The STEPS to Economic and Personal Success (STEPS) Curriculum at Montana State Prison

An overview of cognitive & behavioral change
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Introduction

Background

In 2014, over 15,000 individuals were being supervised under the jurisdiction of the Montana Department of Corrections (MDOC, 2015). Over 2,500 of these individuals (or about 17%) were being housed in State prisons. Furthermore, in each of the five years from 2010 to 2014, over 2,000 individuals were released from adult facilities in Montana. Once in the community, recently released offenders face a number of barriers and challenges to achieving successful reintegration. A significant portion fail, and end up back in prison within three years. In Montana, approximately 41% of male and 30% of female offenders recidivate each year (based on author calculations of MDOC, 2015). Not just in Montana, but across the country, jurisdictions strive to offer services and tailor programming in efforts to foster reintegration and reduce recidivism. The purpose of this report is to overview the preliminary evaluation of a cognitive-based treatment program offered to medium- and low-risk offenders under supervision of the MDOC. The program is called STEPS to Economic and Personal Success, and was developed by The Pacific Institute (TPI). As a whole, STEPS seeks to promote self-sufficiency in life and work by changing the foundation of beliefs and attitudes that lead to poor outcomes. Through a combination of survey and administrative data, the present study examined how the STEPS curriculum affected participating inmates at Montana State Prison (MSP).

Principles of Effective Correctional Programming

Recent developments in correctional theory and practice have placed a renewed emphasis on fostering success after prison by providing inmates with the proper treatment, training, and tools while incarcerated. This is perhaps best encapsulated in the now widespread use of the risk-
needs-responsivity (RNR) model. Born of frustrations of correctional programming during the era of “nothing works,” the RNR model uses principles of social learning and behavioral theories in hopes of identifying “what works” in correctional programming.

As the name implies, the model is based on the three key principles displayed in Figure 1. The risk principle refers to an offender’s likelihood of reoffending, and these individual factors are broken down into static and dynamic factors. Static risk factors cannot be changed, and include characteristics like criminal history, sex, age, and family background. Dynamic risk factors, on the hand, can be changed, and are often referred to as criminogenic risk factors. Through risk assessments, such as the Montana Offender Reentry Risk Assessment (MORRA) or the Women’s Risk and Needs Assessment (WRNA), an offender’s risk level can be calculated.

At the core of this principle is the idea that high-risk offenders should receive more intensive services. Indeed, according to the National Institute of Corrections, approximately 40-70% of a high risk offender’s time should be structured during supervision in the community (Crime and Justice Institute, 2009). Low-risk offenders, on the other hand, may actually respond poorly to the application of too many services or a service dosage that is too high. In simple terms, then,
the risk principle helps practitioners identify *who* should be targeted for treatment and programming.

The *need principle* directs practitioners to target those criminogenic risk factors that are linked to criminal behavior and that can be changed (i.e., that are dynamic rather than static). In other words, the need principle helps to identify *what* services to provide to an offender. The work of Andrews and colleagues (2006) established eight of these risk factors, and they are displayed in Table 1.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Dynamic Risk</th>
<th>Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of antisocial behavior</td>
<td>Early and continuing involvement in a number and variety of antisocial acts</td>
<td>Build noncriminal alternative behavior in risky situations</td>
</tr>
<tr>
<td>Antisocial personality pattern</td>
<td>Adventurous, pleasure seeking, weak self-control, restlessly aggressive</td>
<td>Build problem solving skills, self-management skills, anger management, and coping skills</td>
</tr>
<tr>
<td>Antisocial cognition</td>
<td>Attitudes, values, beliefs, and rationalizations supportive of crime</td>
<td>Recognize risky thinking and feeling, build up alternative less risky thinking and feeling</td>
</tr>
<tr>
<td>Antisocial associates</td>
<td>Close association with criminal others and relative isolation from anticriminal others</td>
<td>Reduce associations with criminal others; enhance association with anticriminal others</td>
</tr>
<tr>
<td>Family and/or martial</td>
<td>Lack of relationships that are nurturing and/or caring and that involve monitoring/supervision</td>
<td>Reduce conflict, build positive relationships, enhance monitoring and supervision</td>
</tr>
<tr>
<td>School and/or work</td>
<td>Low levels of performance and satisfaction in school and/or work</td>
<td>Enhance involvement, rewards, and satisfactions</td>
</tr>
<tr>
<td>Leisure and/or recreation</td>
<td>Low levels of involvement and satisfaction in anticriminal leisure pursuits</td>
<td>Enhance involvement, rewards, and satisfactions</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>Abuse of alcohol and/or other drugs</td>
<td>Reduce substance use; reduce support for substance-oriented behavior; enhance alternative to drug abuse</td>
</tr>
</tbody>
</table>

As discussed in more detail below, cognitive-based programs such as STEPS work to directly address risk factors, such as anti-social personality patterns and antisocial cognition, in hopes that these improvements will indirectly affect other factors such as work, family, and substance abuse.

