An Evaluation of CHANGE, a Pilot Prison Cognitive Treatment Program

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Prison violence is a concern in many correctional institutions. The systems management approach (i.e., assigning an inmate to a higher security level) is costly. While there are many different interventions available, cognitive therapies are frequently used to reduce prison violence. A non-voluntary pilot cognitive program (i.e., CHANGE) at a Midwestern prison was evaluated for its impact on official misconduct. One hundred and thirty-six inmates participated in the study. Half were assigned to the group which participated in Phase I of the pilot program, and the other half were assigned to the group which did not receive the intervention. Overall, Phase I of the CHANGE program did not lead to a statistically significant decrease in official inmate misconduct.

During the last several decades, legislatures throughout the United States have focused on creating laws to "get tough on crime." This has resulted in truth-in-sentencing initiatives, increased penalties for crimes, mandatory sentences, parole and good time limitations, and restrictions on court and law enforcement discretion (French & Gendreau, 2006). This approach, however, has directly affected the level of control correctional institutions maintain over their inmate populations due to severe overcrowding and a steady increase of long-term offenders. Another side effect of this punitive approach has been an increase in misconduct by inmates. Research indicates that prison violence in the United States has dramatically risen in the past two decades in terms of the overall level and the rate (Baro, 1999; Maitland & Sluder, 1996, 1998; McCorkle, 1993; Patrick, 1998). Thus, the escalation in prison violence has become a pressing concern for prison administrators who are responsible for ensuring a safe, humane, and secure environment within their correctional facilities (Patrick, 1998; Wright, 1994).

Researchers also assert that nonviolent inmate misbehavior has increased as well (Memory, Guo, Parker, & Sutton, 1999). Both nonviolent and violent infractions have direct and indirect consequences on staff and inmates. Increased infractions can lead to reduced safety for both inmates and staff (Goetting & Howsen, 1986). When inmates fear for their personal safety, successful treatment is extremely difficult to accomplish (Ekland-Olson, 1986), and long term psychological harm is likely to occur (Kappeler, Blumberg, & Potter, 1996; Maitland & Sluder, 1996, 1998). Furthermore, research suggests that offenders released from facilities with high rates of misconduct are more likely to recidivate (Eichenthal & Blatchford, 1997). Staff safety is also compromised and, over the long run, this can lead to decreases in job satisfaction and organizational commitment, higher staff turnover, and higher numbers of disability-related retirements (Goetting & Howsen, 1986). Additionally, it has been reported that responding to major prison misconduct is expensive, costing almost $1000 per incident (Love & Jemelka, 1996). With many instances of major misconducts a year in a typical correctional facility, the cost of misconduct is significant (Baro, 1999). Overall, inmate-control problems contribute to higher operational costs, increased liability, and a greater need for higher security prisons (Goetting & Howsen, 1986; Silberman, 1995; Vaughn & del Carmen, 1995). Therefore, it is critical that empirically validated interventions be implemented that successfully reduce both violent and nonviolent inmate misconduct.

Correctional Responses to Violence and Misconduct

While there are many options, there are two general approaches to reduce prison violence. The first is a systems management approach in which an inmate who is classified as prone to violent behavior is placed in a highly restrictive environment (e.g., maximum security prison) (Coyle, 1987; Wang, Owens, Long, Diamond, & Smith, 2000). Under the systems management approach, the main focus is on organizational issues and management rather than treatment and change of the individual (Ward & Baldwin, 1997). While this approach has been partially successful as a stopgap measure, its long-term impact is in question. There is growing evidence that restrictive prison environments have significant and real negative psychological impacts on the incarcerated person and may even increase future violent behavior once the inmate is released (Irwin & Austin, 1997; Johnson, 1996; Toch, 1977). Additionally, the construction and operation of highly restrictive correctional

institutions are extremely expensive and may not be cost effective when compared to other responses addressing prison violence.

The second approach attempts to change the individual inmates' behavior by introducing a variety of psychological interventions (French & Gendreau, 2006). These psychological interventions include, but are not limited to, behavior modification, aversion, social learning, and cognitive-based therapies (Fox, 1999; Ellis, 1993; Lester, Braswell, & VanVoorhis, 2004; Ward & Baldwin, 1997). Of these, research has shown that cognitive programming is the most promising (Allen, MacKenzie, & Hickman, 2001; Andrews & Bonta, 1998; Baro, 1999; Henning & Frueh, 1996; Lester & VanVoorhis, 2004). Cognitive-based prison therapies started in the 1970s and have become popular in the past ten years (Baro, 1999). While cognitive programs differ from one another, they all share a common goal of altering the offender's thinking processes and skills (Andrews & Bonta, 2003; Henning & Frueh, 1996; Meichenbaum, 1977). According to Baro (1999), "the primary treatment goal is to restructure the offender's thinking patterns or facilitate more prosocial thinking" (p. 467). Cognitive therapy programs are becoming the preferred treatment strategy in juvenile and adult correctional facilities for the following four reasons: 1) they deal with observable behavior, 2) they do not require the hiring of professional staff such as psychologists, 3) they require confrontation of inappropriate behavior, which can occur in a controlled setting, and 4) they have been shown to be highly effective (Andrews, Zinger, Hoge, Bonta, Gendreau & Cullen, 1990; Antonowicz & Ross, 1994; Izzo & Ross, 1990; Lester & VanVoorhis, 2004; Lipsey, 1992; Matthews & Pitts, 1998; McGuire & Hatcher, 2001; Ross & Fabiano, 1985; Wang et al., 2000). It is important to note that not all voluntary-based cognitive-based programs have been found to lead to desired changes. In a study of 50 at-risk high school students, it was reported that a cognitive intervention had no impact on violence avoidance beliefs immediately after the intervention and three months later (Cirillo, Pruitt, Colwell, Kingery, Hurley, & Ballard, 1998)

Components of Cognitive Programming

The ultimate goal of cognitive programming is to teach individuals how to adopt more pro-social attitudes, beliefs, cooperation, flexibility, and an understanding of the consequences of their behavior (Freeman & Reinecke, 1995; Lester & VanVoorhis, 2004; Reinecke, Ryan & DuBois, 1998). Cognitive therapies generally fall into one of two categories (Bush & Bilodeau, 1993; Fox, 1999; Henning & Frueh, 1996; Samenow, 1984, 1989; Yochelson & Samenow, 1976). Cognitive restructuring/distortions programs are geared to changing the person's beliefs and values (Lester & VanVoorhis, 2004). Cognitive skills deficits programs seek to change the thinking process of a person (Lester & VanVoorhis, 2004). Simply put, cognitive restructuring attempts to change thinking errors, and cognitive skill interventions try to change thinking deficits (Baro, 1999). Both types of cognitive interventions attempt to encourage prosocial thoughts and behaviors (Bush & Bilodeau, 1993; Lester & VanVoorhis, 2004). In other words, the major goal of both types of cognitive interventions is the rehabilitation of the offender (Bye & Schillinger, 2005).

