (H. D. Butler, Griffin, & Johnson, 2013, p. 688). Collectively, RH, whether for punitive or other reasons, is characterized by very little out-of-cell time, limited interaction with other inmates or staff, and reduced privileges (Beck, 2015; Mears, 2008; Mears & Watson, 2006).

In the United States, there are at least three different types of RH used: administrative segregation, protective custody, and disciplinary segregation (Cloud et al., 2015; Morris, 2016; Shames et al., 2015). The varying uses of RH have produced many challenges for conducting and interpreting research in this area (Frost & Monteiro, 2016).

Because of the obscurity in the varying definitions used, it is important to clearly define the three types of segregated housing mentioned above. As a correctional practice, *administrative segregation* is used to isolate inmates who are deemed a threat to the safety and security of the correctional facility. Inmates are placed in administrative segregation for a number of reasons including prolonged patterns of disorderly behavior, participation in the activities of security threat groups (STG), or the broad classification as "high-risk" (Hershberger, 1998; Kupers et al., 2009; O'Keefe et al., 2013). *Protective custody*, on the contrary, refers to the use of segregation as a means to provide safety to inmates who may be at risk for victimization if housed in the general prison population (Gendreau, Tellier, & Wormith, 1985; Hastings, Browne, Kall, & diZerega, 2015).[2]

Unlike administrative or protective segregation, which commonly involves indefinite placement, *disciplinary segregation* refers to temporary confinement in a segregated housing unit as punishment following serious institutional rule violations (Browne et al., 2011; H. D. Butler & Steiner, 2017). There are at least three reasons to believe that the use of disciplinary segregation may remain as the sole form of RH used by correctional officials and administrators in the future. First, as noted at the onset, the use of disciplinary segregation is a necessary correctional tool. Some sort of response is needed when an individual commits a violent act within the institution; the safety and security of the facility, staff, and other inmates depends on it. Second, exposure to disciplinary segregation is traditionally short in duration. Due to the temporary nature of the placement, the potentially damaging effects of isolation can be minimized or eliminated (see, for example, Grassian, 1983; Haney & Lynch, 1997). Third, disciplinary segregation is a widespread practice in the United States and as a result, the practice can be modified based on existing empirical evidence (Morris, 2016). Because of these reasons, the practice is less likely to garner the same criticisms as placement in administrative segregation and protective custody (see, for example, Ortega, 2012; Weir, 2012), and research on this particular form of RH is especially needed to guide the modification of existing practice.

## The Effect of Placement in Restrictive Housing

Research examining RH in the United States has been decidedly mixed as to whether the practice produces unintended, negative outcomes (for review see Kapoor & Trestman, 2016). A growing body of research suggests that conditions of confinement that characterize many segregation units have direct and adverse effects on the physical and mental health of prisoners—effects that are argued to continue once the inmate is released (Andersen et al., 2000; Haney, 2006, 2008, 2012; Miller, 1994; Miller & Young, 1997). Others, however, have found a null or nonsignificant effect of placement on a number of important outcomes including recidivism (Lovell, Johnson, & Cain, 2007; Mears & Bales, 2009; Pizarro, Zgoba, & Haugebrook, 2014), aggregate rates of violence and disorder (Austin & Irwin, 2001; Briggs, Sundt, & Castellano, 2003), and individual-level misconduct (Labrecque, 2015; Morris, 2016). A recent meta-analysis on the effects of segregated confinement documented little support for

the long-held idea that placement in segregated confinement has lasting psychological and behavioral effects (Morgan et al., 2016; see also, Smith, Gendreau, & Labrecque, 2015). The theoretical rationale and programmatic components of the various forms of RH could help sort out these mixed findings within the literature.

## *Restrictive Housing as Specific Deterrence*

The conditions of confinement that define most segregation units operate under a deterrence framework—namely, specific deterrence (DeJong, 1997; Stafford & Warr, 1993). It has been argued that increasing the severity of punishment, through placement in more restrictive housing with less opportunities and privileges, constitutes a form of specific deterrence in that inmates who experience such conditions should be deterred from committing future offenses (Mears & Reisig, 2006; Pizarro & Stenius, 2004; Sundt, 2016; Ward & Werlich, 2003). Results from several studies have found that the traditional RH environments are significantly more severe and adverse than conditions associated with placement in the general population (K. King, Steiner, & Breach, 2008; Kurki & Morris, 2001). Through this process, inmates who experience RH should be deterred from committing future infractions within the facility. Research on the area of deterrence, however, indicates that in most cases, deterrence as a correctional policy does not work (Cullen, 1995; Nagin, 2013; Paternoster, 1987; see generally, Pratt & Cullen, 2005).