Finally, the responsibility principle is the idea that not all offenders are the same. Rather, offenders begin treatment at different development stages, with different learning styles and levels of motivation. If treatment is going to be effective, practitioners must be aware of these differences, and programming should be structured around such differences. In essence, then, the responsibility principle focuses on the how by recognizing that a “one size fits all” approach to treatment will not be as effective as individualized treatment based on identified risks and needs. In addition, the responsibility principle places a strong emphasis on cognitive-behavioral programming, which we turn to next.

Cognitive-based Programs

At the heart of the RNR model are principles of cognitive-behavioral therapy (CBT). In simple terms, programs based on CBT maintain that we can achieve behavioral change in offenders by changing how an individual thinks about themselves and their life circumstances (Milkman & Wanberg, 2007). Broadly speaking, CBT combines elements of cognitive therapy (i.e., individual assumptions, beliefs, and thinking patterns) with elements of behavioral therapy (i.e., use of rewards and punishments to model pro-social behavior). If, during the course of correctional treatment, individuals can identify and change their dysfunctional thinking patterns,
this can set the stage for more prosocial behavior and foster the desistance from crime (Landenberger & Lipsey, 2005; Wilson, Bouffard, & Mackenzie, 2005).

Correctional programming that is based on elements of CBT tends to share common components. Classes are likely to be group-based and offered in a structured classroom-like setting. Classes usually range from 8 to 12 participants, meet once or twice a week, and work through course materials individually, in small groups, and in the class as a whole. Many CBT programs include manuals and workbooks, and sessions are often lead by a trained facilitator, typically a member of the correctional staff.

Evidence-based Practices

Stemming from the emergence of the RNR model, a renewed emphasis has been placed on delivering cost-effective programming to achieve prosocial change. This has led many agencies to adopt evidence-based practices (EBP) in structuring their available programming options. EBP is “the use of peer-reviewed research based on the best available data to guide policy and treatment decisions such that outcomes for offenders, victims and survivors, and communities are improved” (Stohr & Walsh, 2017, p. 265). In simple terms, EBP means utilizing correctional practices and programs that have been shown to reduce recidivism and/or increase prosocial behavior.

The Crime and Justice Institute (2009) has outlined a number of core principles of evidence-based programming, and these principles echo features of CBT and the RNR model. For instance, interventions should be delivered based on measured risks and needs, programming should involve skill training, positive reinforcement, and provide measurement feedback. In addition, and based on these principles, several agencies provide services to review and rate the
quality of existing correctional programs. For example, the National Institute of Justice (NIJ) produces CrimeSolutions.gov, a website where programs and practices are rated in terms of effectiveness in criminal justice, juvenile justice, and crime victim services. Based on available evidence, CrimeSolutions ranks programs as effective, promising, or as having no effects. The “gold standard” of effective (and evidence-based) programs is the use of experimental or quasi-experimental designs that include the assignment (preferably random) to treatment and control groups. More information on evidence-based practices is provided below, in the discussions of limitations (page 31), and avenues for future research (page 32).

**STEPS to Economic and Personal Success**

One of the core risk factors of the RNR model are antisocial cognitions, or those attitudes, values, beliefs, and rationalizations supportive of crime (Andrews et al., 2006). Cognitive-based programming works primarily to change these antisocial cognitions, replacing risky thinking patterns with prosocial and goal-directed thinking. It is within these larger frameworks of RNR and CBT that the Montana State Prison uses the correctional program called STEPS to Economic and Personal Success (STEPS). The STEPS curriculum was developed by The Pacific Institute (TPI) to reduce criminal thinking and instill prosocial thinking skills. The STEPS curriculum has many of the hallmarks of correctional programming based on elements of CBT. It is delivered over a series of 15 sessions using a multi-media approach. Central to the program is a 184-page manual that participants receive at the onset of the program. Across the 15 facilitated-sessions, participants complete the manual through a combination of video and audio sessions, written materials, exercises, practice interviews, and self-assessment tools. The titles and guiding principles of each session are listed in Table 2 (next page).
<table>
<thead>
<tr>
<th>Unit Title</th>
<th>Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hidden in Plain Sight</td>
<td>When my mind is fixed, I do not allow myself to live the life I'm capable of living.</td>
</tr>
<tr>
<td>Expand the Mind to Create the Future</td>
<td>I am in control of my future.</td>
</tr>
<tr>
<td>How the Mind Works</td>
<td>Keep the goal - just change habits and attitudes.</td>
</tr>
<tr>
<td>Beliefs Regulate Performance</td>
<td>We self-regulate at the level of our beliefs, not at the level of our potential.</td>
</tr>
<tr>
<td>The Internal Conversation</td>
<td>We build our own reality with our own thoughts.</td>
</tr>
<tr>
<td>Comfort Zones</td>
<td>As human beings, we seek the familiar.</td>
</tr>
<tr>
<td>The Next Time…</td>
<td>We act like the persons we know ourselves to be.</td>
</tr>
<tr>
<td>Out of Order - Into Order</td>
<td>Human beings are always working for order in their minds.</td>
</tr>
<tr>
<td>Seeing Myself Into the Future</td>
<td>We act in accordance with the truth we believe it to be.</td>
</tr>
<tr>
<td>Living in Today, Planning for Tomorrow</td>
<td>We move towards and become like what we think about. Our present thoughts determine our future.</td>
</tr>
<tr>
<td>The Tools for Change</td>
<td>As you visualize the new, you become dissatisfied with the old.</td>
</tr>
<tr>
<td>It's My Choice</td>
<td>Do what you want to do, just accept the consequences.</td>
</tr>
<tr>
<td>Yes, I Am Good!</td>
<td>There is a direct relationship between self-esteem and the way your world works.</td>
</tr>
<tr>
<td>Goal-Setting Through</td>
<td>Once you arrive at a goal that you set, you lose your drive and energy.</td>
</tr>
<tr>
<td>Successful and Significant</td>
<td>Yesterday's dreams are today's necessities. Today's dreams are tomorrow's opportunities.</td>
</tr>
</tbody>
</table>

