

Segregated Prisoners:
Nature Imagery Project in Prisons as a Program Option
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Abstract

Solitary confinement can be summarized as the state of being alone in a prison cell for 22 to 24 hours a day with minimal human interaction, little to no natural light, property restrictions, visitation constraints, and the inability to participate in group activities and communal meals. Solitary confinement can go by many names; it can be referred to as lockdown, Security or Special Housing Units (SHU), Special Management Units (SMU), administrative segregation, disciplinary or punitive segregation, restrictive housing, or “the hole”. Solitary confinement is utilized for many purposes, primarily for the health and safety of themselves and others. It was first intended as a means of rehabilitation. However, instead, it has contributed to negative psychological and physiological effects on prisoners. There is argument for and against the use of solitary confinement and reformation efforts are being made to reduce solitary confinement. In an attempt to provide programming to segregated prisoners and reduce the amount of time that prisoners are in their cells, various correctional institutions have implemented nature imagery programs to reduce violent behavior and physiological states. Nature Imagery in Prisons Project (NIPP) was the first program of its kind and has laid the groundwork for other correctional institutions to follow. Programs such as this are designed for segregated prisoners and are used as a means of rehabilitation for these individuals as they prepare for their return to the community or to general prison population.

Segregated Prisoners:

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Thesis Statement and Theory

Social learning theory is most associated with Albert Bandura as he integrated principles of both behaviorism and cognitive theories of learning. He suggested that a key element in the development of behavior relies heavily on the social interaction with others. Social learning theory explains how people learn by observing the behavior of others (Kretchmar, 2017). In regards to criminology, criminal behavior is acquired through social interaction, behavior modeling, and it is maintained through continued criminality. Dr. Ronald Akers, along with Robert Burgess, built on Bandura's work and Edwin Sutherland's Differential Association Theory to create a comprehensive theory on deviant behavior. In Dr. Akers' studies of the social learning theory, he stated that people develop motivation to commit crime and the skills to commit crime through the people whom they associate (Kleckner, 2014). People learn new behaviors, values, and attitudes by direct experience and observing other people's behavior through positive and negative stimuli. This theory can apply to deviant behavior in society as well as in prisons. Social learning theory is comprised of four main parts: differential association, differential reinforcement, definitions, and imitation (Kleckner, 2014). Differential association applies to prisoners in that interactions with others who support criminal behavior will likely continue to engage in that behavior. Differential reinforcement is dependent on rewards and punishments for committing certain behavior. If a prisoner is not held accountable for his or her actions, deviant behavior is more probable to continue. Definitions refer to the meanings attached to certain behavior and determining what is right or wrong. Lastly, imitation is

observing and modeling the behavior of others. Prisoners observe others' behaviors and will imitate that individual's behavior based on the outcome (Fox, 2017).

In regards to solitary confinement, prisoners lack social engagement with other individuals, which may increase a prisoner's level of withdrawal. This may also cause an individual to further regress to a mental state of becoming uncomfortable to be around other people, and in some cases, avoiding contact and social interactions with others (Shalev, 2018). This withdrawal can apply to individuals while they are incarcerated as well as when they release into society. Programs that are designed for segregated prisoners, such as nature imagery programs, are a proactive approach in reducing the negative effects of solitary confinement. They provide stimuli that are needed to assist prisoners with positive social interactions, both in prison and in society. Positive behavior changes through program participation can be contributed to positive social interactions as well as through nature viewing.

Viewing images of nature is an attempt to minimize this potential withdrawal while prisoners are housed in solitary confinement. Kaplan's Attention Restoration Theory (ART) suggests that mental fatigue and concentration can be improved by time spent in, or looking at, nature (Garside, 2018). The capacity of the brain to focus on a specific stimulus or task is limited and results in "directed attention fatigue". ART proposes that exposure to natural environments encourages more effortless brain function, thereby allowing it to recover and replenish its directed attention capacity (Garside, 2018). According to Kaplan, the natural environment must have four properties in order to provide this restorative effect: 1) Extent - the scope to feel immersed in the environment; 2) Being away - providing an escape from habitual activities; 3) Soft fascination - aspects of the environment that capture attention effortlessly; and 4) Compatibility - individuals must want to be exposed to, and appreciate, the environment

(Garside, 2018). It is thought that soft fascination plays the key role, with the other three properties enhancing or sustaining fascination. However, it is unclear how much empirical evidence there is to support this theory (Garside, 2018).

Social learning theory, when incorporated as a component of programming, can be a positive influence on rehabilitation and in the reduction of recidivism. Prisoners participate in programs to help prepare them for successful reintegration into society. In an effort to prepare prisoners for a successful reentry into society, educational programs that include prosocial behavior would allow prisoners to gain a better understanding of the consequences of their actions. People learn from observing others' behaviors and the outcomes of those behaviors (Astray-Caneda, Busbee & Fanning, 2011). Bandura's theory of observational learning applies to individuals in prison as well as when these individuals release into society. A prisoner's association with their peers may have been one of differential association which produced deviant behavior. After these individuals release from prison, they may return to the same environment that contributed to their criminal behavior. Social learning theory can help to determine contributing factors to deviant behavior patterns in prisoners to assist with successful reentry into society. Observing positive role models and reducing violent behavior are crucial for rehabilitation.