RH practices that operate under traditional deterrence frameworks are unlikely to produce positive effects, and may even explain the adverse effects associated with placement found in previous research (see, for example, Haney, 2003, 2006; Landenberger & Lipsey, 2005; Lovell et al., 2007). For example, Miller and Young (1997) explored the relationship between levels of restriction and mental health outcomes in a small sample of inmates. When comparing three levels of restriction (i.e., general population, administrative detention, and disciplinary segregation), the researchers found that as the level of restriction increased, so too did rates of psychological distress. More specifically, feelings of hostility, inferiority, and irresistible impulses were significantly related to increases in the level of restriction (see also Miller, 1994). Although it is likely that locking inmates away in harsh, adverse environments will do little to achieve the objectives and goals of RH (Listwan, Sullivan, Agnew, Cullen, & Colvin, 2013), there is a substantial body of evidence on what promotes behavioral change that could inform existing practice. In light of the growing criticism over traditional segregation practices, a number of states have begun to alter the way violence and other serious misconduct is addressed within their facilities (Shames et al., 2015).[3]

## *Alternative Approaches to Restrictive Housing*

In contrast to the weak effects found in many deterrence-based strategies, there is reason to believe that RH, especially disciplinary segregation, can be designed in a way that reduces the likelihood of the negative behavioral and mental health outcomes

described in previous research (see, for example, Haney, 2012). RH programs or units that are based on theories of effective correctional intervention, specifically programs that follow risk-needs-responsivity (RNR) principles, are likely to lead to an increase in prosocial behavior (Gendreau, Smith, & French, 2006; see generally, Lipsey & Cullen, 2007).[4] A number of meta-analyses have confirmed that these correctional programs that adhere to these principles consistently achieve higher reductions in antisocial behavior than other programs—especially as compared with those under a deterrence framework (Andrews et al., 1990; A. C. Butler, Chapman, Forman, & Beck, 2006; Landenberger & Lipsey, 2005; McGuire, 2002).

RH programs that include components of this framework may limit the potential adverse consequences of isolation. As such, studies finding no/null effects may be examining programs that include a therapeutic component. The much-discussed "Colorado Study" conducted by O'Keefe and colleagues (2013) provides support for this idea. The authors found that segregated housing (i.e., administrative segregation) did not worsen the psychological symptoms of inmates as compared with inmates who did not experience segregated housing over the same time period. This may be due to elements of a program that provides "incentive-based behavior modification and cognitive programs" in which every inmate is required to complete 3 months of "televised cognitive classes" (O'Keefe et al., 2013, p. 51). In addition, individual counseling sessions and crisis management are available to offenders. Indeed, this would be consistent with other correctional approaches that have been found to "work" when punitive approaches (i.e., discipline) are combined with treatment (i.e., therapeutic intervention) (see the discussion by MacKenzie, Bierie, & Mitchell, 2007).

Taken altogether, available evidence suggests that traditional forms of RH, based on philosophies of deterrence, are likely to lead to unintended and potentially negative behavioral and mental health outcomes for those exposed to these conditions. And yet, there exists a number of theoretically informed alternatives to the traditional style of RH currently being used in the United States (O'Keefe et al., 2013; Shames et al., 2015). Theoretically informed evaluations of these alternatives, however, have yet to appear in the literature concerning the effects of placement in RH.

## Current Focus

A number of scholars, civil, and human rights activists have expressed concern about the potentially negative impact RH may have on the physical and mental well-being of inmates. Despite these concerns, RH remains a critical tool for managing in-prison behavior. When inmates engage in violence within the institution, there needs to be some sort of response to maintain the safety and security of the facility. Thus, there exists a need to find a style of RH that accomplishes the goals of safety and security while doing no further harm to those housed in these environments. Guided by theory and existing empirical evidence, this study explores the future behavioral and mental health outcomes associated with completing the RSHP. The broader purpose of this research is to build upon and advance existing research on RH in the following ways. First, the study evaluates the effectiveness of a RH program that is specifically designed

to include therapeutic elements that address the needs of inmates who engage in serious assaults. Second, the study documents program outcomes by comparing the behavior and mental health of inmates prior to and after completion of the RSHP. Finally, the study focuses on the unique programming elements of ADC's RSHP to inform on the theoretical foundations of RH practice.

## Study Setting

In light of the negative evidence and criticism surrounding the use of RH in the United States, a number of states (e.g., Alaska, California, Colorado, Maine, Massachusetts, New Mexico, Virginia) have taken steps to implement alternative strategies to address troublesome inmates within their facilities (for a review, see Shames et al., 2015). Similarly, the ADC implemented a RSHP in the Central Unit of the Arizona State Prison Complex-Florence (ASPC-F) in 2014. RH, as implemented in ASPC-F, is specific to what Shalev (2009) defines as "punitive segregation," where exposure to the RH constitutes a temporary punishment in response to acts of misconduct (p. 2; see also, Browne et al., 2011; H. D. Butler & Steiner, 2017). The RSHP targets inmates from the ADC who have committed one of "three forbidden acts": (a) serious assault on staff, (b) aggravated assault on another inmate involving a weapon or serious injury, or (c) aggravated assault on another inmate involving multiple aggressors and a single victim. Inmates charged with one of the forbidden acts are required to participate in a three-step contingency-management program involving cognitive-based group counseling and self-study programs (see appendix for a description of ADC's three-step approach). Through disincentives and incentives, the RSHP aims to promote "real change in the thought processes and values of the participating inmates" (ASPC-F, 2014, p. 2).

The RSHP involves an intense and rigid programming structure that is designed to "change their assaultive behavior, enhance their social skills, expand their thinking processes, and assist them in understanding the importance of pro-social values and relationship building" (ASPC-F, 2014, p. 8). These changes are facilitated by a number of therapeutic elements including group counseling delivered by the RSHP case manager, completion of self-study, and educational television (ETV) modules, practice of rigid adherence to rules and regulations, and frequent and supportive interactions with RSHP staff and program participants in a safe and secure environment. In contrast to many traditional forms of disciplinary segregation, the RSHP requires participants to complete six group counseling programs that address topics like social values, self-control, responsible thinking, substance abuse, as well as feelings and emotions.[5] In addition, RSHP participants are required to complete a number of self-study and ETV modules that are selected by the RSHP case managers based on an assessment of individual needs.[6] The materials used to facilitate each of these programming components are described as "evidence-based, cognitive behavioral programs" (ASPC-F, 2014, pp. 7-8). Importantly, the program still retains all of the punitive aspects of RH, including stripping inmates of all property, restricting visitation, and phone privileges, and requiring the inmate to spend most of his time in a small cell.