Cognitive programs have been effectively implemented in the following criminal justice settings: community corrections, juvenile facilities, adult prisons, and substance abuse programs (Andrews, Zinger, Hoge, Bonta, Gendreau & Cullen, 1990; Bye & Schillinger, 2005; Fox, 1999; Gendreau & Ross, 1979; Henning & Frueh, 1996; Izzo & Ross, 1990;

Kendall & Panichelli-Mindel, 1995; Long, Langevin & Weekes, 1998; McGuire & Hatcher, 2001; Wilson, Bouffard, & MacKenzie, 2005). Although the adult correctional system has been more reluctant to adopt the principles of cognitive programming behind institutional walls, the research suggests that it has been quite effective at reducing recidivism rates of program participants. For example, in 1988, the Vermont Department of Corrections adopted a pilot treatment program based on Yochelson and Samenow's (1976, 1977) model of criminogenic thinking errors entitled the Cognitive Self-Change Program. This program was designed for violent adult male offenders but was later expanded to include nonviolent male offenders (Henning, & Frueh, 1996). Referral to the program was made by the offenders' caseworkers while incarcerated. In their evaluation study of 196 offenders who had completed the program, Henning and Frueh (1996) found that recidivism rates for participants were significantly lower than a comparison group. Other studies have reported that cognitive interventions have led to a decrease in recidivism among offenders (e.g., Little, Robinson, & Burnette, 1993; Ross, Fabiano, & Ewles, 1988). Many cognitive treatment program evaluations for offenders focus on recidivism as the outcome criterion (Baro, 1999; French & Gendreau, 2006, Wilson et al., 2005). Far fewer evaluations have examined the reduction of institutional misconduct among inmates (Baro, 1999; French & Gendreau, 2006). Moreover, the literature mainly focuses on cognitive programs in which the participant volunteered to participate (Prendergast, Farabee, Cartier, & Henkin, 2002). There has been little, if any, research on programs where the incarcerated offender is required to participate.

Cognitive Programming at the Prison Under Study

In 1993, a high security prison in the Midwest began offering a voluntary cognitive program entitled the "Strategies for Thinking Productively" (STP). This program was modeled after the Cognitive Self-Change program developed by Bush and Bilodeau (1993) for the Vermont Department of Corrections. The primary goal of STP was to motivate offenders to change their thinking process so they would avoid anti-social behavior and resolve conflicts in a pro-social manner (Baro, 1999). Specifically, the STP program focused on uncovering existing attitudes and beliefs and showing how these affect their behavior. By understanding the consequences of their behavior, the program strived to teach the inmates how to slow down their thinking so that they can develop more pro-social behaviors and beliefs. One of the basic assumptions of this program was that offenders do not start out with the motivation to change but through an intensive, rigorous cognitive program, they will learn and desire change. The program was designed primarily for "offenders who are deeply, and perhaps aggressively, antisocial" (Bush & Bilodeau, 1993, p. 17). Inmates voluntarily participated in the STP program and were housed in a unit separate from the general population.

The program was divided into three phases where the participant learned the techniques of cognitive processes and change, and then how to implement those skills in everyday life. Phase I lasted for eight to ten weeks. During this time period, groups of 10-15 participants met for 90 to 120 minutes twice a week with two trained staff members. The two staff members served as both teachers and facilitators for the group. Inmates were asked to learn the following skills: basic principles of cognitive self-change, how to develop thinking reports and keep personal journals, be able to identify key thinking patterns which have led to criminal behavior, and be able to identify realistic alternatives and interventions

that can restructure criminogenic thinking patterns (Baro, 1999).

After completing Phase I, participants could enter Phase II. Phase II lasted from six to twenty-four months. Of the inmates who completed Phase I, very few continued on to Phase II (i.e., about 20% volunteered for Phase II of the STP program) (Baro, 1999). During Phase II, participants lived in a separate housing unit reserved for only Phase II inmates. The participants met in groups led by trained staff members for about 90 minutes at least three times a week. During this phase, participants continued to identify thinking errors related to criminal behavior and learned how to correct these errors. A person could not complete Phase II until the successful incorporation of the learned techniques of observing thoughts and feelings, understanding and identifying thoughts and feelings which lead to criminal offending, and using new thinking patterns to reduce these thoughts so to avoid engaging in criminal behavior. The inmate then entered Phase III, which lasted for an indefinite period of time. During Phase III, the inmate reentered general population and received close follow-up and aftercare.

In an evaluation study of the voluntary STP program, Baro (1999) reported that inmates, who had completed at least ten months of the program (i.e., the experimental group), experienced a reduction in inmate assaults and refusals to obey direct orders as compared to those inmates who had volunteered for the program but had not yet received the treatment (i.e., the control group). Likewise, inmates who completed Phase I but had not entered Phase II were less likely to receive misconduct reports for refusing to obey a direct order or assault. In addition, the study revealed that institutional misconducts were reduced even for those inmates who did not successfully complete all parts of Phase I of the program (Baro, 1999).

Due to the success of the voluntary program, a decision was made by the administrative staff at the prison under study to include an involuntary inmate participant component called the Cognitive Housing Approach: New Goals Environment or the CHANGE Program. The CHANGE Program was designed to be administered to those classified as higher security, high-risk problem inmates in the hope of reducing their misconduct and ultimately improving their institutional behavior. The CHANGE program was modeled after Phase I, Phase II, and Phase III of the STP program.

