Study Raises Questions About Psychological Effects of Solitary Confinement

by Philip Bulman, Marie Garcia and Jolene Hernon

A small study of administrative segregation surprised researchers with findings that were inconsistent with those from previous studies.

A study of the psychological effects of solitary confinement in Colorado prisons showed the mental health of most inmates did not decline over the course of the one-year study.

The NIJ-funded study assessed the effects of solitary confinement, known as administrative segregation or AS in the corrections field. Researchers evaluated 247 men in the Colorado prison system. The sample included inmates in AS at Colorado State Penitentiary, a "supermax" facility, and two other groups for comparison: the general prison population and residents of San Carlos Correctional Facility, a psychiatric care prison. The sample of inmates was divided into those with mental illness and those with no mental illness.[1] Participants ranged in age from 17 to 59. The ethnic breakdown was 40 percent white, 36 percent Hispanic, 19 percent African-American, 4 percent Native American and 1 percent Asian.

The researchers tested three hypotheses:

- Offenders in AS would develop an array of psychological symptoms consistent with the "security housing unit syndrome," which is characterized by free-floating anxiety, hallucinations, excitability and outbursts.

- Offenders with and without mental illness would worsen over time in AS, but mentally ill inmates would decline more rapidly and have more serious illnesses.
- Inmates in AS would experience greater psychological decline over time than the comparison groups in the general prison population and the psychiatric care prison.

Inmates and staff completed standardized tests at three-month intervals over the course of the one-year study. To participate in the study, inmates had to read and write at a proficient level because the assessments were done using standardized self-administered pencil and paper materials; no clinical psychologist interviewed the inmates. The researchers used 14 tests measuring states such as anxiety, depression and psychosis to collect data. Clinical staff completed the Brief Psychiatric Rating Scale; correctional staff completed the Prison Behavior Rating Scale; and prisoners completed 12 self-report instruments such as the Beck Hopelessness Scale.

None of the hypotheses were borne out by the results of the study. In fact, the results showed initial *improvements* in psychological well-being in all three groups of inmates. Most of the improvement occurred between the first and second testing periods followed by relative stability. Overall, the researchers found that 20 percent of the study sample improved and 7 percent worsened during the study period.

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What Is Administrative Segregation?

Prisoners are placed in solitary confinement, or administrative segregation, for violent or disruptive behavior. AS typically involves single-cell confinement for 23 hours daily; inmates are allowed one hour out of the cell for exercise and showers. Facilities for AS are expensive to build and maintain.

In the Colorado study, the cells were 80 square feet and had 35 square feet of unencumbered floor space. Each cell contained a bunk, toilet, sink, desk and stool. These items were made of metal and mounted on the floor or wall for security.

Each cell had an exterior window through which the prisoner could see the outside and a window that gave a view of the inside of the prison. Neither window opened, so the prisoner could not control airflow.

Prisoners were permitted at least one hour five times a week for recreation, as well as 15-minute showers three times a week. Prisoners were placed in full restraints before being escorted to the "recreation room," a 90-square-foot cell that contained a pull-up bar mounted to the wall but no other equipment.

Inmates received most services at their cell doors, including meals. Mental health clinicians visited at least once a month, and a librarian delivered books and magazines once a week.

At the beginning of their confinement, prisoners were allowed to have one 20-minute phone call and one non-contact visit each month. Privileges could be expanded if prisoners successfully completed behavior modification and cognitive programs.

Challenges of Conducting Research in Prisons

Researchers who study prison life face unique challenges.

Prison is a self-contained environment in which everyone's activity is tightly regulated and monitored. Simply getting access to a prison can be difficult for researchers. Furthermore, prisoners are regarded as a vulnerable population for research study purposes. The Department of Health and Human Services regulations on human subjects protection designate prisoners, along with other groups such as children and pregnant women, as especially vulnerable. The regulations require additional protections for prisoners. It is critical that the consent form state that a prisoner's participation in research is voluntary and will not affect parole or correctional programming decisions.[1] Research subjects must be told of the potential risks and benefits of their participation, and they must receive enough understandable information to make a voluntary decision. Informed consent and voluntary participation are fundamental ingredients of ethical research. Consequently, researchers who want to conduct prison research face heightened scrutiny from institutional review boards.