## Method

### Data and Sample

Data for the present study were gathered using the Adult Inmate Management System (AIMS) database. AIMS contains information on a number of inmate characteristics including incarceration history, institutional movements, inmate demographics, and current programming information. The AIMS system also contains information related to the inmate's institutional misconduct history such as minor (e.g., disrupting count, grooming violations, refusal to work) and major (e.g., aggravated assault, promoting prison contraband, positive urinalysis) violations. In addition, AIMS allows for qualitative notes to be provided by ADC staff. These notes include detailed descriptions of the inmate's progress in programming, specific details related to violations, and documentation of any difficulties experienced during placement in the RSHP. Data obtained using the AIMS database were cross-referenced to ensure accuracy using several additional data sources including Arizona Criminal Justice Information System (ACJIS) files, program rosters, and program packet completion datasheets.

These data were limited to only account for adult male inmates who graduated from the RSHP between March 10, 2014 and January 31, 2017.[7] As of January 31, 2017, a total of 284 inmates graduated from the RSHP. The program graduates had various periods of follow-up, with 44 having less than a 6-month follow-up (15.5%), 55 having at least a 6-month follow-up (19.4%), and 185 having a full 12-month follow-up (65.1%). Because the present research focuses on the effects of RSHP placement and subsequent behavioral and mental health outcomes, a subsample of program graduates was used to explore 6- and 12-month outcomes exclusively ($N = 240$).

### Variables

*Key outcome measures.* The key variables of interest in this study measure the behavior of participants both before and after program completion. All of these variables were measured at 12 (Time 1) and 6 (Time 2) months prior to placement in the RSHP. These variables were again measured at 6 (Time 3) and 12 (Time 4) months after completion of the RSHP. Only violations in which the inmate was found guilty were included. Any violation that resulted in a not guilty determination or was resolved informally was not recorded. These variables include number of major violations (e.g., possession of a weapon), number of minor violations (e.g., being out of place), number of drug violations, number of staff assaults, and the number of assaults on other inmates. We also include an official measure of the participant's mental health. ADC relies on a standardized classification system in which inmates are classified into one of five mental health statuses depending on their level of treatment needs (MH-1 through MH-5). All variables of interest were measured at the 4 time points described above.

*Program-specific measures.* The key variables of interest described above were also measured during placement in the RSHP (e.g., number of minor violations committed while in the program). In addition, the number of days spent in the program was also

**Table 1.** RSHP Graduate Characteristics ($N$ = 240).

| | *M* | *SD* | Minimum | Maximum |
|---|---|---|---|---|
| Age[a] | 32.15 | 7.40 | 20.68 | 65.56 |
| Race | | | | |
| Caucasian | 0.12 | — | 0.00 | 1.00 |
| African American | 0.11 | — | 0.00 | 1.00 |
| Hispanic | 0.70 | — | 0.00 | 1.00 |
| Native American | 0.07 | — | 0.00 | 1.00 |
| STG | 0.69 | — | 0.00 | 1.00 |
| GED | 0.55 | — | 0.00 | 1.00 |
| Mandatory literacy | 0.66 | — | 0.00 | 1.00 |
| Mental health score[b] | 2.06 | 0.95 | 1.00 | 4.00 |
| Prior incarceration | 1.03 | 1.23 | 0.00 | 7.00 |
| Lifetime offending | | | | |
| Major violations | 6.95 | 5.46 | 0.00 | 34.00 |
| Minor violations | 6.93 | 7.54 | 0.00 | 41.00 |
| Staff assaults | 0.38 | 0.66 | 0.00 | 4.00 |
| Inmate assaults | 0.67 | 0.76 | 0.00 | 5.00 |
| Drug violations | 1.35 | 1.86 | 0.00 | 9.00 |
| Program characteristics | | | | |
| Time in program[c] | 150.90 | 44.87 | 121.00 | 398.00 |
| Major violations | 0.28 | 0.56 | 0.00 | 2.00 |
| Minor violations | 0.33 | 0.64 | 0.00 | 3.00 |
| Staff assaults | 0.01 | 0.09 | 0.00 | 1.00 |
| Inmate assaults | 0.08 | 0.26 | 0.00 | 1.00 |
| Drug violations | 0.04 | 0.19 | 0.00 | 1.00 |

*Note.* GED = general education diploma; STG = security threat group.
[a]Age at the start of data collection.
[b]Corresponds to the most recent mental health score prior to placement in RSHP. Mental health scores were available for 102 participants (42.5%).[8]
[c]Time in program is measured in days.

documented. Table 1 summarizes the characteristics of participants that were housed in the RSHP. Participants were placed in the RSHP for a number of institutional violations including inmate assaults (46.7%; $n$ = 112), participation in a riot/group assault (26.7%; $n$ = 64), assault on staff (22.5%; $n$ = 54), and fighting (4.2%; $n$ = 10). The 240 graduates spent, on average, 150.9 days housed in the RSHP ($SD$ = 44.87). Time in the RSHP ranged from a minimum of 121 days to a maximum of 398 days. Time in program is a critical measure of program success as participants who fail to meet program requirements are required to spend more time in the program (see the appendix). During the program, participants averaged 0.28 major offenses ($SD$ = 0.56), 0.33 minor offenses ($SD$ = 0.64), 0.01 staff assaults ($SD$ = 0.09), 0.08 inmate assaults ($SD$ = 0.26), and 0.04 drug offenses ($SD$ = 0.19). These crucial program characteristics allow for an analysis of whether variation in program performance affects the overall future outcomes associated with program graduation.

