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From orange to blue

How nature imagery affects inmates in the “Blue Room”

By Dr. Nalini M. Nadkarni, Lance Schnacker, Patricia Hasbach, Tierney Thys and Emily Gaines Crockett

Wallace, an inmate at the Snake River Correctional Institution (SRCI) in Oregon, was shackled at the wrists and held by two officers in the Intensive Management Unit (IMU) as he prepared for his hour of exercise. Thinking back to that morning, when he received an upsetting message from his father, he began feeling agitated and angry.

“I want to see the wilderness video, number 28,” he said to the officer in the control room, as the blank white cinderblock walls of the cellblock surrounded him. He then proceeded to what is referred to as the “Blue Room,” the unit’s exercise room, which had a projector mounted on its north wall. By the time the officers removed his cuffs, the video he had requested was playing, projected across the south wall — painted a light blue — which served as a giant screen. Wallace, in the solitude of the room, surveyed images of waterfalls and forests as he did his pull-ups. After exercising, he watched the wilderness scenes, which brought back childhood memories of times when his father taught him to camp and hunt in the mountains of Utah. Sounds of falling water cancelled out the noise of inmates yelling across the hall. For that short time, the presence of nature scenes brought him calm, the kind that nearly always accompanies people in the presence of nature. After his allotted time in the Blue Room, that emotion remained inside of him, long after he returned to his small cell.

Wallace’s experience — watching nature videos in the exercise room of the restrictive housing cellblocks — was part of a study done to explore how the sights and sounds of nature might reduce stress, anxiety and violence that characterize the living environment of inmates and the working environment of staff and officers in solitary restrictive housing cellblocks. The SRCI study has resulted in multiple correctional centers adopting this unique visual initiative.

Placing inmates in restrictive housing or IMUs, isolated from human contact, is mainly used either as a form of punishment for violations of prison regulations or as protection for vulnerable inmates. This has become one of the most contentious aspects in corrections, with scrutiny from

groups that range from the U.S. Supreme Court and correctional administrators to social justice organizations all around. Some view the practice as a valid and necessary way to maintain discipline in a violent environment. Others see it as an incubator for madness that borders on torture, especially for juvenile offenders. Multiple studies have suggested that the practice causes or worsens an array of mental disorders, including anxiety, anger, self-harm, obsessive thoughts and psychoses.¹

Restrictive housing cellblocks are considered more dangerous and stressful to staff than general prison conditions. These cellblocks are known to induce anxiety and depression, which can result in increased sick leave, more medical care and reduced work performance.² These units cost more to build and operate than general prison facilities.³ Although prison administrators have attempted to improve conditions through systematic contingency management, written behavior plans and removal of inmates with serious mental illness,⁴ these inmates continue to exhibit violence, depression and antisocial behavior, and the stress levels among inmates and officers still remain high.

Most studies on the negative aspects of restrictive housing have focused on the effects of social isolation — that is, the reduction or severing of contact with other humans. But another attribute of restrictive housing is the near total absence of inmate access to nature, living things and the natural environment, including plants, animals, wind, rain and full sunlight. Though the denial of nature to inmates potentially serves as a deterrent to violating prison rules, it may also result in negative behavioral effects that could be avoided by providing access to nature or nature imagery.

This idea comes from another venue in which nature is almost totally absent: the sterile rooms of hospitals. There, patients may spend days or weeks in recovery, and due to fears of infectious microorganisms, they even ban potted plants. However, 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. Those with the nature view reported lower stress and anxiety and needed significantly fewer days of hospital recovery than those with the wall view.⁵ That study led to a body of research showing that access to nature imagery can profoundly reduce stress, irritability, anxiety and aggression. This effect is especially strong in venues where little ambient nature exists, such as nursing homes, offices with windowless cubicles and military barracks.⁶ Although direct contact with nature is most effective, indirect nature exposure (e.g., a window,

book, sound recording or photograph) can provide temporary relief from psychological stress in daily life, producing a micro-restorative experience.⁷

In 2013, a research team, consisting of a scientist, a science educator, a psychologist, a science media expert and a correctional statistician, initiated the Nature Imagery in Prisons Project (NIPP) to investigate whether exposure of inmates to nature imagery might create a safer working environment for officers and staff, and whether that would help regulate and improve mood and behavior of inmates in restrictive housing cellblocks. The team, based at the University of Utah, collaborated with officers, behavioral health staff and administrators at SRCI to compare the mood and violent infractions of inmates who viewed nature films with those who did not, as well as officer and staff responses to this practice.