Introduction

Segregated housing, or restrictive housing, can be seen as a prison within a prison. It is used for the safety of the prison and the public as well as for the protection of prisoners who are deemed as needing separation from others. These particular prisoners could be a threat to the security of the prison for reasons such as disciplinary infractions, gang affiliation, or mental

illness. Prisoners' housing could also be restricted for purposes of protection due to the nature of one's crime or the age of the prisoner. A prisoner's purpose for restrictive housing could overlap into more than one reason as many prisoners have complex situations that have led them to prison.

To imagine what it could be like to be housed in segregation or solitary confinement, close your eyes and picture yourself living in isolation, between four cement walls with only one hour of social interaction and exercise each day; no windows to the outside world; nobody to talk to, just your mind going off into unknown directions. Time passes in slow motion as you count down each day's meals to keep track of time. Negative thoughts and anger begin to surface as depression sets in and anxiety rises. You then begin to think of ways to end your life so that the psychological torture caused by isolation will stop. Your mind continues to deteriorate due to the lack of stimuli needed to function. Now, think of how you would feel if you were released back to society directly following your isolation in segregation or solitary confinement without any preparation for social interactions or tools to succeed.

Instead, turn your imagination to clouds floating by on a sunny day or the sun rising and setting or sounds of waterfalls cascading or birds chirping; the feelings of anger and anxiety leave your body as you begin to relax and your mood improves. Exposure to nature imagery provides numerous physical, emotional, spiritual and mental health benefits, particularly to prisoners in solitary confinement. Nature Imagery in Prison Program (NIPP) allows prisoners in solitary confinement an opportunity to view nature without leaving prison walls. While there are incentive-based programs and step-down programs offered to prisoners in segregation, NIPP and other nature imagery programs focus on behavior modification and reducing sensory deprivation by providing more out-of-cell time as a means of correcting behavior to improve rehabilitation.

Prisoners learn by observing others' actions and whether these individuals are positively or negatively reinforced will determine their behavior. Nature imagery can be seen as a positive reinforcement to modify behavior.

Literature Review

Broad Overview

Solitary confinement can be defined as the state of being alone in a prison cell away from other prisoners (Merriam-Webster, 2017). It can be defined further as the practice of placing a person alone in a cell for 22 to 24 hours a day with minimal human contact or interaction; reduced or no natural light; restriction or denial of reading material, television, radios or other property; severe constraints on visitation; and the inability to participate in group activities, including eating with others (ACLU, 2014a). In 2013, the Department of Justice formed a similar definition, noting that

the terms 'isolation' or 'solitary confinement' mean the state of being confined to one's cell for approximately 22 hours per day or more, alone or with other prisoners, ... [with] limit[ed] contact with others ... An isolation unit means a unit where all or most of those housed in the unit are subjected to isolation (ACLU, 2014b, p. 3)

Some organizations see solitary confinement as a form of torture while others see it as a means of punishment or protection. Specific conditions of solitary confinement may differ between institutions. It is used to punish prisoners who have violated rules, or to isolate those considered too dangerous for general population. It is also used as a preventative measure to protect prisoners who are perceived as vulnerable, such as youths, the elderly, or individuals who

identify as or are perceived to be lesbian, gay, bisexual, transgender or intersex (LGBTI) (ACLU, 2014b).

Solitary confinement can go by many names, whether it occurs in a supermax prison or in a unit within a regular prison. Solitary confinement can be referred to as lockdown, Security or Special Housing Units (SHU), Special Management Units (SMU), administrative segregation, disciplinary or punitive segregation, restrictive housing, or even “the hole”. Recognizing the difference in terminology, the American Bar Association created a general definition of solitary confinement, which it calls segregated housing. The term segregated housing means housing of a prisoner in conditions characterized by substantial isolation from other prisoners, whether pursuant to disciplinary, administrative, or classification action (ABA, 2017). Segregated housing includes restriction of a prisoner to the prisoner’s assigned living quarters. The term long-term segregated housing means segregated housing that is expected to extend or does extend for a period of time exceeding 30 days (ACLU, 2014b).

History of Solitary Confinement

The first experience with solitary confinement in the United States began in the 1780’s at Walnut Street prison in Pennsylvania and replicated at Auburn prison in New York in 1821 and at Cherry Hill prison, also known as Eastern State Penitentiary, in 1829 in Philadelphia (Reiter, 2012; Sullivan, 2006). It was intended to be used as a means of rehabilitation in early prisons (Reiter, 2012). It was based on a Quaker belief that prisoners isolated in cells with only a Bible would use the time to think, repent, pray, and reform (Reiter, 2012). However, many of the prisoners went insane, committed suicide, and could no longer function in society (Reiter, 2012; Sullivan, 2006). This resulted in the first court case involving the effects of solitary confinement.

The Supreme Court findings *In Re Medley* occurred in 1890 in which a U.S. Supreme Court Justice found that a large number of prisoners fell into a semi-fatuous condition; others became violently insane while others committed suicide. There were prisoners who tolerated the conditions better but were not generally reformed, whereas in some cases, prisoners did not recover sufficient mental activity to be of any subsequent service to the community (Reiter, 2012; Sullivan, 2006).