**Table 2.** *T*-Tests Examining Change in 6-Month Outcomes (*N* = 240).

| | Pre-placement | | Post-placement | | |
|---|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* | *t* |
| Mental health score[a] | 2.14 | 0.95 | 2.21 | 0.98 | −1.00 |
| Major violations | 1.74 | 1.20 | 0.31 | 0.69 | 16.48*** |
| Minor violations | 0.60 | 1.04 | 0.47 | 0.76 | 1.54 |
| Staff assaults | 0.25 | 0.45 | 0.02 | 0.13 | 7.83*** |
| Inmate assaults | 0.45 | 0.51 | 0.05 | 0.22 | 10.97*** |
| Drug violations | 0.18 | 0.48 | 0.06 | 0.24 | 3.58*** |

*Note.* RSHP = restrictive status housing program.
[a]Mental health scores were available for 91 RSHP graduates (*n* = 91; 38%).
*$p \leq .10$. **$p \leq .05$. ***$p \leq .01$.

*Demographic characteristics.* Individual-level information was collected for each program graduate that represents his demographics and criminal history. Inmate age was measured as a continuous variable (in years). The average age at the time of data collection was 32.15 years old (*SD* = 7.40); ranging from 20.7 to 65.6 years old. The participant's most recent mental health score prior to placement was also measured. Mental health scores, as defined by ADC, range from 1 to 5 with 5 representing the most serious mental health diagnosis. The average mental health score prior to RSHP in this sample was 2.06 (*SD* = 0.95), indicating a relatively low prevalence of officially diagnosed mental illness.[9] Race/ethnicity was measured using a series of dummy variables (0 = no; 1 = yes). The majority of the sample was Hispanic (70.4%; *n* = 169), followed by Caucasian (11.7%; *n* = 28), African American (11.3%; *n* = 27), and Native American (6.7%; *n* = 16). Educational history was also measured with dummy variables (0 = no; 1 = yes), which reflect whether the individual had earned a GED and had achieved mandatory literacy requirements. The majority of graduates in this sample earned a GED (55%) with 66% meeting mandatory literacy requirements. The STG status of program graduates was also documented. Suspected and or validated STG members constituted approximately 69.6% (*n* = 167) of the final sample.

Graduates in this sample had, on average, 1.03 prior incarcerations (range = 0-7). A lifetime snapshot of institutional offending among program graduates shows considerable levels of misconduct. Lifetime major violations ranged from 0 to 34, with participants having, on average, 6.95 major lifetime violations (*SD* = 5.46). Lifetime minor violations ranged from 0 to 41, with participants having, on average, 6.93 minor lifetime violations (*SD* = 7.54). Furthermore, participants averaged 0.38 lifetime staff assaults (*SD* = 0.66; range = 0-4) and 0.67 lifetime inmate assaults (*SD* = 0.76; range = 0-5). Participants also had, on average, 1.35 lifetime drug violations (*SD* = 1.86; range = 0-9) prior to the program. It is clear that the current offense and lifetime history of these individuals depicts them as a high-risk group.

## Analytic Strategy

The analyses proceed in two stages. First, we examine whether program graduates showed improved in-prison behavior following release from the RSHP. Specifically, we use paired sample *t* tests and one-way ANOVA models to determine whether post program behavior at 6 and 12 months is statistically significantly different from pre-program behavior. Next, we conduct supplementary analyses to identify relationships between individual-level inmate and program characteristics and program outcomes. In doing so, cross tabulations and independent samples *t* tests are performed to examine relationships in the data. Statistical analyses were conducted using Stata 14 (StataCorp, 2015).

## Results

### *Six-Month Outcomes*

As shown in Table 2, paired samples *t* tests were used to determine changes in participant outcomes 6 months after completion of the RSHP ($n = 240$). Collectively, statistically significant change was observed in four out of the six outcomes of interest: major violations ($t = 16.48$; $p < .01$), staff assaults ($t = 7.83$; $p < .01$), inmate assaults ($t = 10.97$; $p < .01$), and drug violations ($t = 3.58$; $p < .01$). Two outcomes, mental health scores ($t = -1.00$) and minor violations ($t = 1.54$) did not show statistically significant change in the 6 months following completion of the RSHP.[10] At 6 months, the majority of participants (52.5%; $n = 126$) had no violations following release from the RSHP.