The study

SRCI houses more than 500 male inmates in restrictive housing (IMU) in its multi-security level cellblocks in Ontario, Oregon. The intervention was tested in one cellblock (IMU-E), which houses 48 inmates. 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 inmates, IMU stay duration (over 60 percent are held there for seven months to three years), exercise equipment, duration of exercise periods (45 minutes, four times/week), officer and staff members, and security procedures. SRCI began providing nature videos to inmates only in the E-B indoor exercise room in April 2013; however, inmates on side E-A did not view films. The cost of the video projector and installation (not including staff time) was about \$1,500.

During this study, inmates had a choice of 38 different nature videos, with content including images of diverse habitats (e.g., oceans, forests and rivers), aquarium scenes, views of Earth from space and cloud fly-through shots. After inmates selected which video they wanted to watch, officers in the control room started and stopped the videos so they could verify it was running correctly on a separate monitor. On occasion, officers could use their judgment to place an E-B inmate they perceived as being agitated or troubled in the exercise room with a nature video outside of his scheduled exercise time, using this as a calming intervention. Once the study ended, the research team evaluated the results in a variety of ways, comparing behavior, mood and attitudes before and after 12 months of viewing videos.

To examine the behavioral effects of this content viewing, inmate disciplinary referrals (DRs) for violent infractions of inmates on the cellblock

The studies found that inmates who viewed nature videos committed fewer violent infractions than those who did not view the films.

side with videos versus the side without videos were tallied from prison records and statistically compared using methods described in a research brief from the Oregon Youth Authority.⁸ SRCI investigated the effects on mood and attitude by assessing voluntary interviews and surveys of 27 randomly selected inmates, taken before and after 12 months of video exposure. SRCI also conducted individual voluntary interviews and surveys of six staff members who worked in IMU-E to determine their perceptions of this intervention on inmates and on their own workload.

Outcomes and results

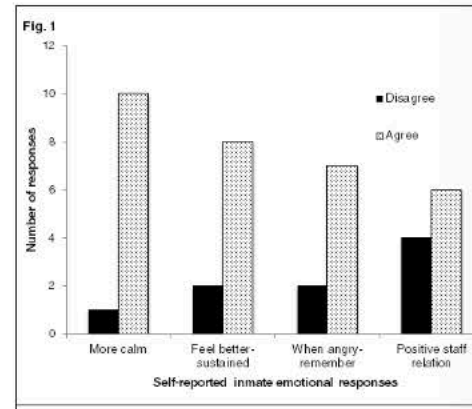
Prison inmates

The studies found that inmates who viewed nature videos committed fewer violent infractions than those who did not view the films. Statistical analysis revealed that if both sides of the IMU were at full capacity for the periods before and during the nature video intervention, unit E-A (no videos) would have had 45 DRs prior to the intervention and 52 DRs during the activities (an increase of seven). However, the E-B (videos available) would have had 57 DRs in the pre-period and 51 DRs in the post-period (a decrease of six). This is equivalent to a 26 percent lower rate of violent infractions in the unit where inmates watched nature videos during the year. This reduction in violent interactions between inmates, or inmates and staff, represents a substantial impact, as DRs often result in injuries requiring hospitalization, reduced trust and extended time in the IMU.

Surveys of the E-B unit revealed that inmates perceived the nature videos as having an overall positive effect. Most surveys reported that the inmates felt calmer and more sustained; when they did get angry, they could remember their feeling of calm; and they had more positive relationships with the prison staff (see Figure 1). They also gave a high value to the intervention and its effects on themselves, other inmates and their families.