Phase I was an orientation of the basic concepts and techniques of cognitive change (Bush & Bilodeau, 1993). The content described what cognitive self-change was and how thinking errors affected attitudes, beliefs, and thinking patterns. By presenting information on common thinking errors and interventions for change, the inmates were given the tools for self-change. Two methods were introduced for practicing and understanding the material: thinking reports and journals. The first method, thinking reports, was designed to let the inmate observe his own thinking patterns (Bush & Bilodeau, 1993). The inmate wrote a brief objective description of a situation, listing all the thoughts and feelings he could remember that he had at the time of the situation. Next, he would write down his own attitudes and beliefs about the situation (Bush & Bilodeau, 1993). This exercise helped teach the critical cognitive skill of distinguishing between fact and opinion (Bush & Bidodeau, 1993). Once an inmate understood each component of the thinking report, the next step was to identify the thinking patterns that were associated with antisocial or criminal behavior (Bush & Bidodeau, 1993).

The second method used journals to reinforce the identification of thinking errors and analyzing the individual's thinking and behavior. Each inmate kept a journal documenting specific thoughts and their occurrence. Journal entries included thoughts and

feelings about these behaviors. Again the objective was to uncover patterns of thinking, but also to identify cycles of these thoughts. This allowed the opportunity to practice change by controlling these cycles (Bush & Bidodeau, 1993). How to do write and maintain a journal was covered in Phase I. The actual writing of the journal and analyzing the contents of the journal took place in Phase II of the CHANGE program. Besides teaching the basics of how to do thinking reports and journals, class sessions also discussed and practiced social skills. Lessons varied from how to listen to others, understanding and responding to others feelings, and how to deal with anger and frustration. Inmates were then introduced to problem solving skills. Inmates who stayed misconduct free during Phase I were eligible for Phase II; however, if a major misconduct occurred during Phase II, an inmate would return to the Phase I of the program.

Phase II, which met four times a week for one to one hour and fifteen minutes, centered around group interaction and built on the concepts presented in Phase I. Thinking reports and journals were used extensively so that inmates could focus on the recognition of thinking errors and to intervene in their own behavior. Phase II was designed to last anywhere from six months to two years. This stage incorporated group interaction as the vehicle for change. Through the use of thinking reports and journaling with a staff member, inmates could look into their own actions and that of others to uncover patterns of behavior based on feelings, attitudes, and beliefs. Once the inmates were able to identify these patterns, the objective was to learn to control and eventually eliminate the errors (Bush & Bilodeau, 1993). Inmates were randomly assigned to present a thinking report in group sessions. Group members would then discuss the thinking report, expanding on thinking patterns and discussing alternative actions. Based on what was learned in Phase I, the inmates would also compile a journal that was not shared with the group. In this journal, the inmate would keep track of his thoughts, feelings, and attitudes. The inmate would meet once a week with a staff member who would review the journal and discuss the content and preventative intervention strategies. The staff member was a person who had participated in at least three days of cognitive training. Inmates could indicate which staff member they wished as their journaling partner; however, CHANGE program staff made the final decision. If the selection was deemed inappropriate or if the inmate had no preference, the CHANGE staff selected the staff journal partner. Any institutional staff member could volunteer to participate as a journal partner for inmates in the CHANGE program. To complete Phase II, an inmate must have been actively journaling with a partner and completed a relapse prevention plan. The inmate presented his plan to the group along with a thinking report on his actual crime. The group facilitators and journaling partner decided whether or not he had successfully completed the requirements of this phase by understanding his thinking and the cycles of his behavior.

The final stage of the CHANGE program was Phase III. It was a follow-up to the first two phases and was where the concepts were applied to real life. The program design called for group meetings twice a week to discuss thinking reports and to monitor and reinforce responsible thinking (Bush & Bidodeau, 1993). Lasting six to twelve months, this stage was voluntary and was designed for community reintegration.

The facilitators of the CHANGE program consisted of case managers, CHANGE officers, and housing officers. The case manager position required a bachelor's degree. Among many job duties, treatment programming was part of a case manager's job. For the case managers during this study, their tenure at the institution ranged from 1.5 years to 15 years, with an average of 7.5 years. The majority of CHANGE case managers had been

active in the voluntary cognitive program called STP.

To become a correctional officer who facilitated CHANGE groups, bids were taken from the entire correctional officer population at the institution. The bids were based on union rules, with the most senior applicants being awarded the first shift, weekends off, CHANGE officer positions. The tenure of the CHANGE officers ranged from 8-19 years, with an average of 16 years at the institution. The educational level of the CHANGE officers ranged from a high school diploma to some college.

The housing officers were officers assigned to the housing units of the CHANGE inmates. This was not a position that was bid on but was part of their regular assignment. The tenure of the block officers ranged from 15 to 27 years, with the average being 18 years. The educational level ranged from some college to an associate's degree.

All staff involved with the CHANGE program received 40 hours of initial training on cognitive programming. A case manager and a CHANGE officer facilitated each group and the block officer was to reinforce the lessons by pointing out cognitive distortions while in the housing unit. The funding to begin the program was provided by the state legislature.

Unlike the STP program, inmates were selected by prison administrators to receive the CHANGE intervention (i.e., CHANGE was an involuntary program). The involuntary CHANGE program was for high-risk inmates, which was defined by security level points from 23-35. This equated to the second highest level of security (Level V) in state correctional system. These points were based on the original charge and disposition and misconduct while incarcerated. The other stipulations in the pilot study were no GED and no mental health background. Thus, the CHANGE program was designed to be administered to those classified as higher security, high-risk problem inmates in the hope of reducing their misconduct and ultimately improving their institutional behavior. An analysis of inmate misconduct before and after the CHANGE program was completed among both inmates who went through the program and those who did not go through the program.