### *Twelve-Month Outcomes*

Statistically significant reductions were observed 12 months post-RSHP in four out of the six outcomes of interest: major violations ($t = 12.81$, $p < .01$), staff assaults ($t = 6.83$, $p < .01$), inmate assaults ($t = 8.25$, $p < .01$), and drug violations ($t = 3.91$, $p < .01$).[10] Similar to the 6-month outcomes described above, there was no significant change in mental health scores ($t = -0.83$).[11] In addition, no significant change was observed for minor violations in this sample ($t = 1.23$) across the study period. By 12 months, only 36.2% of participants ($n = 67$) had no violations following release from the RSHP. These findings are summarized in Table 3.[12]

### *Supplemental Analysis*

The analyses now turn to an exploration of the characteristics that distinguish program failures from successes. To determine whether behavioral outcomes varied across key characteristics, a series of cross tabulations and independent samples *t* tests were conducted. Specifically, critical post program outcomes were assessed across demographic variables (e.g., race, STG status), criminal history variables (e.g., number of previous

**Table 3.** *T*-Tests Examining Change in 12-Month Outcomes ($n$ = 185).

| | Pre-placement | | Post-placement | | |
|---|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* | *t* |
| Mental health score[a] | 2.48 | 1.06 | 2.62 | 1.01 | −0.83 |
| Major violations | 2.46 | 1.86 | 0.58 | 0.99 | 12.81*** |
| Minor violations | 1.14 | 1.63 | 0.96 | 1.30 | 1.23 |
| Staff assaults | 0.28 | 0.49 | 0.03 | 0.16 | 6.83*** |
| Inmate assaults | 0.42 | 0.50 | 0.07 | 0.26 | 8.25*** |
| Drug violations | 0.32 | 0.68 | 0.11 | 0.41 | 3.91*** |

*Note.* RSHP = restrictive status housing program.
[a]Mental health scores were available for 42 RSHP graduates ($n$ = 42; 23%).
*$p \leq .10$. **$p \leq .05$. ***$p \leq .01$.

incarcerations, lifetime majors), and programming variables (e.g., length of program placement).

Overall, 47.5% of the sample ($n$ = 114) had any type of violation in the 6 months following release. When compared with graduates who did not commit a violation within 6 months, graduates who committed any violation (i.e., either a major or minor) during this time were more likely have more lifetime majors ($p < .01$), minors ($p < .05$), inmate assaults ($p < .01$), and drug violations ($p < .01$). They were also more likely to have been incarcerated previously ($p < .01$). Those who had any type of violation in the 6 months following release were also more likely to struggle while in the RSHP program. When compared with graduates who did not commit a violation within 6 months, those who committed a violation were more likely to have committed an offense during placement ($p < .01$), and had spent more overall time in the program ($p < .01$). The findings are summarized in Table 4.

As shown in Table 5, by 12 months, the majority of participants committed a violation. Specifically, 63.8% of participants ($n$ = 118) had any type of violation in the 12 months following release from the RSHP. As compared with graduates who did not commit a violation within 12 months, graduates who committed any violation after graduating from the RSHP were more likely to have been incarcerated previously ($p < .01$), and have more have more lifetime major violations ($p < .01$) and minor violations ($p < .01$). Consistent with the 6 month findings, those who struggled in the RSHP were more likely to have a violation in the 12 months following release. Specifically, those who spent more time in the program ($p < .01$) and those who committed violations during the program ($p < .01$) were more likely to have a violation during the follow-up. No other statistically significant associations emerged when exploring the differences between violators and nonviolators in the 12 months after graduating the RSHP.

## Discussion

The use of restrictive housing in U.S. prisons can be a divisive issue. But, retreating to camps of whether RH is “good” or “bad” leads to missed opportunities to objectively

**Table 4.** Examination of 6-Month Outcomes by Inmate Characteristics (*N* = 240).

| | 6-month violation | |
|---|---|---|
| | No (%) | Yes (%) |
| Age (*M; SD*) | 32.34; 7.48 | 31.94; 7.33 |
| Race* | | |
| Caucasian | 11.1 | 12.3 |
| African American | 10.3 | 12.3 |
| Hispanic | 75.4 | 64.9 |
| Native American | 3.2 | 10.5 |
| Prior Incarceration (*M; SD*)*** | 0.90; 1.11 | 1.16; 1.34 |
| STG | | |
| No STG status | 34.9 | 25.4 |
| Certified STG | 65.1 | 74.6 |
| GED | | |
| No | 46.0 | 43.4 |
| Yes | 54.0 | 56.6 |
| Mandatory literacy | | |
| No | 30.2 | 38.6 |
| Yes | 69.8 | 61.4 |
| Lifetime offending (*M; SD*) | | |
| Major violations*** | 5.84; 4.44 | 8.18; 6.19 |
| Minor violations** | 6.01; 6.77 | 7.96; 8.22 |
| Staff assaults | 0.36; 0.66 | 0.41; 0.66 |
| Inmate assaults*** | 0.60; 0.61 | 0.75; 0.88 |
| Drug violations*** | 1.17; 1.57 | 1.56; 2.12 |
| Length of time in program (M; *SD*)*** | 139.17; 35.02 | 163.87; 50.77 |
| Program offenses*** | | |
| No | 87.3 | 29.8 |
| Yes | 12.7 | 70.2 |
| *n* | 126 | 114 |

*Note.* Differences across inmate outcomes post program release were tested using a chi-square for categorical indicators and *t* tests for continuous indicators. GED = general education diploma; STG = security threat group.
*$p \leq .10$. **$p \leq .05$. ***$p \leq .01$.

and critically evaluate the practice. Theoretically informed outcome evaluations are virtually nonexistent, and the added difficulty in gaining access to this population will make it challenging to complete evaluations in the future (Harrington, 2015). Equally important, there is limited information on alternative approaches to RH for handling inmates for which it may be reserved for in the future: those who have engaged in serious violence within the institution. Taken altogether, these limitations (and others) led Frost and Monteiro (2016) to lament, "After a thorough review of the extant literature, it is clear that, in 2015, the answers continue to be few and the questions many" (p. 23).