Although inmates in E-A did not view nature videos in their exercise room, most were aware of the videos, due to hearing about them from other inmates or staff members; and when asked if they would like to view the nature videos in their own exercise room, 70 percent said yes.

Figure 1. Inmate responses to nature videos.



On the surveys, the inmates indicated a preference for videos that featured a mix of nature places, including beaches, mountains, oceans and forests. They preferred water, rainforests, places one might go hiking, scenes of animals, places to daydream about and “nothing in particular — something other than four walls.” Analysis of video selections (199 viewings over the year) showed that the most frequently viewed video featured a diversity of landscapes from different countries, cinematography, uplifting music, a mix of animal life, no human presence and scenes with blue skies, abundant light and wide-open scenery. The majority of individuals preferred nature sounds over music or silence.

Prison staff

The surveyed staff members all agreed that the inmates became calmer, with a majority stating that these effects lasted for hours after they saw the videos. Many viewed their workload as easier compared to before the intervention; nearly 70 percent agreed that the intervention affected their relationships with inmates in a positive way; and the majority described their workload as easier or the same as before the intervention and reported that it had a high-to-medium value for the officers, behavioral health staff, upper-level administration and the inmates.

In interviews with prison staff members, most mentioned that they and their peers started out skeptical about offering nature imagery to inmates. However, after several months, they recognized it as a potentially effective tool. By watching for precursor behaviors such as pacing or rocking, staff could offer an E-B inmate time in the nature imagery room to de-escalate behavior and avoid possible disciplinary action. One staff member stated, “The response was amazing because sometimes all it took was 15-20 minutes in the nature imagery area to calm them down and get them back on task” Staff members observed less violent behavior, fewer incidents of forced extractions, fewer angry outbursts by inmates and less self-inflicted injury by inmates. Most comments from staff interviews and surveys indicated pride in taking part in something forward-thinking and potentially effective (e.g., “It makes me proud to be recognized for something positive.”) But other comments reflected skepticism, such as the suggestion that the intervention coddles the inmates (e.g., “mints on the pillows and tucking them in at night”).

Thus, staff and inmates, on average, perceived this intervention as successful at reducing negative emotions, such as irritability and agitation, and providing a calming effect that lasted beyond the viewing period. Nature videos had a positive impact on inmate relationships with staff and enhanced emotional self-regulation. Correctional officers and professional staff associated with the IMU population viewed the intervention as a cost-effective tool that could improve their own safety and also improve inmate-staff communication, as long as staff members are able to recognize the precursors of violent behavior and prevent such behavior by offering access to nature videos. Furthermore, this intervention could become a widely accepted, useful tool in restrictive housing exercise rooms and the general prison population.

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What this means

Finding a way to house people who have repeatedly carried out violent crimes outside and within prison requires multiple approaches and has no simple fix. The negative consequences of isolating inmates from social interactions and nature are increasingly apparent.⁹ As suggested by this study, providing short-term nature imagery exposure for violent offenders who have been sequestered for weeks, months or years without access to nature could be one practical and low-cost method of reducing the stress and violence in that inmate population.

However, this study is not without limitations. First, because the inmates lacked any social stimulation, the presence of outside researchers could have influenced them to provide biased information. Second, no information was researched regarding whether viewing other films (i.e., non-nature films) has similar effects. Nevertheless, many studies have shown that nature imagery is more effective at reducing stress than urban imagery, daytime television or abstract art in a variety of venues.¹⁰ Further research should test other types of visual imagery among prison populations as well as identify which specific elements within the preferred nature videos are most responsible for the inmates’ behavioral changes. Other studies should identify what “dosage” is best suited to improve behavior, which inmates and security levels are most receptive to such intervention, and how to achieve the best measure outcomes.

Staff from state prisons in Nebraska, Washington, Wisconsin, Alaska, Oregon and Utah have instituted, or made plans to implement, this intervention in various security levels of their facilities. These findings from a prison setting, along with studies on the effects of nature on human well-being, suggest that this approach could be applied in other venues that have a deficit of nature — such as mental health facilities, assisted living centers, windowless offices and military barracks — making this intervention in one prison setting a useful tool for other prisons and institutions in society.

ENDNOTES

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