Methodology

Participants

A pilot CHANGE program was conducted in which 136 inmates were selected by administrative staff to part of the program. In order to qualify for the pilot program, the inmate needed to meet the following criteria: 1) 26 years old or younger; 2) points indicating Level V classification (i.e., high security level classification); 3) no GED or high school diploma; and 4) no current mental health problems or issues. The prison administration randomly assigned 68 of the selected inmates to the group that went through the pilot CHANGE program. The other 68 inmates were assigned to the reserve group, which did not receive the CHANGE program. Data used in this study for all 136 inmates was collected from the computer system used at the prison. The data was entered into a statistical software database (i.e., SPSS) and was checked and cleaned for errors.

The demographic characteristics of the entire group and each subgroup are presented in Table 1. The 136 inmates in the study were young. They averaged 20.87 years old, with a standard deviation of 2.07, and their ages ranged from 17 to 26. The median highest grade completed was 10th grade. Approximately 70% of the inmates were Black, and the remaining 30% were White. Ninety-seven percent of the inmates were not married

at the start of the program. Based on the information presented in Table 1, there were only minor differences between the groups. Specifically, the two groups were statistically similar based upon the independent t-test (results not reported) in terms of age, grade level completed, race, martial status, mean number of prior juvenile commitments and probation sentences, mean number of prior adult commitments and probation sentences, and past drug, alcohol and mental health problems, which would be expected by chance assignment. In general, the two groups were similar to one another in terms of demographic characteristics.

Table 1. *Demographic Characteristics of the Inmates in the Study*

Demographic Category	Total Group (*N* = 136)	CHANGE Group (*n* = 68)	Non-CHANGE Group (*n* = 68)
Mean Age	20.87 *SD* = 2.07	21.31 *SD* = 2.26	20.43 *SD* = 1.77
Median Grade Level	10th Grade	10th Grade	10th Grade
Race	70% Black and 30% White	76% Black and 24% White	65% Black and 35% White
Marital Status at Start of Program	3% were married; 97% were not married	3% married; 97% were not married	3% were married; 97% were not married
Mean Number of Prior Juvenile Commitments	1.08 *SD* = 1.83	0.81 *SD* = 1.35	1.35 *SD* = 2.16
Mean Number of Prior Juvenile Probations	1.39 *SD* = 1.74	1.46 *SD* = 1.77	1.32 *SD* = 1.72
Mean Number of Prior Adult Probations	0.47 *SD* = 0.80	0.50 *SD* = 0.91	0.44 *SD* = 0.44
Mean Number of Adult Prior Jail Commitments	0.68 *SD* = 1.09	0.75 *SD* = 1.15	0.60 *SD* = 1.02
Mean Number of Prior Adult Prison Commitments	0.074 *SD* = 0.34	0.044 *SD* = 0.21	0.10 *SD* = 0.428
Prior Reported Drug Use History	52%	49%	55%
Prior Reported Alcohol Problem	31%	28%	34%
Prior Reported Mental Health Problem	22%	24%	20%

Note. SD stands for Standard Deviation.

Measures

The misconduct history up to one year prior to the start of the pilot CHANGE program for the total group of inmates, the CHANGE group (i.e., treatment group), and the Non-CHANGE group (i.e., comparison group) is presented in Table 2. Three time frames were selected - three months, six months, and one year prior to the start of the pilot CHANGE program. These time frames were selected to obtain information about the misconduct rates by the inmates, and these time frames are often used in evaluations of cognitive programs for criminal offenders. Misconduct reports were divided into five categories: Disobeying a Direct Order, Insolence, Violent, Non-Violent, and total number of reports. These categories were selected for two major reasons. First, these categories have been used in past research on inmate misconduct. The second reason was to calculate the frequency of these types of misconduct reports for the inmates in the study.

From a review of the misconduct report histories of the 136 inmates in the study, the two most frequent charges of misconduct were Disobeying a Direct Order and Insolence. Calculating the number of misconduct reports for Disobeying a Direct Order and Insolence for the specified time frames prior to the start of the pilot CHANGE program was relatively straightforward. Each time the code for each of these disciplinary infractions occurred, they were recorded for the appropriate time period.

There is no one single code for Violent Misconduct in the state correctional system; rather, there are many different violations which result from violent behavior. In this study, Violent Misconduct was recorded for the following types of inmate misconduct: 1) Assault Resulting in Serious Physical Injury to Another Inmate, 2) Assault Resulting in Serious Physical Injury to Staff, 3) Assault Resulting in Serious Physical Injury to Other Victim,

4) Assault and Battery of Another Inmate, 5) Assault and Battery of Staff, 6) Assault and Battery of Other Victim, 7) Homicide, 8) Threatening Behavior, 9) Sexual Assault, and 10) Fighting. Most of the recorded misconduct reports in this category were for the violations of Fighting and Threatening Behavior. There were no misconduct reports for Homicide.

The category of other Non-Violent Misconduct comprised all other misconduct, excluding those violations included in the categories of Disobeying a Direct Order, Insolence, and Violent Misconduct. Finally, the total number of misconduct reports was recorded for each time period. The total number of misconduct reports was simply the summation of the number of misconduct reports in the categories of Disobeying a Direct Order, Insolence, Violent Misconduct, and Non-Violent Misconduct. From Table 2, there appeared to be a sizable amount of misconduct among the 136 inmates. The number of total misconduct reports one year prior to the start of the pilot CHANGE program ranged from 0 to 34, and the average inmate had 8.1 total misconduct reports.

Procedure

As previously indicated, the inmates in this study were all identified by the prison administration as being eligible for participation in the Pilot CHANGE program. The prison administration randomly assigned the selected inmates into the group who would participate in the Pilot CHANGE group and the group which did not participate in the program. Those in the Pilot CHANGE program received the previous described intervention for Phases I and II. No inmate in this study had entered into or completed Phase III of the CHANGE program.