**Table 5.** Examination of 12-Month Outcomes by Inmate Characteristics ($n$ = 185).

| | 12-month violation | |
|---|---|---|
| | No (%) | Yes (%) |
| Age (*M; SD*) | 33.61; 8.14 | 31.86; 6.97 |
| Race | | |
| Caucasian | 4.5 | 10.2 |
| African American | 10.4 | 13.6 |
| Hispanic | 80.6 | 66.1 |
| Native American | 4.5 | 10.2 |
| Prior incarceration (*M; SD*)*** | 0.88; 1.02 | 1.15; 1.36 |
| STG | | |
| No STG status | 32.8 | 25.4 |
| Certified STG | 67.2 | 74.6 |
| GED | | |
| No | 38.8 | 47.9 |
| Yes | 61.2 | 52.1 |
| Mandatory literacy | | |
| No | 25.4 | 34.7 |
| Yes | 74.6 | 65.3 |
| Lifetime offending (*M; SD*) | | |
| Major violations*** | 6.03; 3.77 | 7.90; 6.19 |
| Minor violations*** | 5.45; 5.47 | 7.66; 8.52 |
| Staff assaults | 0.40; 0.72 | 0.37; 0.61 |
| Inmate assaults | 0.52; 0.61 | 0.70; 0.84 |
| Drug violations | 1.43; 1.73 | 1.39; 1.93 |
| Length of time in program (*M; SD*)*** | 135.51; 31.59 | 159.39; 43.73 |
| Program offenses*** | | |
| No | 89.6 | 39.8 |
| Yes | 10.4 | 60.2 |
| *n* | 67 | 118 |

*Note.* Differences across inmate outcomes post program release were tested using a chi-square for categorical indicators and *t* tests for continuous indicators. GED = general education diploma; STG = security threat group.
*$p \leq .10$. **$p \leq .05$. ***$p \leq .01$.

With estimates of up to 100,000 inmates being held in segregated units in 2014 (Baumgartel et al., 2015; see also Beck, 2015), this absence of reliable information is a significant problem. The purpose of the current work was to determine whether a RH program for violent inmates affected the future behavioral and mental health of inmates. Our work here leads to three broad conclusions.

First, the RSHP implemented by the ADC produced a number of positive future outcomes among program graduates. Specifically, assaults on inmates and staff members were lower 6- and 12-months after graduation as compared with those

time periods prior to placement. These results are consistent with a number of other programs that have implemented alternative strategies to address troublesome inmates within their facilities (see, for example, Chamman, 2016; Heiden, 2013; Raemisch & Wasco, 2015). Indicators of mental health status did increase over the course of the study period; however, this increase was not found to be statistically significant. This is notable given concerns over deterioration of mental health due to isolation (see, for example, Arrigo & Bullock, 2008; Haney, 2003; Smith, 2006). One year after program graduation, five staff assaults and 13 inmate assaults were recorded among 185 program graduates with a 12-month follow-up. These aggregate numbers obscure some particularly notable success stories within the RSHP. For example, one inmate entered the program with 33 lifetime major violations, including six majors in the year prior to the program. He had six lifetime assaults on inmates and one lifetime assault on staff. Furthermore, this individual had not earned his GED or achieved mandatory literacy, and started the RSHP with a mental health score of 3. At the 1-year follow-up, however, he only has one minor violation and his mental health score is now one.

Second, despite the overall positive outcomes among program graduates, we did observe some variation in who could be considered a program "success." Specifically, within the first 6 months of program completion, those who committed any violation were more likely to have spent more time in the program, to have committed offenses while in the program, and to have had more prior incarceration experiences. In addition, these graduates had a higher rate of lifetime institutional offending on measures of major, minor, and drug violations and inmate assaults. And just as there were individuals who performed exceptionally well after the program, there were also inmates who epitomize program nonsuccess. For example, one inmate, who was placed in the RSHP as the result of a group assault on an inmate, had three lifetime majors, all of which occurred within a year prior to the program. At just 6 months after the program, the individual already accumulated two major and two minor violations, including an assault on another inmate and a drug violation. Broadly speaking, individual characteristics of inmates may affect whether RH leads to null, negative, or positive future outcomes.

Third, our work has implications for both theory and practice. We believe that the RSHP of the ADC is representative of a more therapeutic intervention model of RH. Specifically, the program is delivered to high-risk offenders (as evidenced by the lifetime snapshot of institutional behavior of our sample), it addresses criminogenic needs such as antisocial attitudes, and it does so through programming that is delivered in the form of cognitive behavioral therapy. Unfortunately, we lack detailed programmatic information to more squarely ground our analyses in the RNR tradition, and we are unable to document program fidelity or integrity. Future work could provide more stringent tests of the theoretical components of RH, and we encourage scholars to not group all RH programs together, but rather to look at the specific components of the varied RH programs that exist. It is likely that existing mixed findings on whether RH produces negative outcomes is due to variability in the manner in which different RH programs are implemented.

The critical policy implication of our work is that RH, specifically segregated disciplinary housing, can and should be designed in a way that does little further harm to

inmates. Our specific findings also suggest additional policy implications. The RSHP of the ADC has a graduation ceremony that celebrates the accomplishments of all program completers. It is clear, however, that not all program graduates are created equal. Those who struggle to complete the program (e.g., have in-program offenses, take longer to complete) were more likely to engage in future misconduct. Booster sessions for these individuals could be helpful—especially when considering the differences present in the critical 6-month period following graduation. Consistent with principles of effective offender intervention, relapse prevention in the form of booster sessions, are necessary as program effects diminish over time (Cullen & Gendreau, 1989; Gendreau, 1996). In addition, a mentorship program in which successful graduates assist struggling graduates could improve outcomes for both mentor and mentee (see, for example, Maruna, 2001).