Source: STEPS Course Syllabus.
TPI designed the STEPS curriculum to be accessible for those with an 8th grade reading level or higher. In addition to classroom work, self-directed learning continues beyond the classroom including practical application of concepts to living and work areas. When successful, the program instills and sustain high performance thinking skills by consciously controlling thinking to achieve present and future positive behavioral change.

The Current Study

The current study sought to provide initial evidence on the effectiveness of STEPS using two approaches: (1) an examination of cognitive outcomes, and (2) an examination of behavioral outcomes. In addition, participant impressions of STEPS were solicited, and major themes of these responses will be presented. Beginning in December 2014, all participating inmates gave informed consent to complete a survey questionnaire at the beginning and end of the STEPS program. The results of these surveys (discussed more fully below, see page 14) provide evidence on cognitive change and participant impressions of STEPS. To examine behavioral outcomes, the research team examined institutional infractions and recidivism among individuals who have completed STEPS. Recidivism estimates are based on individuals who had graduated from STEPS between 2009 and 2014. We close by suggesting additional research that could build a stronger case for STEPS as an evidence-based tool to reduce recidivism.
Quantitative and Qualitative Methods and Results

Study Design

The study examined the STEPS curriculum from three different angles: (1) pre- and post-class survey questionnaire, (2) behavioral outcomes, and (3) participant impressions. Each of these components of the project is described in this section.

Cognitive Outcomes

The research team designed a self-report survey guided by the core themes and goals of the STEPS curriculum. Many of the constructs measured in the survey have been used elsewhere, and have been theoretically and empirically linked with offending and recidivism (Knight, Garner, Simpson, Morey, & Flynn, 2006). The final survey contained a total of 104 questions, and a full list of questions can be found as part of Appendix A.

One of the core components of the survey was the TCU Criminal Thinking Scales (CTS). The CTS is a 37-item self-report instrument meant to measure criminal thinking, defined as “distorted thought patterns that support offending behavior by rationalizing and justifying how an individual acts” (Taxman, Rhodes, & Dumenci, 2011:174). The 37 questions are used to create six subscales: Entitlement (conveys a sense of ownership and privilege and misidentifies wants as needs); Justification (also referred to as mollification, reflects a thinking pattern characterized by the offender’s minimizing the seriousness of antisocial acts and by justifying actions based on external circumstances); Personal Irresponsibility (assesses the degree to which an offender is willing to accept ownership for criminal actions); Power Orientation (is a measure of need for power and control, often through manipulating others); Cold Heartedness (addresses
callousness and a lack of emotional involvement in relationships with others); Criminal Rationalization (generally negative attitude toward the law and authority figures).

Given that the goal of STEPS is to instill prosocial thinking and behavior, the research team went beyond criminal thinking and also measured self-esteem, future-oriented thinking, and goal-directed thinking. Self-esteem is measured using the Rosenberg Self-Esteem Scale (RSE), a 10-item self-report instrument of global self-worth. Future-oriented behavior is measured using the Consideration of Future Consequences (CFC) scale. The CFC is a 12-item self-report instrument mean to capture individual variation in future-oriented thinking. Low scores are associated with a greater tendency to make decisions based on short-term consequences, whereas high scores suggest the consideration of long-term consequences. Future-oriented thinking is also partly captured by the Perceived Life Chances scale, measured with 11 items asking respondents to report the likelihood of experience a range of life events related to outcomes such as employment and family. Goal-directed thinking is measured using the State Hope Scale (SHS), a 6-item self-report instrument measuring an individual’s perceptions that goals can be met (in other words, the tendency to pursue goal-directed behavior).