When Alcatraz in San Francisco, California opened in 1934, it housed many of the worst criminals (Sullivan, 2006). Of those prisoners, many of them were housed in what they termed as “D Block”, which was the prisons’ solitary confinement area (Sullivan, 2006). According to Alcatraz Rules and Regulations, newly arrived inmates were kept in quarantine status for 30 days and were not allowed recreation during that period of time (Alcatraz History, 2014). There were 36 segregation cells and 6 solitary confinement cells in D Block (Alcatraz History, 2014). There was one cell in D Block that was called “the Hole” in that it was bare concrete except for a hole in the floor. There was no bed, sink, or toilet. This same cell was also called the strip cell (Alchin, 2017). There was no light, no blankets, and no clothes (Alchin, 2017; Quillen, 2015; Sullivan, 2006). Prisoners were also given limited food, such as bread and water through a small hole in the door (Alchin, 2017; Quillen, 2015; Sullivan, 2006). Conditions on D Block were not as severe as they were in the hole. Prisoners could spend years on D Block although most prisoners would only spend a few days in the hole (Alchin, 2017; Sullivan, 2006). In 1963, the Federal Bureau of Prisons closed Alcatraz due to a number of escaped prisoners and the expense of running the prison (Reiter, 2012). Many of these high-security prisoners from Alcatraz were transferred to a new federal prison in Marion, Illinois which opened in 1963. The Marion prison

later became known as the first control unit, which was a precursor to the modern supermax facility (Reiter, 2012).

It was not until 1983 that the first prison in the United States adopted 23-hour a day cell isolation and no communal recreation time for prisoners (Reiter, 2012). This practice was a result of two correctional officers being murdered by prisoners at the Marion, Illinois prison. The warden called this permanent lockdown in that prisoners were no longer allowed to work, attend programs, or eat in a cafeteria (Reiter, 2012; Sullivan, 2006). This eventually led to other states adopting similar practices in their facilities. Despite the findings *In Re Medley* in 1986, the correctional practice of keeping prisoners in long-term solitary confinement was re-instituted in Arizona at which time the Security Management Unit (SMU) opened in Florence, Arizona. The SMU represented the first supermax prison to maintain prisoners in indefinitely long-term solitary confinement (Reiter, 2012). Three years later, California built Pelican Bay in Crescent City, which was the second supermax prison in the United States. It was known for its Security Housing Unit (SHU), to house only prisoners in isolation (Reiter, 2012). They spent 22 and a half hours a day inside an 8 x 10 foot cell. The remaining one and a half hours were spent alone in a small exercise pen. Conditions at Pelican Bay were later considered to “hover on the edge of what is humanly tolerable” (*Madrid v. Gomez*, 1995, p. 1280). By the 1990’s, supermax facilities were being built in several states. Furthermore, the Federal Bureau of Prisons built its own supermax facility, the Administrative Maximum (ADX) in Florence, Colorado in 1994 which is known as the “Alcatraz of the Rockies” and houses several notorious criminals (Reiter, 2012).

Pros and Cons

Some people claim that segregated housing is a necessary tool for correctional population management to keep prisons safe, while others argue that it is used excessively and has damaging effects on inmates when it involves isolation through solitary confinement (ACLU, 2014b). There are some people's views that solitary confinement makes prisons safer by placing violent offenders in segregated housing (Shames, Wilcox & Subramanian, 2015; ACLU, 2014b). Although segregation is an appropriate housing option for many prisoners, there is little evidence that using solitary confinement or super-max institutions have significantly reduced the levels of violence in prison or that such confinement acts as a deterrent (Frost & Monteiro, 2016; ACLU, 2014b). There is also little evidence that solitary confinement makes the public safer either (ACLU, 2014b). Prisoner releases directly from isolation strongly correlate with an increased risk of recidivism (ACLU, 2014b). It can be difficult for prisoners who have diminished social and life skills due to long periods of isolation, to function in society. Furthermore, from a financial standpoint, solitary confinement can also be seen as a costly form of incarceration (ACLU, 2014b). Supermax prisons are expensive to build and operate and staffing costs can also be much higher (ACLU, 2014b). Weighing the pros and cons, there are reasons for and against the use of solitary confinement. It is a means to prevent prisoners from harming themselves and others, as well as protect prisoners from other prisoners. Solitary confinement can also be used as a place in which prisoners can reflect on their actions. The hope would be that prisoners realize what they have done wrong. Solitary confinement can also be seen as a civil liberties issue based on current standards, hence the need for segregation reform (ACLU, 2014b).

Many prisoners have existing psychological problems or develop mental illnesses that can lead them to harm other prisoners. These prisoners require segregation from other prisoners

while those who seek protection can also be segregated from general population. Those who oppose solitary confinement believe that it can cause prisoners to develop mental health problems or exacerbate existing psychological issues (ACLU, 2014b; Metzner & Feller, 2010). Evidence suggests that segregation can be detrimental to the physical, psychological, and behavioral health of those prisoners placed in segregation (Pacholke & Mullins, 2015). Isolation of mental health prisoners can be seen as inhumane by many critics. However, it can also be necessary for security reasons of an institution.

Reasons for Segregating Prisoners

There are at least three distinct types of segregation: administrative segregation, disciplinary segregation, and protective custody (Frost & Monteiro, 2016). There is some concern surrounding the use of solitary confinement and how it relates to its use with juveniles and the mentally ill, as well as to its use with gang members or members of security threat groups (Frost & Monteiro, 2016). The primary reasons for placing an individual in administrative segregation involve separation from other prisoners for the protection and safety of themselves and others (Frost & Monteiro, 2016). Protective custody can be at the request of the prisoner or required by a directive of management. Prisoners with medical and mental health illnesses who are being monitored by medical and/or mental health staff fill a large portion of segregation units, as well as prisoners who present a substantial or immediate threat to the security of the facility or public safety due to behavior resulting in disciplinary action (Alaska Department of Corrections, 2017).