Design

Table 2. *Misconduct History Prior to the Start of the Pilot CHANGE Program*

Mean Number of Misconduct Reports for Misconduct Area and Time Frame	Total Group	CHANGE Group	Non-CHANGE Group
Three Months Prior to the Start of the Program			
Disobeying a Direct Order	0.63 (1.23)	0.46 (0.61)	0.81 (1.61)
Insolence	0.21 (0.58)	0.18 (0.42)	0.25 (0.70)
Violent	0.29 (0.61)	0.13 (0.34)	0.44 (0.76)
Other Non-Violent	0.83 (1.70)	0.31 (0.65)	1.35 (2.20)
Total Misconduct Reports	1.96 (2.70)	1.06 (1.13)	2.88 (3.43)
Six Months Prior to the Start of the Program			
Disobeying a Direct Order	1.14 (1.88)	0.91 (1.59)	1.37 (2.12)
Insolence	0.47 (0.89)	0.38 (0.65)	0.56 (1.08)
Violent	0.43 (0.87)	0.26 (0.51)	0.60 (1.10)
Other Non-Violent	1.63 (2.50)	0.94 (1.36)	2.32 (3.12)
Total Misconduct Reports	3.60 (4.21)	2.35 (2.51)	4.85 (5.12)
One Year Prior to the Start of the Program			
Disobeying a Direct Order	2.21 (2.52)	1.93 (2.01)	2.50 (2.93)
Insolence	1.23 (2.09)	1.18 (2.06)	1.28 (2.14)
Violent	0.93 (1.48)	0.71 (0.92)	1.16 (1.86)
Other Non-Violent	3.79 (4.10)	2.71 (2.79)	4.88 (4.86)
Total Misconduct Reports	8.06 (6.94)	6.29 (5.45)	9.82 (7.85)

Note. Standard Deviation is reported in the parentheses.

A 2x2 mixed factorial design was used. The impact of the Pilot Change program on misconduct reports was tested using General Linear Univariate Models (i.e., ANOVA). The outcome criteria were the number of misconduct reports (in the areas of Disobeying a Direct Order, Insolence, Violent, Non-violent, and total number of misconduct reports) three and six months after the end of the Pilot CHANGE program. There were two independent variables. The first measured if the inmate had participated in the CHANGE program (coded 1) or had not participated in the program (coded 0). The second independent variable used in the analyses was the number of misconduct reports for the

a specific area for the appropriate time period before the start of the program (e.g., the number of misconduct reports for Disobeying a Direct Order three months prior to the start of the program when the dependent variable is the number of misconduct reports for Disobeying a Direct Order three months after the completion of the program). An interaction effect between the two independent variables was allowed.

Findings

The average number of misconduct reports during the time of the pilot CHANGE program for the total group of inmates and both subgroups is presented in Table 3. To determine whether the mean frequency of misconduct reports changed during the course of the program, the number of misconduct reports for each inmate in the study during the first three months of the program and during the last four months of the program was recorded. Based upon the data in Table 3, the two groups were very similar in their levels of misconduct reports in the various misconduct report categories and time frames. Second, the mean level of daily misconduct reports did not significantly alter after accounting for the different number of days in the two time frames of three and four months respectively.

Table 3. *Misconduct History During the Pilot CHANGE Program*

Mean Number of Misconduct Reports for Misconduct Area	Total Group of Inmates		Pilot CHANGE Group		Non-CHANGE Group	
	First 3 months	Last 4 months	First 3 months	Last 4 months	First 3 months	Last 4 months
Disobeying a Direct Order	0.39 (0.79)	0.53 (1.07)	0.35 (0.59)	0.47 (0.97)	0.43 (0.95)	0.59 (1.16)
Insolence	0.17 (0.46)	0.26 (0.53)	0.18 (0.49)	0.26 (0.48)	0.16 (0.44)	0.25 (0.58)
Violent	0.28 (0.57)	0.40 (0.85)	0.24 (0.52)	0.31 (0.53)	0.34 (0.61)	0.48 (1.07)
Other Non-Violent	0.85 (2.19)	0.52 (0.87)	0.46 (1.00)	0.50 (0.89)	1.25 (2.88)	0.53 (0.86)
Total Misconduct Reports	1.66 (2.79)	1.67 (2.02)	1.16 (1.72)	1.50 (1.53)	2.16 (3.49)	1.84 (2.41)

Note. Standard deviation is presented in parenthesis. There were no statistically significant differences in daily incident report level after accounting for the different number of days in each time frame.

The average number of misconduct reports after the pilot CHANGE program for the total group of inmates and both subgroups is presented in Table 4. The two times frames of three months and six months after the completion of the pilot CHANGE were selected. The study did not include the time point "one year after" because the transfer of electronic files took place before that point.

Because a 2x2 mixed factorial design was used, General Linear Models were used for each of the outcome measures, and the two independent variables were the variable measuring if the inmate participated in the CHANGE program or not and the variable measuring the number of misconduct reports prior to the CHANGE program. The results are presented in Table 5. Participating in the Pilot CHANGE had no statistically significant effect on official misconduct reports received either three months or six months after the

completion of the program. In addition, there were no statistically significant associations between the interaction effects of the CHANGE variable and the measure of misconduct reports received before the start of the program on any of the five types of misconduct report measures either three months or six months after the completion of the program. Prior misconduct did have a significant association with some areas of misconduct after the completion of the program. This is likely due to the fact that the Non-CHANGE group had in general a higher average number of misconduct reports prior to the start of the program (see Table 3).

Table 4. *Misconduct History for Three and Six Months after the Competition the Pilot CHANGE Program*

Mean Number of Misconduct Reports for Misconduct Area and Time Frame	Total Group of Inmates	Pilot CHANGE Group	Non-CHANGE Group
Three Months After the Completion of the Program			
Disobeying a Direct Order	0.43 (0.88)	0.46 (0.85)	0.41 (0.90)
Insolence	0.12 (0.37)	0.10 (0.31)	0.15 (0.43)
Violent	0.32 (1.06)	0.10 (0.31)	0.53 (1.44)
Other Non-Violent	0.38 (0.93)	0.37 (1.10)	0.38 (0.71)
Total Misconduct Reports	1.22 (2.22)	0.97 (1.70)	1.47 (2.63)
Six Months After the Completion of the Program			
Disobeying a Direct Order	0.76 (1.45)	0.76 (1.16)	0.75 (1.70)
Insolence	0.21 (0.54)	0.22 (0.57)	0.21 (0.50)
Violent	0.49 (1.32)	0.26 (0.48)	0.72 (1.78)
Other Non-Violent	0.65 (1.20)	0.65 (1.43)	0.66 (0.92)
Total Misconduct Reports	2.10 (3.07)	1.85 (2.59)	2.34 (3.49)

Note. Standard deviation is presented in parenthesis.