Two central explanations of crime focus on low self-control and the presence of antisocial peers, respectively. As such, the research team attempted to tap these constructs. The measure of self-control is a 12-item self-report instrument used to create three subscales: Impulsivity (tendency to respond to tangible stimuli in the immediate environment, to have a concrete ‘here and now’ orientation); Risk seeking (adventurousome rather than cautious); Self-centered orientation (self-centered, indifferent, or insensitive to the suffering and needs of others). The criminality of an individual’s social network is measured using the Measures of Criminal
Associates (MCA). Through 16 self-report items, individuals indicate if their close associates are involved in crime or the criminal justice system.

Behavioral Outcomes

The research team examined behavioral outcomes using two indicators: (1) institutional infractions before and after program completion, and (2) recidivism outcomes for past STEPS graduates who had been released from confinement.

Institutional infractions are derived from the Offender Management Information System (OMIS) records on participating inmates. Institutional rule infractions include behaviors such as unauthorized possession or misuse of medication, stealing (theft), being found in an unauthorized area, or making, possessing, or using intoxicants. Such infractions often trigger a disciplinary hearing and are formally entered into the inmate’s record.

The MDOC defines recidivism as a return to prison within three years of release. The scope of the current project prohibited an examination of recidivism among participants who completed the pre- and post-class surveys. Simply put, not enough of these participants would have been released from prison for long enough for a meaningful examination of recidivism. However, the combination of two databases allows for a preliminary examination of recidivism. The first is a database of individuals who had completed STEPS between 2009 and 2014. The second is OMIS-extracted data on recidivism among cohorts of parolees released between 2004 and 2015. Combining these databases (with a common identification number) allows for an estimate of recidivism rates among prior STEPS graduates.
Participant Impressions of the Program

The final component of the current study is an examination of responses to open-ended questions provided as part of the post-class survey. In addition to completing survey questions for the cognitive scales, participants were asked the following questions:

- Did you find the curriculum useful? Why or why not?
- How will this curriculum impact you in the future?
- Would you recommend this curriculum to other inmates at Montana State Prison?

Responses to these questions were reviewed, and major themes identified by the research team are discussed.

Study Methods

Each component of the study is examined using a different research methodology. For the cognitive component, pre-class survey scales were compared to post-class survey scales. Absolute and percentage differences were calculated, and the magnitude of the differences were analyzed using a series of t-tests. These tests determine if the difference in two values (in this case, averages at the beginning and averages at the end) is statistically different than zero.

The behavioral component itself is examined using two approaches. The number of institutional infractions was compared before and after STEPS completion. The total time window for infractions covered the period of 18 months before the start of STEPS, and then the following 12 months (if that period of time had elapse at the time of the extract). For the results below, the six months immediately leading up to the start of STEPS were omitted. As such, the infraction analysis time includes months 18 to 6 before the start of STEPS, and then the first 12 months after the course began.

Recidivism rates of prior STEPS graduates were calculated by combining two distinct databases. The first was a database of graduates of an earlier version of the STEPS curriculum
between 2009 and 2014. This database was made available to the research team with the assistance of Montana Correctional Enterprises (MCE). The second is a database of individuals released to parole supervision (including release dates and [if applicable] recidivism dates) between 2004 and 2015. A match between the databases was recorded if (1) the identification number matched across the databases, and (2) the STEPS graduation date occurred between the admission and release date. A recidivism rate is then calculated for this group, and compared to individuals who did not complete STEPS.

Finally, responses to the open-ended questions were content coded by the research team to identify common themes. Those that emerged multiple times across participant responses are highlighted in the results, below.
Results

Characteristics of Participants

The research team collaborated with STEPS facilitators to survey participants starting with the first class offered in December of 2014. Across the study period, a total of 17 classes and 228 participants completed the pre-class survey. Each class had an average of about 12 participants, the smallest had 8 and the largest had 18. Like any program, there was some attrition among STEPS participants, and a total of 141 participants also completed the post-class survey. Class completion rates were above 60% for 12 of the 17 classes, and two classes did not complete post-class surveys by the time of report publication.

The average age of the participants was 36.4, the youngest was 17 and the oldest was 70. Given the demographics of the State of Montana, it is of little surprise that most participants (83%) were white, followed by Native American (14%) and African American (3%). Violent offenders made up over one-third (36%) of all participants, and combined with sex offenders (23%) and drug offenders (17%), make up over 75% of the sample of participants. Smaller percentages were convicted of person (8%), property (8%), or influence (6%) offenses. A full breakdown participant characteristics can be found in Table 3.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>36.4</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>82.9</td>
</tr>
<tr>
<td>Native American</td>
<td>14.2</td>
</tr>
<tr>
<td>African American</td>
<td>2.9</td>
</tr>
<tr>
<td>Offense type</td>
<td></td>
</tr>
<tr>
<td>Violent</td>
<td>35.6</td>
</tr>
<tr>
<td>Sex</td>
<td>23.4</td>
</tr>
<tr>
<td>Drug</td>
<td>17.6</td>
</tr>
<tr>
<td>Person</td>
<td>8.3</td>
</tr>
<tr>
<td>Property</td>
<td>8.3</td>
</tr>
<tr>
<td>Influence</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Table 3. Selected Characteristics of STEPS participants
Cognitive Change

Descriptive information on pre-class scores, post-class scores, and the percentage difference between the two is presented in Table 4 for each scale utilized in the project. To summarize, the results indicate that STEPS participants improved on nearly all of the cognitive indicators under study. By the end of the program, participants’ scores rose significantly for self-esteem, future-oriented and goal-directed thinking, perceptions of future life chances, and significantly declined for criminal thinking. Summary statistics (including pre-class mean, post-class mean, percentage change, and significance testing) for all cognitive measures are available in Table 4 (next page).