Administrative segregation is imposed when the continued presence of a prisoner in the general population poses a serious threat to life, property, self, staff, or other prisoners or to the

security or orderly operation of the institution (ADOC Policy & Procedure (P & P) 804.01). According to Alaska DOC (2017), administrative segregation shall not be used as punishment (ADOC P & P 804.01). Administrative Segregation Maximum (AS10) indicates that a prisoner requires the maximum level of supervision available within the facility due to behaviors that have been identified as disruptive to the orderly administration of the facility (ADOC P & P 804.01). This is different than punitive segregation or disciplinary segregation, which is separation from the general population after committing disciplinary infractions involving conduct violations. Regardless of the reason for the separation from general population, segregation in restrictive housing units involves some level of solitary confinement.

Mental Health Prisoners in Segregation

Solitary confinement can be difficult for any individual but it can be even more difficult for those with mental illnesses. Prisoners who remain in solitary confinement for any length of time can experience psychological harm (Metzner & Feller, 2010). According to Chief Judge Thelton E. Henderson (*Madrid v. Gomez*, 1995), putting mentally ill prisoners in isolated confinement “is the mental equivalent of putting an asthmatic in a place with little air to breathe” (p. 1265). The use of segregation to confine the mentally ill has grown to the point that solitary confinement cells can be seen as America’s new asylums; prisons have become *de facto* psychiatric facilities despite the lack of mental health services needed (Metzner & Feller, 2010). The lack of mental health treatment in supermax prisons and segregation units can be problematic due to the extreme security measures in these facilities. Mental health prisoners may exhibit unusual, annoying, or dangerous behavior and have higher rates of disciplinary infractions than other prisoners (Metzner & Feller, 2010). Disciplinary sanctions do not always

correct the behavior and misconduct may continue, and thereby, could keep the prisoner in segregation indefinitely. Mentally ill prisoners are overrepresented in segregation units due to their inability to comply with institutional rules (Adams & Ferrandino, 2008).

Effects of Solitary Confinement

Scientific research has determined that solitary confinement can fundamentally alter the human brain and can have permanent physiological effects (ACLU, 2014b). Their mental state can deteriorate when subjected to solitary confinement (ACLU, 2014b; Metzner & Fellner, 2010). These effects include lack of interaction with the natural world, lack of touch and visual stimulation, and lack of social interaction (ACLU, 2014b). Factors such as stress and depression can shrink areas of the brain, including the hippocampus, the region of the brain involved in memory, spatial orientation, and control of emotions (ACLU, 2014b). Therefore, people subjected to solitary confinement exhibit a variety of negative physiological and psychological reactions, including

hypersensitivity to stimuli, perceptual distortions and hallucinations, increased anxiety and nervousness, revenge fantasies, rage, and irrational anger, fears of persecution, lack of impulse control, severe and chronic depression, appetite loss and weight loss, heart palpitations, withdrawal, blunting of affect and apathy, talking to oneself, headaches, problems sleeping, confusing thought processes, nightmares, dizziness, self-mutilation, and lower levels of brain function (ACLU, 2014b).

In addition to increased psychiatric symptoms, suicide rates and incidents of self-harm are much higher for prisoners in solitary confinement (ACLU, 2014b). These adverse effects are more

significant for those individuals with serious mental illnesses (ACLU, 2014b; Metzner & Fellner, 2010).

The adverse effects of solitary confinement appear to be related to the duration and conditions of confinement (Metzner & Fellner, 2010). Although it has not been conclusively established that short periods of segregated housing produce negative outcomes for the emotional well-being of prisoners, long-term solitary confinement does, especially in relation to the psychological adjustment of prisoners (Arrigo & Bullock, 2007). In reviewing the psychological consequences and adaptations to long-term solitary confinement, conditions of confinement in the SHU at Pelican Bay State Prison in California were found to have extreme social isolation in super-maximum custody units (Arrigo & Bullock, 2007). Prisoners at the SHU were almost completely isolated from human contact and received virtually no opportunity for mental stimulation or activity (Arrigo & Bullock, 2007). These rigid conditions of solitary confinement do not offer individuals an opportunity to engage in social reality testing (Arrigo & Bullock, 2007). Humans rely on social contact with others to test and validate their perceptions of the environment (Arrigo & Bullock, 2007). Therefore, a complete lack of social contact makes it difficult to distinguish between what is real from what is not or what is external from what is internal (Arrigo & Bullock, 2007). Long-term social isolation often leads to social withdrawal. Individuals move from craving social contact to fearing it. Prisoners housed in segregation grow to rely on the prison structure to limit and control their behavior. Consequently, they are no longer able to manage their conduct when returned to the general prison population or when released to the community. Prisoners may resort to acting out as a means of testing their environment (Arrigo & Bullock, 2007).

With an increase in the use of solitary confinement over the last two decades, there has been criticism from legal and medical professionals that the practice is unconstitutional and inhumane (ACLU, 2014b; Metzner & Fellner, 2010). Furthermore, solitary confinement is increasingly being recognized in the United States as a human rights issue (Gottschalk, 2016; ACLU, 2014b). With increased scrutiny in regards to the use of solitary confinement, segregation practices are being reviewed at both the state and federal levels to reduce the length of duration and the amount of time spent in a cell, as well as create a more nurturing environment by having prosocial programming to enhance successful reintegration into the general population and, if applicable, the community (Boghani, 2017; Williams & Hanlon, 2015; ACLU, 2014b).