Discussion and Conclusion

The results suggest that the pilot CHANGE program had no statistically significant impact on reducing the number of misconduct reports among the inmates who participated in the program as compared to the inmates that did not participate in the program. There are several major explanations for the results.

First, it is possible that differential treatment of participants by prison staff occurred. Some staff could have felt that CHANGE inmates had less of an excuse for misbehavior, and therefore were more likely to write misconduct reports for this group. Additionally, a few members of the CHANGE staff felt that a small group of officers deliberately targeted CHANGE inmates for misconduct reports due to resentment over perceived favoritism in the more choice CHANGE staff assignments; an equal number of other CHANGE staff felt there was no such deliberate targeting. The experimental design cannot determine the difference between deliberate sabotage and a true null result.

The second reason was the outcome selected. In this study, the outcome criterion selected was major misconduct reports. It could be that the CHANGE program has no impact on major misconduct reports, but could have an impact on other areas. The CHANGE program could have reduced minor infractions not measured in this study. Minor misconduct is handled by staff and is not recorded in the electronic file of the inmate. It could also be that the CHANGE program reduced errors in thinking, which might lead to a reduction in recidivism once released. Because many of the inmates in this study will not be released in the near future, this postulation is not testable at this time.

Table 5. *Source Table of 2 (CHANGE Program Participation) x 2 (Prior Misconduct History) After the Competition the Pilot CHANGE Program*

Time Frame and Misconduct Area	SS	df	MS	F	p	Effect Size
Three Months After the Completion of the Program						
Disobeying a Direct Order						
3 Months Prior	10.00	6	1.67	2.28	.04	.10
Change	.14	1	.14	.20	.66	.002
3 Months Prior * Change	1.07	2	.54	.73	.48	.01
Error	92.12	126	.73			
Insolence						
3 Months Prior	1.84	3	.61	4.92	.003	.10
Change	.04	1	.04	.31	.58	.002
3 Months Prior * Change	.45	2	.23	1.82	.16	.03
Error	16.04	129	.12			
Violent						
3 Months Prior	9.20	3	3.07	2.94	.04	.06
Change	1.91	1	1.91	1.82	.18	.01
3 Months Prior * Change	.22	1	.22	.21	.65	.002
Error	135.84	130	1.04			
Other Non-Violent						
3 Months Prior	8.40	7	1.20	1.40	.21	.07
Change	1.19	1	1.19	1.40	.24	.01
3 Months Prior * Change	2.88	3	.96	1.12	.34	.03
Error	106.12	124	.86			
Total Misconduct Reports						
3 Months Prior	181.79	13	13.98	3.47	.001	.28
Change	5.63	1	5.63	1.40	.24	.01
3 Months Prior * Change	21.82	4	5.46	1.35	.25	.04
Error	467.39	116	4.03			
Six Months After the Completion of the Program						
Disobeying a Direct Order						
6 Months Prior	104.17	9	11.57	7.93	.001	.37
Change	.001	1	.001	.001	.99	.00
6 Months Prior * Change	2.38	4	.60	.41	.80	.01
Error	176.52	121	1.46			
Insolence						
6 Months Prior	1.00	4	.25	.89	.47	.03
Change	.45	1	.45	1.60	.21	.01
6 Months Prior * Change	1.29	3	.43	1.53	.21	.04
Error	35.77	127	.28			
Violent						
6 Months Prior	21.63	5	4.33	2.69	.02	.10
Change	.96	1	.96	.60	.44	.005
6 Months Prior * Change	1.05	2	.52	.33	.72	.005
Error						
Other Non-Violent						
6 Months Prior	15.27	10	1.53	1.09	.37	.08
Change	1.60	1	1.60	1.14	.29	.01
6 Months Prior * Change	13.42	6	2.24	1.6	.15	.08
Error	164.91	118	1.40			
Total Misconduct Reports						
6 Months Prior	182.46	19	9.60	1.06	.40	.16
Change	4.53	1	4.53	.50	.48	.005
6 Months Prior * Change	85.22	9	9.47	1.04	.41	.08
Error	961.81	106	9.07			

Note. The partial Eta-squared statistic is reported for the effect size.

The third reason is that the CHANGE program had no significant impact on inmate misconduct because it was an involuntary program. There is the issue of motivation during the treatment intervention (Prendergast, Farabee, Cartier, & Henkin, 2002). It has been argued that forcing people to participate in a treatment intervention allows for motivation for change to move from lack of interest to a willingness to change (Brecht, Anglin, Wang, 1993; Prendergast et al., 2002). Oppositely, it is argued that forcing a person into treatment may lead to resentment and further resistance to change (Prendergast et al., 2002). The literature in this area suggests that for behavior to change there generally needs to motivation on the part of the subject to change (VanVoorhis, Braswell, & Lester, 2004). Hence, those who volunteer for a program are more likely to change than those who are required to participate in a program. Prendergast et al. (2002) pointed out that involuntary participation in a treatment program is often associated with lower motivation and engagement, and this leads many times to less desirable outcomes than those found with voluntary-based programs. Since the CHANGE program was an involuntary cognitive program, this conclusion is not without merit.

The fourth reason is that the CHANGE program has merit, but the delivery of services needs to be improved. In other words, the CHANGE program in its current format does not work, but the program would work if the delivery of services was improved. Many programs fail not because the initial idea/concept is flawed, but rather the delivery of services is flawed in some manner (Rossi & Freeman, 1993). Prendergast et al. (2002) argued that "the effectiveness of coercive approaches largely depends on how they are designed and implemented" (p. 22). Thus, if the CHANGE program was redesigned to reflect that treatment is being provided to participants who are not there willingly, the program might be effective in reducing inmate misconduct. Prendergast et al. (2002) contended, "Treatment providers, particularly those with a large percentage of coerced clients, should not assume that they can necessarily rely on their usual treatment methods and techniques. To maintain their historical level of success and to minimize the disruption of treatment, providers will likely need to modify their program to take into account the high levels of resistance of many coerced clients" (p. 23). Since this was a pilot study at the beginning of a larger evaluation, ineffective program delivery is a viable explanation. Many of the staff assigned to CHANGE were just learning the material and how to run groups.