Criminal Thinking

Criminal thinking is measured by the Criminal Thinking Scales (CTS), which contains six sub-scales: entitlement (sense of ownership and privilege), justification (minimizing seriousness or pointing to external circumstances), personal irresponsibility (willingness to accept ownership for actions), power orientation (manipulating others for power and control), cold heartedness (callousness or lack of emotional involvement in relationships with others), and criminal rationalization (negative attitude toward law and authority figures). Pre- and post-class scores for each scale are displayed in Figure 2 (page 17). For each scale, scores can range from a minimum of 10 to a maximum of 50, with higher scores indicating greater levels of each type of criminal thinking.

Total criminal thinking scores decreased by 13 percent.
Table 4. Pre- and post-class scores for all cognitive-based measures.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test mean</th>
<th>Post-test mean</th>
<th>% diff</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criminal Thinking Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entitlement</td>
<td>16.85</td>
<td>15.80</td>
<td>-6.23</td>
<td>-2.40  *</td>
</tr>
<tr>
<td>Justification</td>
<td>19.15</td>
<td>15.21</td>
<td>-20.57</td>
<td>-6.86  ***</td>
</tr>
<tr>
<td>Personal Irresponsibility</td>
<td>18.54</td>
<td>16.08</td>
<td>-13.27</td>
<td>-5.04  ***</td>
</tr>
<tr>
<td>Power Orientation</td>
<td>24.94</td>
<td>20.89</td>
<td>-16.24</td>
<td>-6.71  ***</td>
</tr>
<tr>
<td>Cold Heartedness</td>
<td>21.05</td>
<td>19.14</td>
<td>-9.07</td>
<td>-4.12  ***</td>
</tr>
<tr>
<td>Criminal Rationalization</td>
<td>28.41</td>
<td>24.74</td>
<td>-12.92</td>
<td>-5.55  ***</td>
</tr>
<tr>
<td>Total</td>
<td>128.95</td>
<td>111.87</td>
<td>-13.25</td>
<td>-7.01  ***</td>
</tr>
<tr>
<td><strong>Consideration of Future Consequences</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>40.26</td>
<td>45.35</td>
<td>12.64</td>
<td>6.56   ***</td>
</tr>
<tr>
<td><strong>Self Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulsivity</td>
<td>9.53</td>
<td>7.78</td>
<td>-18.36</td>
<td>-7.30  ***</td>
</tr>
<tr>
<td>Risk Seeking</td>
<td>9.10</td>
<td>7.82</td>
<td>-14.07</td>
<td>-5.94  ***</td>
</tr>
<tr>
<td>Self-centered Orientation</td>
<td>8.15</td>
<td>6.83</td>
<td>-16.20</td>
<td>-6.92  ***</td>
</tr>
<tr>
<td><strong>Rosenberg Self-Esteem Scale</strong></td>
<td>27.78</td>
<td>32.18</td>
<td>15.84</td>
<td>9.86   ***</td>
</tr>
<tr>
<td><strong>State Hope Scale</strong></td>
<td>34.24</td>
<td>40.28</td>
<td>17.64</td>
<td>9.59   ***</td>
</tr>
<tr>
<td><strong>Perceived Life Chances</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well paying job</td>
<td>4.10</td>
<td>4.53</td>
<td>10.49</td>
<td>4.74   ***</td>
</tr>
<tr>
<td>Own your own home</td>
<td>3.88</td>
<td>4.48</td>
<td>15.46</td>
<td>5.54   ***</td>
</tr>
<tr>
<td>Enjoyable job</td>
<td>4.19</td>
<td>4.61</td>
<td>10.02</td>
<td>4.63   ***</td>
</tr>
<tr>
<td>Happy family life</td>
<td>3.86</td>
<td>4.50</td>
<td>16.58</td>
<td>6.82   ***</td>
</tr>
<tr>
<td>Good health</td>
<td>4.04</td>
<td>4.45</td>
<td>10.15</td>
<td>5.21   ***</td>
</tr>
<tr>
<td>Freedom of movement</td>
<td>2.98</td>
<td>3.93</td>
<td>31.88</td>
<td>8.32   ***</td>
</tr>
<tr>
<td>Respect of community</td>
<td>3.34</td>
<td>4.02</td>
<td>20.36</td>
<td>7.00   ***</td>
</tr>
<tr>
<td>Reliable friends</td>
<td>3.94</td>
<td>4.47</td>
<td>13.45</td>
<td>5.65   ***</td>
</tr>
<tr>
<td>Better life than parents</td>
<td>3.21</td>
<td>4.03</td>
<td>25.55</td>
<td>8.25   ***</td>
</tr>
<tr>
<td>Children will have better life</td>
<td>4.17</td>
<td>4.51</td>
<td>8.15</td>
<td>4.08   ***</td>
</tr>
<tr>
<td>Complete high school</td>
<td>3.88</td>
<td>4.26</td>
<td>9.79</td>
<td>3.00   **</td>
</tr>
<tr>
<td><strong>Criminal Associations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Committed crime?</td>
<td>1.32</td>
<td>1.31</td>
<td>-0.76</td>
<td>-0.15</td>
</tr>
<tr>
<td>Criminal record?</td>
<td>0.73</td>
<td>0.78</td>
<td>6.85</td>
<td>0.56</td>
</tr>
<tr>
<td>Been to jail?</td>
<td>0.93</td>
<td>0.85</td>
<td>-8.60</td>
<td>-0.98</td>
</tr>
<tr>
<td>Co-offender?</td>
<td>0.27</td>
<td>0.22</td>
<td>-18.52</td>
<td>-0.87</td>
</tr>
</tbody>
</table>