Segregation Reform

Two primary goals that are being sought in a nationwide attempt to reform segregation practices are reducing the number of inmates in segregation and reducing their length of stay in restrictive housing (Pacholke & Mullins, 2015). In July 2015, President Obama initiated a review into the overuse of solitary confinement across American prisons. The purpose of this review was to gain a better understanding of how, when, and why correctional facilities isolate certain prisoners from the general prison population (Pacholke & Mullins, 2015). Reforming the use of segregation can also be seen as reforming the use of incarceration in general, which requires multiple strategies. The strategies developed focused on reducing the use of segregation in correctional facilities. One strategy involves rehabilitative programming for segregated prisoners, such as the use of structured step-down programs and specialized programming for prisoners in segregation. These rehabilitative programs give segregated individuals an

opportunity to change their behavior by participating in programming and practicing pro-social interactions with others. The goal of rehabilitative programming for segregated prisoners is to better oneself for a successful transition back to general prison population or reentry into society. Aside from step-down or incentive-based programs, there is one program that has shown positive results in participating segregated prisoners. That program is the Nature Imagery in Prisons Project (NIPP). It brings nature inside the prison walls and has expanded to several correctional facilities in the United States. It is a step forward in the direction of segregation reform and rehabilitation.

Segregation reform is not only being reviewed at the federal level; it is also being reviewed at the state level. For example, Alaska's Department of Corrections underwent an Administrative Review in 2015 following several high-profile inmate deaths and concerns from lawmakers and the public. One area of review involved solitary confinement in Alaska, which they looked at as being "widely used as a jail within a jail or to keep inmates safe from other inmates" (Williams & Hanlon, 2015). As part of the Administrative Review, a recommendation was made regarding solitary confinement to establish a clear priority to reduce solitary confinement and establish benchmarks of progress. Reducing solitary confinement is compatible with Alaska's goal of reducing recidivism in that inmates who release directly from solitary confinement to the community are at high risk of poor adjustment (Williams & Hanlon, 2015).

This had led the Anchorage Correctional Complex (ACC), through Alaska's Department of Corrections, to work towards making positive changes to its segregation practices by reducing the length of duration and time-in-cell as much as possible while creating a more nurturing environment with pro-social programs to enhance successful reintegration into the general prison population and if applicable, the community. ACC has created its version of the Nature Imagery

Project's Blue Room, which has been renamed the Green Room. The program targets prisoners in its segregation housing unit who have been segregated for long periods of time. Prisoners in segregation for current disciplinary infraction violations have yet to be eligible for the Green Room.

The Nature Imagery in Prisons Project (NIPP) at SRCI not only has reduced disciplinary referrals of prisoners, but it has also shown to have positive effects on correctional staff. It is a cost-effective approach to prosocial programming for segregated prisoners and it is also a positive step towards reducing and reforming the use of solitary confinement. Like any change, there is likely to be some resistance and skepticism about the program. However, based on the success of other nature imagery programs in prisons, program administrators are confident that Alaska's Green Room program will be equally successful.

Programming for Segregated Prisoners

Rehabilitation of prisoners in solitary confinement takes time. Self-betterment programs involving education, behavior change, and anger management are rehabilitative options that assist with progressing to general population or releasing to society. Although prisoners in segregation have limited programs as opposed to those prisoners in general prison population, there are few programs that have been developed to target segregated prisoners, giving those individuals unique opportunities for rehabilitative programming that are not available in general population. In an attempt to provide program options to those individuals in restricted housing, a step-down approach has been developed in various correctional facilities. Step-down programs are a structured means of providing prisoners with increased opportunities to have contact with other individuals outside of their cell while they receive reentry-focused programming in a

segregated setting. Step-down programs are also referred to as Intensive Management or Behavioral Management programs (Metcalf, H., Morgan, J., Olicker-Friedland, S., Resnik, J., Spiegel, J., Tae, H. Tae, H., Work, A. & Holbrook, B. (2013). They tie a prisoner's release from segregation to the completion of certain goals, such as behavioral plans or classes, and generally require that prisoners remain in the program for six months to a year. These prisoners are required to participate in order to return to general population (Metcalf, et al, 2013).

Alger Correctional Facility in Michigan implemented a step-down or incentive program called Incentives in Segregation as a means to motivate prisoners to demonstrate appropriate behavior (Chammah, 2016). The program consists of stages in which prisoners start at stage two of six so that each prisoner would have something to lose (Chammah, 2016). These individuals would begin by receiving a piece of recreational equipment for his hour of recreation each day. Stage three consists of crossword puzzles and stage four includes a television and one 15-minute phone call per month. Prisoners were allowed two phone calls in stage five and stage six involves approval to return to general population. The two primary ways to advance through the stages involve good behavior and writing essays (Chammah, 2016).

Virginia Department of Corrections (DOC) also offers a step-down program at Red Onion State Prison for its Administrative Segregation prisoners by partnering science with corrections with the use of evidence based practices (Clarke, 2012). The program required a change in prison culture before the implementation of this program. This culture change involved correctional staff as well (Clarke, 2012). The next stage was to assess the prisoners during the intake process and, based on the individual needs, the prisoners were placed in either the Intensive Management (IM) sub-group or the Special Management (SM) sub-group. Prisoners were housed by sub-group as well as participate in programming within the sub-grouping

(Clarke, 2012). It is the goal of Virginia DOC that no Administrative Segregation prisoner be released directly from segregation without the opportunity for re-entry preparation (Clarke, 2012).