Further, Prendergast et al. (2002) commented that the length of the program may need to be extended for involuntary participants as compared to that for willing participants. Program length is especially critical, where longer periods of time allow for greater chances that a person's motivation towards the treatment and change will move from negative to positive. The original program length of Phase I was 6-8 weeks. The Pilot study length was also 6 to 8 weeks. Thus, in order for the CHANGE program to work, it may need to be extended.

In closing, with rise in both the cost of incapacitation and the number of people incarcerated, it is important to search for interventions which can address prison misconduct. Baro (1999) correctly argued "being able to identify programs that have positive effects on inmate behavior is an increasingly important management issue" (p. 469). The literature points to cognitive-based programming as a possible solution (Cullen & Gendreau, 2000; French & Gendreau, 2006; Gaes, Flanagan, Motiuk, & Stewart, 1999; VanVoorhis et al., 2004). This pilot study examined the effects of the CHANGE program on inmates at a Midwestern prison and found that Phase I had no significant impact on major misconducts, which was based on the number of major misconduct reports filed against inmates.

Although this was only a pilot study, concern is raised in two areas of implementation: service delivery and duration. The importance of proper implementation is crucial to success, and although the findings of this study are non-significant, addressing these areas may result in a different outcome. Uncovering the correct combination of factors is a key in successful programming, and thus, practitioners should not be discouraged by these results.

References

Allen, L., MacKenzie, D., & Hickman, L. (2001). The effectiveness of cognitive behavioral treatment for adult offenders: A methodological, quality-based review. *International Journal of Offender Therapy and Comparative Criminology, 45,* 498-514.

Andrews, D., & Bonta, J. (2003). *The psychology of criminal conduct,* 3rd ed. Cincinnati, OH: Anderson Publishing Company.

Andrews, D., Zinger, I., Hoge, R., Bonta, J., Gendreau, P., & Cullen, F. (1990). Does correctional treatment work? A psychologically informed meta-analysis. *Criminology, 28,* 369-404.

Antonowicz, D., & Ross, R. (1994). Essential components of successful rehabilitation programs for offenders. *International Journal of Offender Therapy and Comparative Criminology, 38,* 97-104.

Baro, A. (1999). Effects of a cognitive restructuring program on inmate institutional behavior. *Criminal Justice and Behavior, 26,* 466-484.

Brecht, M., Anglin, M., & Wang, J. (1993). Treatment effectiveness for legally coerced versus voluntary methadone maintenance clients. *American Journal of Drug and Alcohol Abuse, 19,* 89-106.

Bush, J., & Bilodeau, B. (1993). *Options: A cognitive change program.* Washington, DC: National Institute of Corrections.

Bye, L., & Schillinger, D. (2005). Evaluation of a cognitive thinking program. *The Journal of Correctional Education, 56,* 202-215.

Cirillo, K., Pruitt, B., Colwell, B., Kingery, P., Hurley, R., & Ballard, D. (1998). School violence: Prevalence and intervention strategies for at-risk adolescents. *Adolescence, 33,* 319-330.

Coyle, A. (1987). The management of dangerous and difficult prisoners. *Howard Journal of Criminal Justice, 26,* 139-154.

Cullen, F., & Gendreau, P. (2000). Assessing correctional rehabilitation: Policy, practice, and prospects. In J. Horney, (Ed.), *Policies, processes, and decisions of the criminal justice system, vol. 3 (*pp. 109-175), U.S. Department of Justice.

Ekland-Olson, S. (1986). Crowding, social control, and prison violence: Evidence from the post Ruiz years in Texas. *Law and Society Review, 20,* 389-421.

Eichenthal, D., & Blatchford, L. (1997). Prison crime in New York. *The Prison Journal, 77,* 456-466.

Ellis, J. (1993). Security officers' role in reducing inmate problem behaviors: A program based on contingency management. *Journal of Offender Rehabilitation, 20,* 61-72.

Flanagan, T. (1983). Correlates of institutional misconduct among state prisoners. *Criminology, 21,* 29-39.

Fox, K. (1999). Changing violent minds: Discursive correction and resistance in the cognitive treatment of violent offenders in prison. *Social Problems, 46,* 88-108.

Freeman, A., & Reinecke, M. (1995). Cognitive therapy. In A. Gurman & S. Messer, (Eds.), *Essential psychotherapies* (pp. 192-225), New York: Guilford.

French, S., & Gendreau, P. (2006). Reducing prison misconduct: What works! *Criminal Justice and Behavior, 33,* 185-218.

Gaes, G., Flanagan, T., Motuik, L., & Stewart, L. (1999). Adult correctional treatment. In M. Tonry & J. Petersilia (Eds.), *Prisons* (pp. 361-426), Chicago: University of Chicago Press.

Gendreau, P., & Ross, R. (1979). Effective correctional treatment: Bibliotherapy for cynics. *Crime and Delinquency, 25,* 463-489.

Goetting, A., & Howsen, R. (1986). Correlates of prisoner misconduct. *Journal of Quantitative Criminology, 2,* 31-46.

Hagan, F. (1997). *Research methods in criminal justice and criminology* 2nd ed. Boston: Allyn and Bacon.

Henning, K., & Frueh, B. (1996). Cognitive-behavioral treatment of incarcerated offenders: An evaluation of the Vermont Department Corrections' cognitive self-change program. *Criminal Justice and Behavior, 23,* 523-541.

Irwin, J., & Austin, J. (1997). *It's about time: America's imprisonment binge* 2nd ed. Belmont, CA: Wadsworth Publishing.

Izzo, R., & Ross, R. (1990). Meta-analysis of rehabilitation programs for juvenile delinquents: A brief report. *Criminal Justice and Behavior, 17,* 134-142.

Johnson, R. (1996). *Hard time: Understanding and reforming the prison* 2nd ed. Belmont, CA: Wadsworth Publishing Company.