NOTE - paired-sample t-test; *** p < 0.001, ** p < 0.01, * p < 0.05
As the figure demonstrates, post-class averages are consistently lower than pre-class averages for each scale. At both the pre- and post-class surveys, participants scored the highest on criminal rationalization, indicating negative attitudes toward law and other authority figures.

![Figure 2. Pre- and post-class average criminal thinking scores](image)

Participants scored the lowest on entitlement at the pre-class survey, and justification at the post-class survey. Importantly, the difference between the two scores was statistically significant for all of the subscales. The difference for each scale, in percentage change, is displayed in Figure 3 (next page). The largest reduction was in justification, with the extent that participants point to external circumstances declining by over 20 percent between the pre- and post-class survey. Power orientation declined by over 15 percent, and personal irresponsibility and criminal rationalization each declined by over 10 percent. While not shown in either figure, the total Criminal Thinking score was also lower at the end of the class, declining by 13 percent overall.
Future-Oriented Thinking, Goal-Directed Thinking, Self-Esteem

Participants showed marked improvement in both future-oriented and goal-directed thinking. Future-oriented thinking was measured through the Consideration of Future Consequences Scale (CFC). Basically, the CFC measures the extent to which individuals consider the long-term consequences of their behaviors. Low scores on the scale indicate disinterest in considering potential future consequences, while high scores indicate a willingness sacrifice immediate benefits like pleasure or convenience to achieve more desirable future states. As demonstrated in Figure 4,
Future-oriented thinking increased nearly 15% between the pre-class survey and the post-class survey.

Future-oriented thinking was further measured by asking participants to rank the likelihood that they would achieve various life events in the future, ranging from educational attainment, to family and social life. Across the questions, participants indicated significantly greater confidence that they would achieve the events at the end of the class compared to the beginning of the class (see Figure 5). The biggest increase was for freedom of movement, with an overall 30% increase in participants’ perception that their future would not be inhibited by restrictions on where they can live. In addition, participants’ perceptions that their own life would be better than their parents increase by about 25% from the pre- to the post-class. Indeed, almost all of the outcomes saw at least a 10% increase in perceived likeliness in the future.

![Figure 5. Percentage change in expected likelihood of life events.](image-url)
Goal-directed thinking was measured through the State Hope Scale (SHS), indicating how well an individual can formulate and pursue goals for themselves. High scores on this scale indicate a high degree of goal-directed determination (or agency) and the ability to plan out how to achieve goals. Participants showed significant gains on goal-directed thinking, with post-class scores nearly 20% higher than pre-class scores (see Figure 4, page 18).

Finally, self-esteem is measured through the Rosenberg Self-Esteem Scale (RSE). Individuals who score high on the RSE have strong self-respect and consider themselves to be a person of worth. Low scores on the RSE indicate feelings of inadequacy. Among STEPS participants, scores on the RSE were almost 16% higher in the post-class survey compared to the pre-class survey (see Figure 4, page 18).

Self-Control

Individual self-control is variation in which people will avoid criminal acts regardless of the circumstances in which they find themselves. The survey questionnaire contained questions that captured three components of self-control: impulsivity (holding a “here and now” orientation’), risk seeking (being adventuresome rather than cautious), and self-centered orientation (insensitive to others). Each of the three components of self-control is significantly lower at the post-class survey compared to the pre-class survey. These trends are displayed in Figure 6, and show that the largest reduction in impulsivity, risk seeking, and self-centered orientation occurred post-class.

Self-esteem nearly 16% higher after STEPS.
was in the subscale of impulsivity (down about 19%), but each of the three subscales was reduced by at least 15% from the pre- to the post-class survey.