Lastly, Alaska created a step-down program at Goose Creek Correctional Center for Administrative Segregation '10' prisoners (AS10). These segregated prisoners require maximum security as they are a threat to the security of the facility, to learn and practice positive behavior through cognitive, educational, and psychological programming (Alaska Department of Corrections, 2017). Prisoners also get the opportunity to progress to lower security classifications upon completion of the program (Alaska Department of Corrections, 2017). The program began in December 2013 and it is a volunteer program that requires a 12 - 14 month commitment from the prisoner (Alaska Department of Corrections, 2017).

Nature Imagery Program

Because segregated prisoners do not have access to outdoor areas, scenes of nature have become an alternative for these individuals to experience nature inside prison walls. In doing so, staff at Snake River Correctional Institution (SRCI) initiated the Nature Imagery Project in Prisons (NIPP) (Oregon Youth Authority, 2016). The program was initiated in 2013 with the collaboration with Dr. Nalini Nadkarni, a professor in Biology from the University of Utah (Nadkarni, 2017).

Nature imagery in prisons is another approach to reducing the adverse effects on prisoners in solitary confinement. Patricia Hasbach, Ph.D, who is the clinical psychotherapist involved in the intervention, stated that nature is needed for individual's physical and psychological well-being (Hasbach et al., 2016). However, many individuals are living in

environments that are removed from nature such as hospitals, assisted living centers, and correctional facilities. In 1984, psychologist Roger Ulrich compared the health and emotional outcomes of surgery patients between two groups: one with a view of trees outside their windows and the other with just a concrete wall (Nadkarni et al., 2017). Those with the nature view reported lower stress and anxiety and needed significantly fewer days of hospital recovery than those with the wall view (Nadkarni et al., 2017). This study led to the initial research in showing that access to nature imagery can profoundly reduce stress, irritability, anxiety and aggression (Nadkarni et al., 2017). Although direct contact with real nature is most effective, studies have shown that even indirect nature exposure can provide temporary relief from psychological stress in daily life (Shulman, 2016). Not only is it shown to reduce stress, exposure to nature has also been shown to reduce violence and aggression as well as mental fatigue and improve psychological states, problem-solving ability and cognitive skills (Hasbach et al., 2016; Shulman, 2016). Bringing nature imagery to prisoners in segregation has been a beneficial means in reducing violence and improving behavior (Hasbach et al., 2016).

SRCI houses more than 500 male prisoners in their Intensive Management Unit (IMU), which is their restrictive housing unit. The intervention was tested in one cellblock (IMU-E), which houses 48 prisoners (Nadkarni et al., 2017). This cellblock is split into two sides, E-A and E-B, with identical layout on each as well as similar age ranges and security risk of prisoners, IMU stay duration, exercise equipment, duration of exercise periods, officer and staff members, and security procedures (Nadkarni et al., 2017). Both E-A and E-B prisoners also received dialectical behavior therapy (DBT), a modified form of cognitive behavioral therapy for the treatment of emotional stability, self-harming behavior, poor impulse control, and anger management (Nadkarni et al., 2017).

Prisoners on IMU were allowed 45 minutes per day to exercise. Each IMU offers two sets of indoor and outdoor exercise rooms; one set on each side of the unit. Prisoners alternate between the outdoor and indoor exercise rooms, rotating every other day. During their indoor rotation, prisoners from E-B were offered the chance to view projected videos (Oregon Youth Authority, 2016). Staff at SRCI installed a projector four meters above the floor to project a nature video with sound onto the upper part of a wall of the specified IMU recreation room (Oregon Youth Authority, 2016). Prisoners on the E-B side began watching nature videos whereas prisoners on side E-A did not view nature videos (Oregon Youth Authority, 2016). Prisoners could choose from 38 projections, with or without sound. Some of the videos had classical music and some had the sounds of the nature images. They were allowed the choice of viewing a video or choosing not to have the projector on during their exercise time in the indoor room (Oregon Youth Authority, 2016). Nature imagery videos were gathered by prison staff in which topics included nature scenes such as ocean waves, forests, beaches, deserts, and other biomes (Shulman, 2016). The recreation room with the projector was painted a light blue color and became known as the Blue Room (Nadkarni, 2017). In a few cases, time in the Blue Room was offered at the discretion of an officer to calm an agitated prisoner. Videos were never withheld as a punishment (Nadkarni, 2017).

Data gathering and review occurred following the first year of the intervention implementation date (Oregon Youth Authority, 2016). One component of the research reviewed whether there was a relationship between NIPP participation and a reduction in person-day rates of disciplinary referrals (PDRDR) (Oregon Youth Authority, 2016). Two analytical methods were used to estimate the effects of NIPP on disciplinary referrals. The first one is the Chi-square goodness-of-fit. This analysis method determined whether the person-day rate of PDRDRs that

prisoners received changed in association with the NIPP implementation. The second method is the Multiple Linear Regression. The regression estimated the strength of the association between NIPP and PDRDRs while controlling for variables associated with risk of having high PDRDRs while in the IMU (Oregon Youth Authority, 2016). Performing both of these analyses, results suggest that showing nature videos is an effective method to reduce disciplinary referrals among IMU inmates (Hasbach et al., 2016). Researchers found that prisoners who watched nature videos committed 26 percent fewer violent infractions. This is equivalent to 13 fewer violent incidents over the year, “a substantial reduction in real world conditions since nearly all such events result in injuries to prisoners or officers” (Post, 2016).