Kappeler, V., Blumberg, M., & Potter, G. (1996). *The mythology of crime and criminal justice*. Prospect Heights, IL: Waveland.

Kendall, P., & Panichelli-Mindel, S. (1995). Cognitive-behavioral treatments. *Journal of Abnormal Child Psychology, 23,* 107-125.

Lester, D., Braswell, M., & VanVoorhis, P. (2004). Radical behavior interventions. In P. VanVoorhis, M. Braswell, & D. Lester, (Eds.), *Correctional counseling and rehabilitation*, 5th ed., (pp. 61-84), Cincinnati, OH: Anderson Publishing.

Lester, D., & VanVoorhis, P. (2004). Cognitive therapies. In P. VanVoorhis, M. Braswell, & D. Lester (Eds.), *Correctional counseling and rehabilitation*, 5th ed., (pp.183-208), Cincinnati, OH: Anderson Publishing.

Lipsey, M. (1992). Juvenile delinquency treatment: A meta-analytic inquiry into the variability of effects. In T. Cook, H. Cooper, D. Cordray, H. Hartmann, L. Hedges, R. Light (Eds.), *Meta-analysis for explanation: A Casebook,* (pp. 83–127). New York: Russell Sage.

Little, G., Robinson, K., & Burnette, K. (1993). Cognitive behavioral treatment of felony drug offenders: A five-year recidivism report. *Psychological Reports, 73,* 1089-1090.

Long, C. Langevin, A., Langevin, C., & Weekes, J. (1998). A cognitive-behavioral approach to substance abuse treatment: Canada embraces social learning concept in treatment of substance abuse. *Corrections Today, 60*(6): 102-106.

Love, D., & Jemelka, R. (1996). When inmates misbehave: The costs of discipline. *The Prison Journal, 76,* 165-188.

Maitland, A., & Sluder, R. (1996). Victimization in prisons: A study of factors related to the general well-being of youthful inmates. *Federal Probation, 60*(2), 24-31.

Maitland, A., & Sluder, R. (1998). Victimization and youthful prison inmates: An empirical analysis. *The Prison Journal, 78*(1), 55-73.

Matthews, R., & Pitts, J. (1998). Rehabilitation, recidivism, and realism: Evaluating violence reduction programs in prison. *Prison Journal, 78,* 390-402.

McCorkle, R. (1993). Living on the edge: Fear in a maximum-security prison. *Journal of Offender Rehabilitation, 20*(1/2), 73-91.

McGuire, J., & Hatcher, R. (2001). Offense-focused problem solving: Preliminary evaluation of a cognitive skills program. *Criminal Justice and Behavior, 28,* 564-58

Meichenbaum, D. (1977). *Cognitive-behavioral modification: An integrative approach*. New York: Plenum Press.

Memory, J., Guo, G., Parker, K., & Sutton, T. (1999). Comparing disciplinary infraction rates of North

Carolina fair sentencing and structured sentencing inmates: A natural experiment. *The Prison Journal, 79,* 45-71.

Neuman, W. (2000). *Social research methods: Qualitative and quantitative approaches,* 4th ed. Boston: Allyn and Bacon.

Patrick, S. (1998). Differences in inmate-inmate and inmate-staff altercations: Examples from a medium security prison. *Social Science Journal, 35,* 253-263.

Prendergast, M., Farabee, D., Cartier, J., & Henkin, S. (2002). Involuntary treatment within a prison setting: Impact on psychosocial change during treatment. *Criminal Justice and Behavior, 29,* 5-26.

Ross, R., & Fabiano, E. (1985). *Time to think: A cognitive model of delinquency prevention and offender rehabilitation.* Johnson City, TN: Institute of Social Science and Arts.

Ross, R., Fabiano, E., & Ewles, C. (1988). Reasoning and rehabilitation. *International Journal of Offender Therapy and Comparative Criminology, 32,* 29-35.

Rossi, P., & Freeman, H. (1993). *Evaluation: A systematic approach,* 5th ed. Newbury Park, CA: Sage Publications.

Reinecke, M., Ryan, N., & DuBois, D. (1998). Cognitive-behavioral therapy of depression and depressive symptoms during adolescence: A review and meta-analysis. *Journal of the American Academy of Child and Adolescent Psychiatry, 37,* 26-35.

Samenow, S. (1984). *Inside the criminal mind.* New York: Times Books.

Samenow, S. (1989). *Before it's too late.* New York: Times Books.

Silberman, M. (1995). A world of violence: Corrections in America. Belmont, CA: Wadsworth Publishing

Toch, H. (1977). *Living in prison: The ecology of survival.* New York: Free Press.

Van Voorhis, P., Braswell, M., & Lester, D. (2004). *Correctional counseling and rehabilitation,* 5th ed. Cincinnati, OH: Anderson Publishing.

Vaughn, M., & del Carmen, R. (1995). Civil liability against prison officials for inmate-on-inmate assault: Where are we and where have we been? *Prison Journal, 75,* 69-89.

Wang, E., Owens, R., Long, S., Diamond, P., & Smith, J. (2000). The effectiveness of rehabilitation with persistently violent male prisoners. *International Journal of Offender Therapy and Comparative Criminology, 44,* 505-514.

Ward, A., & Baldwin, S. (1997). Anger and violence management programs in correctional services: An annotated bibliography. *Prison Journal, 77,* 472-485.

Wilson, D., Bouffard, L., & MacKenzie, D. (2005). A quantitative review of structured, group-oriented, cognitive behavioral programs for offenders. *Criminal Justice & Behavior, 32,* 172-204.

Withrow, P. (1994). Cognitive restructuring: An approach to dealing with violent inmates. *Corrections Today, 56,* 112, 114-116.

Wright, K. (1994). *Effective prison leadership.* Binghamton, NY: William Neil Publishing.

Yochelson, S., & Samenow, S. (1976). *The criminal personality, Vol. 1: A profile for change.* New York: Jason Aronson.

Yochelson, S., & Samenow, S. (1977). *The criminal personality, Vol. 2: The change process.* New York: Jason Aronson.

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