**Criminal Associations**

Participants were asked to think about four individuals they would anticipate spending time with once released from prison. For each individual, participants were asked if this person had committed crime, had a criminal record, been to jail, or was a co-offender of the participant. For both the pre-class and post-class survey, responses for each questions were summed for a scale that could vary from 0 (no persons identified as criminal associates) to 4 (all persons identified as criminal associates). The comparison of the pre-class and post-class scores on this measure indicate little change in the number of individuals in a participant’s network who are crime involved (see Figure 7). The most common characteristics of a participant’s network was a history of crime (with just over 1 out of 4 indicated at each interview). Few participants indicated that they would anticipate associating with co-offenders at either the pre- or post-survey.

![Figure 7. Pre- and post-class reports of crime involvement by close associates.](image-url)
Summary of Cognitive Thinking Scales

In sum, the results comparing cognitive scales at the pre-class survey with cognitive scales at the post-class survey show results consistent with the aims of the STEPS curriculum. Participants measured significantly lower on criminal thinking, and significantly higher on correlates of criminal thinking and behavior including self-control, self-esteem, future-oriented thinking, and goal-directed thinking. Participants also displayed greater confidence that they would be able to achieve various outcomes in the future such as having freedom of movement or being in a better position compared to their parents.

Behavioral Outcomes

Two sources of administrative data were utilized for a preliminary look at behavioral outcomes among STEPS participants. The first is infraction data extracted from OMIS on participants who completed the pre-class survey questionnaire. The second is recidivism data based on a combination of (1) parolee data extracted from OMIS and (2) a database of STEPS graduates from 2009 to 2014.

Institutional Infractions

An inmate’s record of institutional infractions provides a snapshot of their behavior across time. Among STEPS participants, infractions were examined in the period before and after the start of the first class. The pre-class infraction period starts 18 months before the start of the first class and goes up to 6 months before the start of the first class. The post-class infraction period starts on the date of the pre-class survey and goes through the next 12 months. Of the 228

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1 The original pre-class infraction window was selected because it was understood by the research team that participants needed to maintain a clean record for 6 months before starting STEPS. This was not correct, but there was not an opportunity to adjust the infraction window to cover the 12 months directly before the start of the first class.
participants who completed the pre-class survey, a total of 102 had valid infraction data for both the pre- and post-class infraction period.

The infraction records for these 102 inmates were examined along two dimensions: total infractions and infraction days. The combination was used because a long record of infractions could demonstrate many things. For example, it could reflect lots of single infractions accrued frequently (i.e., lots of infraction days), or it could reflect a single day with several infractions. Averages for both infractions and infraction days for the 102 eligible participants are displayed in Figure 8. Both indicators are lower in the period following the start of STEPS. Combined, participants logged 119 infractions before STEPS, or 1.17 per participant. This declined to 48 infractions after the start of STEPS, or 0.47 per participant. Infraction days were also lower after STEPS, although not quite to the same magnitude. There was a 52% reduction in infraction days from the pre-STEPS period (63 total infraction days) to the post-STEPS period (30 infraction days).\(^2\) It is important to note, however, that most participants had no infractions before or after STEPS. Almost three-quarters did not have any infractions in the pre-STEPS period, and almost 80% were infraction free in the post-STEPS period.\(^2\)

\(^2\) A Wilcoxon Sign Test indicated that the number of infractions was significantly lower in the post-STEPS period, compared to the pre-STEPS period. The decline in the number of infraction days neared, but did not reach, conventional levels of statistical significance.
**Recidivism**

Between 2009 and 2014, under a prior version of the STEPS curriculum, a total of 770 inmates were recorded as having graduated STEPS. These records were maintained by Montana Correctional Enterprises. The breakdown of graduates across time is shown in Table 5. At least 125 inmates graduated STEPS each year between 2009 and 2012, with the numbers declining to 57 graduates in 2014. Recidivism information for this group can be determined by utilizing administrative data from the Offender Management Information System (OMIS). According to this data, a total of 3,250 individuals were released to parolee supervision in Montana between 2009 and 2014. Identification numbers were successfully matched across these data sources for 399 (52%) of all STEPS graduates.

Using the MDOC definition of recidivism, it is found that 38.1% of these STEPS graduates recidivated within three years of release. Similarly, 37.6% of those parolees who did not complete STEPS recidivated during this same period. The difference between the recidivism rates is not statistically significant. That is, there is no evidence in these data that recidivism rates are different for those who do and do not complete STEPS. The average time to recidivism between the two groups is also similar. Among those who return to prison, the STEPS graduate was under supervision for 20.8 months,

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
</tr>
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<tbody>
<tr>
<td>2009</td>
<td>164</td>
</tr>
<tr>
<td>2010</td>
<td>197</td>
</tr>
<tr>
<td>2011</td>
<td>155</td>
</tr>
<tr>
<td>2012</td>
<td>125</td>
</tr>
<tr>
<td>2013</td>
<td>72</td>
</tr>
<tr>
<td>2014</td>
<td>57</td>
</tr>
</tbody>
</table>
compared to 21.4 for those who did not complete STEPS.