SRCI investigated the effects on mood and attitude by assessing voluntary interviews and surveys of 27 randomly selected prisoners, taken before and after 12 months of video exposure (Nadkarni et al., 2017). They also conducted individual voluntary interviews and surveys of six staff members who worked in IMU-E to determine their perceptions of this intervention on prisoners and their own workload (Nadkarni et al., 2017). Other methods of data collection included pre- and post- video viewing PANAS tests (Positive And Negative Affect Schedule) to evaluate prisoner mood, direct observation of prisoner behavior in the recreation yards of both A and B side, and case study semi-structured interviews of six prisoners. Using the PANAS, there were no significant differences found in self-reported emotions of prisoners immediately before and after their time in the exercise room. However, inmate surveys and case study interviews with inmates suggested that negative emotions and behaviors such as aggression, distress, irritability and nervousness were reduced following the viewing of videos and last several hours post-viewing (Shulman, 2016). Results of researcher observations and self-reporting via inmate surveys involving prisoner activities indicated that prisoners spent about half their time watching

nature videos in the Blue Room in E-B (45 percent from researcher observation and 48 percent from self-reports) and they spent about two-thirds as much time exercising than those in E-A (Hasbach et al., 2016). All six staff members stated they observed less violent behavior, fewer incidents of forced extractions, and fewer angry outbursts by prisoners (Hasbach et al., 2016). Also, nearly 70 percent agreed that the intervention affected their relationships with prisoners in a positive way (Nadkarni et al., 2017). Staff members and their peers started out skeptical about offering nature imagery to prisoners but later recognized it as a potentially effective tool (Nadkarni et al., 2017).

Like any study, there are also limitations with the Nature Imagery Project in Prisons. First, because prisoners were deprived of social stimulation, the presence of outside researchers (mostly female) could have influenced them to provide biased information (Nadkarni et al., 2017). Secondly, it was observed that a reduction of 10 to 20 percent of prisoners elected to watch videos over the year-long course of the project (Nadkarni et al., 2017). Lastly, it could not be determined whether viewing other types, such as non-nature, videos would have similar effects at reducing stress (Nadkarni et al., 2017). Overall, the positive results of NIPP outweigh the negative effects of restrictive housing.

Not only has it reduced negative emotions, the majority of staff viewed their workload as easier or the same compared to time before the intervention. Results suggest that providing nature imagery may be a low-cost approach to reducing violence and negative emotions, and promoting mental health among inmates, thereby creating a safer living and work environment for inmates and prison staff (Nadkarni et al., 2017). Due to the program's success in also reducing disciplinary referrals, NIPP has expanded to Washington Correctional Center in Shelton, Washington where they kept the name Blue Room and offers the program to its male

prisoners housed in its Intensive Management Unit (IMU) (McCoy, 2015). Following Oregon's original nature imagery program at SRCI, Oregon also implemented a similar nature imagery program at Coffee Creek Correctional Facility (CCCF) for female prisoners (Oregon Department of Corrections, 2015). However, there are minor differences to the viewing experiences. SRCI uses a projector in a designated room whereas CCCF uses a television and headphones for viewing (Oregon Department of Corrections, 2015). Aside from Washington and Oregon, various correctional institutions have implemented nature imagery programs based on the positive results of the original nature imagery in prisons project.

As of August 2017, several other states have either implemented nature imagery programs in their prisons or have them in development stages. Such states include Florida, Alaska, Utah, Wisconsin, and Nebraska (Trivett, 2017). Florida began a nature imagery pilot program, named the Scenic Room project, at Lowell Annex for female prisoners and at Suwannee Correctional Institution and Dade Correctional Institution for male prisoners (Jones, 2017). Alaska's nature imagery program is called the Green Room and was implemented at the Anchorage Correctional Complex (Boots, 2017; Hillman, 2017). The program is offered to male prisoners who are housed in segregation for mental health reasons or for protective custody. The designated room is painted green and has a large flat screen television with a sound bar to allow the prisoner to get completely immersed in the nature video (Boots, 2017; Hillman, 2017). Utah's nature imagery room is located in the Olympus mental health facility at Utah State Prison. The room has a painted mural of mountains, a lake, animals and trees, and is located in the Alpha section for its mental health prisoners (Utah Department of Corrections, 2017). It is said that Wisconsin and Nebraska each plan to open their own version of the Blue Room. However,

specific information has not been obtained as to their progress and anticipated dates of implementation.

NIPP has gained high levels of media attention due to its positive results on prisoner behavior as well as correctional staff attitudes and work performance. It is a low-cost, low impact intervention that is helpful in reducing disciplinary referrals, violent behavior, and physiological states, while increasing connections with nature. Nature may be the key to rehabilitating segregated prisoners.

Rehabilitation

Many people may think of prisons as just a place to house criminals who are incarcerated, depriving them of their freedoms while serving their sentences, but the concept of imprisonment is also intended to rehabilitate the prisoners as well. Efforts have been made to provide prisoners with program opportunities for rehabilitation that include educational, social, employment, substance abuse, and religious programming. Rehabilitation of prisoners can be a difficult process and can take time. There are prisoners who participate in programs which give them a better opportunity to succeed and to become law abiding citizens whereas others may learn new ways to commit crimes from other prisoners and become more deeply involved in crime. Therefore, one approach to consider when determining appropriate candidates for programming is to prioritize prisoners for rehabilitation services based on their receptivity and motivation to change rather than their risk for recidivating (Goldstein & Gabriel, 2016). Limited movement out of the restrictive housing unit could instill a greater sense of community and acceptance for program purposes as prisoners share common goals of change. Prisoners should not release in worse condition than they were when they came in. Research shows that the use of solitary

confinement means that many prisoners return to their communities after extended periods in isolation with diminished social and life skills (ACLU, 2014b).