Our findings raise a critical question: compared with what? We have no comparison group or counterfactual to isolate the true effect of the program. With that in mind, it is important to consider the major threats to validity of a one-group pretest–posttest design (Cook & Campbell, 1979; see also the discussion in Lovell, Allen, Johnson, & Jemelka, 2001). History effects, such as a change in policy in how misconduct was addressed, could be responsible for observed changes in behavior. Although this may be true, we believe it is unlikely that a major misconduct, such as staff assault, would go unaddressed through official means even with a change in policy. This is also unlikely for any change in mental health assessment. Another concern is statistical regression in which random fluctuations appear to be true changes, especially when lower levels of misconduct may follow especially heightened levels of misconduct that got the inmate into the program. We have addressed this concern in endnote XII, but note that we have a reasonably long follow-up of 1 year in which to track a group of inmates with significant prior institutional records. Finally, maturation is of concern as inmates may simply be growing too old to engage in misconduct, thus making the program appear as if it were improving their behavior. We again note that our sample is high-risk: the average inmate in the sample is in his lower 30's, with seven major lifetime violations and seven minor lifetime violations, and nearly 70% of the sample is suspected of being a member of a STG. To that end, should maturation be a factor, we also could not rule out that it was the program itself that contributed to the inmate's decision to retire from violence in prison.

Restrictive status housing is, at times, an unfortunate necessity in corrections. Just as those who are incarcerated may need to be removed from society, there are those within the prison setting that may need to be removed from the general population. It is possible that this action will be reserved in the future for those who engage in serious violence toward other inmates or staff. The key is to devise a form of RH that does no additional harm to inmates. The principles of effective intervention provide a useful blueprint for accomplishing this difficult task (see Gendreau et al., 2006), however, future research is needed to identify what works best and under what conditions. Our work here suggests that a therapeutic RH may even improve the future behavior of program graduates, and programs that hold more tightly to those principles are likely to produce even more favorable outcomes.

# Appendix

## *Description of RSHP at Arizona State Prison Complex-Florence (ASPC-F).*[13]

*Step 1.* On the first business day after the inmate's arrival, he is provided by the RSHP case manager (COIII) or sergeant a Memo of Expectations and a program matrix that details why he has been placed in the RSHP, what is expected of him, and what incentives will be provided to him upon his advancement through the three-step program. As noted above, the inmate starts this program with the clothes on his back and one book to read if he chooses. The initial step, Step 1, is designed to focus the inmate on his aggressive and assaultive behavior and his need to program. All outside contact such as telephone calls, visits, and television are suspended so the inmate can focus on his interactions with RSHP program staff, group counseling sessions, and the programming material provided to him. The only exception to this restriction is mail.

The inmate is stripped searched, restrained, and provided a two-person escort when he leaves his cell. He is expected to abide by all rules and directives. Infractions will result in a disciplinary violation report and a possible move back to program day one for the inmate. The inmate is assigned to a group counseling session that he must actively participate in once per week, and he is provided a self-study module with a topic issue that has been selected by the case manager for the particular inmate. The inmate has 2 weeks to complete the self-study module. If he fails to follow abide by these expectations, he may be placed on a time-out period and removed from the program housing area. These time-out periods are determined by the treatment team and range from 1 week to 30 days. The inmate is also expected to participate in recreation in the enclosures 3 times per week for 2 hours and to take a shower after recreation. The inmate will be provided a towel during his shower and to exchange his clothing for a clean set. Store purchases are hygiene only.

The inmate will remain in Step 1 for at least 30 days. If he received a disciplinary violation during the 30 days or was on a time-out period, then he must have 30 days free of disciplinary violations for advancement. He must also complete one group counseling program and self-study modules determined by the case manager before he is eligible to advance to Step 2 in the RSHP.

*Step 2.* Inmates at Step 2 are allowed a television (either loaner or their own) so that they can participate in educational TV programming (ETV) and for recreational use after programming has been completed. They are also allowed to have one noncontact visit per month for 2 hr. The minimal amount of time in this step for inmates is 60 days. Store purchases are slightly expanded to 15 dollars, 10 dollars of which must be spent on personal hygiene items. During Step 2, the inmate must remain active in his participation level in the group counseling sessions. He is expected to start indicating that he is understanding the material, the message, and acquiring the knowledge and skills necessary for him to make changes in his thought process and behaviors. He is expected to complete additional self-study or ETV modules selected for him by his case

manager. The inmate must maintain absolute rule compliance while in Step 2. Rule violations may result in dropping the inmate to Step 1 again as decided by the treatment team. Serious rule violations and program noncompliance may result in removal from the program or a time-out period as decided by the treatment team. To advance to Step 3, the inmates must complete all required assignments, abide by all rules, indicate to staff through his demeanor, attitude, behavior, interactions, and statements in group that he is beginning to assimilate the programming material and developing new skills and thought processes.

*Step 3.* Inmates at Step 3 are allowed to make telephone calls to anyone on their approved 20-list. Their store purchases are expanded slightly to 20 dollars, 10 dollars of which must be spent on personal hygiene items. The minimal amount of time in Step 3 is 30 days.