In addition, in correctional settings, it is difficult to implement rigorous evaluation designs that could isolate the effects of one factor and provide completely comparable groups of inmates for a study, such as randomized trials. As a result, researchers must often rely on weaker, quasi-experimental designs with comparison groups that may not completely rule out competing hypotheses to explain apparent differences and outcomes.

Despite the challenges involved, researchers have completed a variety of studies of prison life, using everything from mailed surveys to personal interviews to obtain information. Having outsiders arrive in a closed environment may in itself affect the perceptions of prisoners about the institutions they live in, and the effects may be larger still for those in solitary confinement. Researchers arriving to interview inmates is a major event in the monotonous routine of prison life, especially for an inmate who is in isolation 23 hours a day. Researchers have examined a variety of factors that could affect their subjects and the research.

One such factor is the Hawthorne effect, in which social and behavioral researchers' interactions with and observation of subjects being studied affects the subjects' behavior. The

the conditions as damaging to the psychological health of prisoners, whereas others have found little evidence of harm.

The researchers noted that their findings might not apply to other prison systems. Systems that have more restrictive living conditions and fewer treatment and other programs may have very different results. Additionally, the researchers noted that the study was limited to literate adult men, and the findings should not be assumed to apply to juveniles, females or illiterate men. Because participation was voluntary and required participants to be literate, the study sample may have excluded some people who would have been more vulnerable to the stresses of solitary confinement, such as those with serious mental illnesses or those who cannot read. Finally, because inmates were not randomly assigned to study groups, the groups — and their outcomes, including mental health outcomes — may not be strictly comparable.

They also noted that AS may have negative effects that were not measured in the study. For example, previous research has shown that inmates released directly from AS to the streets had dramatically higher recidivism rates than those who first returned to the general prison population.[2]

The Colorado study adds to the knowledge base, but it does not resolve the debate about the effectiveness of AS.

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name stems from a study of factory workers at Western Electric's Hawthorne plant in Illinois in the late 1920s and early 1930s. Researchers set out to see what effect, if any, changes in lighting would have on the workers' productivity. They found that regardless of the changes made, productivity increased. They decided that the productivity increased because the workers saw themselves as special participants in an experiment.

Recent examinations of the Hawthorne data question the original conclusions and suggest there was either no effect or a placebo effect.[2] Perhaps the Hawthorne effect was present in the Colorado study of administrative segregation. If such an effect were present, the prisoners might be expected to have a more positive view of their situation by virtue of being study participants.

Additionally, people in isolation might be more inclined to participate in a study simply because it would involve receiving attention from an interviewer.

On the other hand, inmates may be wary of researchers. Establishing trust in order to collect accurate information is a prime concern for researchers, who know that inmates may withhold information or tell researchers only what they think the researchers want to hear.

Notes

1. Some experts believe that prisoners can never give true informed consent because they live in an environment in which they have little or no freedom to make an informed decision.
2. Steven D. Levitt and John A. List, for example, point out that statistical methods available at the time did not account for the impact of a number of other variables — such as the day of the week on which the light bulbs were changed. Levitt and List conclude that there was no "Hawthorne effect" and that the changes in productivity can be attributed to other factors. Levitt, Steven D., and John A. List, *Was There Really a Hawthorne Effect at the Hawthorne Plant? An Analysis of the Original Illumination Experiments,* The National Bureau of Economic Research, NBER Working Paper no. 15016, May 2009, http://www.nber.org/papers/w15016. See also a summary of the research in *The Economist,* "Questioning the Hawthorne Effect: Light Work" (June 2009), at http://www.economist.com/node/13788427.

Notes

1. Placement into AS or general prison conditions occurred as a function of routine prison operations. General population comparison participants included those at risk of AS placement due to their institutional behavior.
2. Lovell, David, L. Clark Johnson, and Kevin C. Cain, "Recidivism of Supermax Prisoners in Washington State," *Crime and Delinquency* 53 (October 2007): 633-656.

For more information:

- Read the final report, "One Year Longitudinal Study of the Psychological Effects of Administrative Segregation," at http://www.ncjrs.gov/pdffiles1/nij/grants/232973.pdf.
- For more discussion of the Colorado study and some of the challenges involved in prison research, see the June 21, 2011, issue of *Corrections & Mental Health: An Update of the National Institute of Corrections* at http://community.nicic.gov/blogs/mentalhealth/archive/tags/Colorado+Supermax+Study/default.aspx. The issue includes nine commentaries about the study, including a response by the study authors.