Statistics show that prisoners who have spent time in solitary confinement are more likely to reoffend than those who serve their sentence in prisons' general population (Tsui, 2017). Two studies looked at the relationship between solitary confinement and recidivism by comparing the outcome of prisoners in supermax prisons with similar prisoners in general population. David Lovell's study revealed that prisoners who were housed in supermax that released directly to the community showed significantly higher felony recidivism rates than those prisoners in general population (Tsui, 2017). It also revealed that prisoners who released directly from supermax to the community committed new offenses sooner than super-max prisoners who left super-max three months or more before prison release (Lovell, Johnson & Cain, 2007). Another study tested the competing hypotheses about the effects of supermax housing on three-year recidivism outcomes. Evidence was found that supermax incarceration may increase violent recidivism but that no evidence was found regarding the effect of the duration of supermax incarceration or the recency of such incarceration to the time of release into society (Mears & Bales, 2009).

The effects of keeping a prisoner in segregation throughout the prisoner's incarceration without any form of rehabilitative programming can also have a devastating outcome. For example, in 2013, the director of Colorado Department of Corrections (DOC) was murdered by a man who was released directly from administrative segregation to the community (Gottschalk, 2016). As a result, Colorado DOC implemented measures to reduce the use of solitary confinement as well as designated three penal facilities for the treatment of prisoners with mental illnesses. In 2014, they also joined legislatures to ban the use of restrictive housing for prisoners with mental illnesses, except under extraordinary circumstances (Gottschalk, 2016).

Conclusion

As stated previously, extended periods of isolation correlate to an increased risk of recidivism. These extended periods of isolation can also be contributed to psychological and physiological issues, making it difficult for a prisoner housed in segregation to participate in programming. There continues to be more emphasis placed on rehabilitative programming for prisoners in solitary confinement, allowing these individuals an opportunity to interact with others. While other programs designated to segregated prisoners have been successful in preparing an individual for release from segregation, nature imagery programs have shown to modify prisoners' behavior to allow them to participate in other programs to assist in their rehabilitative efforts.

Each institution that has implemented their own version of NIPP is likely to have encountered challenges with their program and may have made operational changes to meet the needs of their institution. The type of prisoner population that is targeted for the program could affect the success and operations of the program. For example, since the implementation of Alaska's Green Room at ACC, it has been observed that the target population is limited in a pretrial correctional institution as opposed to a prison setting. The prisoner population is much more fluid in a pretrial setting, which affects who is available to participate, staff demands with escorting prisoners to the designated location, and prisoners' interest in continuing the program. Prisoners who are eligible for the Green Room are those individuals who are housed in segregation for protective custody and mental health issues. It has not been expanded to those prisoners who are in segregation for disciplinary reasons, although these individuals could also benefit from the Green Room. There have been prisoners at ACC who have been interested in the program but other prisoners in the segregation unit would speak negatively about the

program and those individuals who were participating would eventually stop expressing interest in the program. However, for those prisoners who have participated in the Green Room, there has been an increased level of satisfaction by each prisoner who has viewed the nature videos. This was determined by prisoners' self-report of their mood and attitude prior to viewing nature videos and immediately following nature viewing. It appears as though ACC's nature imagery program lacks some consistency with regular participation as well as with interested participants which could also be caused by a lack of buy-in from correctional staff as well. ACC's program still has the potential to further succeed once its challenges are addressed to include expanding its target population.

It is unknown what challenges other nature imagery programs may have encountered aside from the challenges that SRCI had and what has been observed at ACC. No other statistical data was found as to the success of other nature imagery programs. However, the other nature imagery programs take place in prison settings where the prisoner population is typically more stable in movement than the population at an intake or pretrial institution. This is one of many factors that play a part in the programs' success. In comparing nature imagery programs at SRCI and ACC, other factors that contribute to its success include additional treatment for participants and the various methods of measuring its success and satisfaction. For example, NIPP participants at SRCI were involved in cognitive behavioral therapy whereas participants at ACC's Green Room do not currently have access to additional treatment while they are in segregation. SRCI also has multiple methods of measuring its success and satisfaction through surveys, interviews and tracking the amount of disciplinary referrals its participants receive. ACC's primary means of tracking is through prisoners self-reporting their mood and attitude before and after viewing. Lastly, it is presumed that SRCI's success could also be contributed to

its target population which consists of the most intensely-managed prisoners at their institution as opposed to the more administratively-segregated prisoners at ACC. The intensely-managed prisoners would benefit the most from nature imagery in reducing disciplinary referrals and therefore, increasing their opportunity to participate in programs. Those who have further to go could benefit the most.

Benefits of goal-oriented programs for segregated prisoners are two-fold. These programs set goals for prisoners to work towards which is rewarding to these individuals when their goals are achieved. It gives these prisoners the confidence and motivation to make positive change in their lives. By working towards these goals, prisoners are improving their behavior which could lead to their release to general prison population and allow for more opportunities to further program.

Although, nature imagery programs are intended to focus on behavior modification and reducing sensory deprivation, the primary objective may vary with each program as each program is unique in its own way. The success of each program will vary depending on each institution's main objective and its progress should be measured through behavior changes of individual prisoners who participate in the program. Whatever the objective may be, it is an opportunity for more out-of-cell time to ultimately rehabilitate prisoners through positive social interactions.

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