At Step 3, the inmate is expected to be making clear indications to the case managers, sergeant, and RSHP staff that he is gaining a more thorough understanding and knowledge base of the program material being presented and is consisting demonstrating this understanding. His behavior and discussions in groups and to the RSHP staff should be suggesting his understanding of the negative impacts of anger, aggressive actions, and heightened conflict. The team should be seeing some positive change in the inmate at this step in the program.

If the inmate becomes involved in rule violations, then the inmate risks step decreases, time-out periods, or removal from the program. The inmate is expected to actively participate in group and be able to stay on focus during the group counseling period. He is expected to complete additional self-study or ETV modules as determined by the case manager. To successfully complete Step 3, he must be recommended to the treatment team by the case manager as having satisfied the requirements of the program and demonstrated behavior consistent with skills that gained from the program material.

## Authors' Note

An earlier version of this article was presented at the 2016 meetings of the Academy of Criminal Justice Sciences, March/April, Denver, CO.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## Notes

1. Administrative data on restrictive housing (RH), however, are often criticized for underestimating the true number of inmates in this type of placement (see, for example, Naday, Freilich, & Mellow, 2008).
2. Segregated housing may also be used to separate inmates from the general population in

order to provide mental, medical, or other services to the inmate (Frost & Monteiro, 2016).

3. Although the research presented here focuses on individual-level factors, it is important to note that environmental factors such as overcrowding, low staffing, inadequate officer training, program availability, and so on may contribute to institutional misconduct (see, for example, French & Gendreau, 2006; Steiner, 2009; Wooldredge et al., 2001).
4. Restorative justice frameworks provide an additional blueprint for programs seeking behavioral change (see especially M. Butler & Maruna, 2016).
5. The group counseling programs are products of The Change Companies and are described as cognitive and evidence-based programs (The Change Companies).
6. The self-study modules include Making Decisions, Values and Personal Responsibility, Refusal Skills, Attitudes and Beliefs, (Hazelden Publishing) and Anger Management (Substance Abuse and Mental Health Services Administration). The educational television (ETV) modules The ETV modules include Conflict Resolution, Living a Better Way, Commitment to Change, Resources for Change (FMS Productions), Domestic Violence (Altschul Education Group), Victim Awareness (Greystone Educational Program), and Substance Abuse (Hazelden Publishing).
7. Data on 24 program terminations (i.e., inmates removed from the restrictive status housing program [RSHP]) during this time period were also collected. Given the variability in reason for the termination (e.g., charges that resulted in RSHP placement were reversed), these data were collected for informational purposes only and are not included in the analyses.
8. Mental health scores in Arizona Department of Corrections (ADC) are not reviewed on any regular basis unless the inmate is an MH 4 or 5. Instead, certain events lead to a mental health evaluation and score like misconduct, requests for medication, counseling, self-harm attempts, and so on. Thus, it is reasonable to assume that all missing cases for mental health score remain unchanged over the study period.
9. Mental health scores are reviewed within 72 hr of placement in the RSHP. Inmates with a mental health score of 3 or higher are placed in "RSHP at an alternate location with consultation from mental health staff" (Director's Instruction #326, 2014, p. 6).
10. Models were also tested using the outcome values natural log (Thode, 2002), however, there were no differences between the models in terms of significant outcomes.
11. We recognize that *t* tests may be inappropriate for a categorical variable. In light of our findings, at the 6-month follow-up, of 91 individuals with mental health scores at both time points, 10 (11.0%) decreased in mental health, 14 (15.4%) increased in mental health, and 67 (73.6%) stayed the same. At the 12-month follow-up, of 42 individuals with mental health scores at both time points, 10 (23.8%) decreased in mental health, 14 (33.3%) increased in mental health, and 18 (42.9%) stayed the same.
12. A concern is that analyses could be biased in favor of program success given that all graduates in the dataset would have a serious assault in the 6 months prior to the program. Stated differently, all program graduates would have, by definition, a major violation and assault that resulted in RSHP placement, but it was not necessarily the case that all program graduates would have a major violation and assault after program participation. The above analyses were repeated with a dataset that removed the RSHP offense. At 6 months, there was no longer a statistically significant mean difference in assaults on staff. In addition, upon removal of the placement offense, we find that inmate assaults increased in the 6 months following RSHP (0.01 before, 0.05 after; $t = -2.34$, $p < .05$) There was, however, still a statistically significant mean difference for major violations (0.78 before, 0.31 after; $t = 5.34$, $p < .01$) and drug violations (0.18 before, 0.06 after, $t = 3.59$, $p < .01$). At 12 months, again there was no longer a statistically significant mean difference for assaults on staff,

and again there was still a statistically significant mean difference for major violations (1.49 before, 0.58 after; $t = 6.17$, $p < .01$) and drug violations (0.32 before, 0.11 after, $t = 3.91$, $p < .01$). Consistent with the 6-month sensitivity analyses, removal of the placement offense, inmate assaults increased during the total 12-month follow-up period (0.02 before, 0.07 after, $t = -2.54$, $p < .01$). Important to note, however, is that even this approach could bias results—this time in favor of finding no program effect or a worsened effect—given that removing the offense assumes no other misconduct would have occurred during that preprogram period, whereas the post program period does not have this "misconduct free" window. We leave it to the reader to decide what set of results best fits their research or programming needs.

13. Information in this section was taken directly from ADC's RSHP Program Manual (Arizona State Prison Complex-Florence [ASPC-F], 2014).

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