We urge caution in the interpretation of these results, however, as the recidivism study design would surely fail to meet even the minimum standards of an evidenced-based practice. Without a treatment or control group, any differences (or non-differences) cannot be attributed to STEPS with confidence. As an example, take the offense profiles of parolees who did and did not complete STEPS (while confined) during this period. The three most common offenses among these released STEPS graduates were property (22%), violent (21%), and sex (20%). This is a smaller percentage of property offenders, and higher percentages of violent and sex offenders when compared to all other parolees released during this period. Among the rest of the parolees, 28% were property offenders, 17% were violent offenders, and just 8% were sex offenders. In other words, the two groups are not necessarily comparable. We come back to this issue in more detail in the Discussion.

Participant Impressions

At the end of the post-class survey, STEPS participants were given the opportunity to provide some open-ended feedback on the usefulness and effectiveness of the course. Specifically, participants were asked three open-ended questions:

- Did you find the curriculum useful? Why or why not?
- How will this curriculum impact you in the future?
- Would you recommend this curriculum to other inmates at Montana State Prison?

The research team reviewed the responses to these questions and prominent themes for each questions are highlighted below. Where possible, we highlight responses that identify specific components of STEPS that participants found especially valuable. In general, participants
expressed a lot of optimism about the curriculum, and felt that it should be made widely available (inside and outside of prison).

**Question 1: Did you find the curriculum useful?**

Participants highlighted several different features of STEPS that they found useful. For example, multiple participants mentioned how useful they found the goal-setting components of STEPS. According to one participant, goal setting was discovered during STEPS:

> Yes, I never set goals in my entire life until now. Now I write affirmations, picture my future and visualize success. It motivates me and excites me and I really am going to be successful.

Another participant, who already views himself as goal-oriented, also stressed the important of visualizing future goals:

> Yes, I have been goal-oriented for years, but Lou opened my eyes to see that all goals are realistic. I now visualize myself as an electrician, living in my own home and being a pillar of my community. I am a dependable, hard-working, loyal and honest individual that is making a difference in my life and the lives of those around me.

This participant also clearly highlights the goal of STEPS to replace the criminal self-image with a prosocial self-image.

Participants also highlighted how STEPS helped them redefine themselves and their circumstances. One participant, for example, mentioned how STEPS has helped him make sense of his previous decisions:
It has really helped me to change the way I perceived life in general. That I’m not just stuck in the type of life that I’ve always lived. That I am a better, smarter, more driven individual than what I have previously been led to believe in life.

For many, these new perceptions were tied to increased self-esteem and a more positive self-image. For instance, one participant discussed how STEPS helped him see himself in a new light:

I have found it useful, yes. I now have the tools to see myself as a good person who has made mistakes. I needed to learn from them and never do it again. I now have higher self-esteem and a better self-image.

These statements show how STEPS is helping inmates to view their circumstances in a new light, and this is a hallmark of cognitive-based treatment.

Question 2: How will this curriculum impact you in the future?

When asked to identify specifics of STEPS that participants would use in the future, the importance of affirmations and specific visions for the future were repeatedly highlighted. Many participants tied these to specific future outcomes:

I will use affirmations to complete my goals in becoming a certified fitness trainer and nutrition specialist and opening my own gym in the future. And becoming a successful part of the community and living a very good life.

Another participant tied this to goal-setting:

It is my future! I am going to be successful and own a welding company by setting small goals every day and achieving each goal step till I sit where I want to be.
This sentiment was echoed by another participant, who recognized the value of specific goals instead of abstract views of the future:

> It has made me much more aware and mindful of the importance of having
congrete and vivid goals to visualize and work for, rather than some abstract and
indistinct idea of what I [sic] want, which I believe will make my pursuing of
these goals more efficient.

**Question 3: Would you recommend this curriculum to other inmates at Montana State Prison?**

Participants felt strongly that STEPS can have broad application and a positive impact on everyone from criminals to executives. Multiple participants noted that STEPS would be helpful in other settings outside of corrections:

> This curriculum provides the tools and information that is necessary [sic] for
positive, constructive behavior. This information is essential to anyone and
everyone, inmates or all the way up to successful business people, setting goals,
reevaluating them and moving forward to achieving them is a must in everyone’s
[sic] life!

Finally, multiple participants stated that they believed STEPS – and the focus on goal setting and a positive self-image – was an especially useful program among available options:

> Absolutely. Out of all the treatment and rehabilitation [sic] offered/required of us,
this material addresses a deeper and more fundamental obstruction to a better
life. I believe the course and applied outcomes of this guides one out of the
darkest parts of their soul. Rather than starting at problems it offers the solution.
These, and other, statements make it clear that participants are gaining the intended skills associated with STEPS. In particular, the goal-setting and visualizations inherent in the curriculum resonate with many of the graduates. Furthermore, and closely aligned with central concepts of CBT, participants described how the STEPS curriculum helped them make sense of past decisions, and – hopefully – carve out a new path forward.
Conclusion & Discussion

Within this section, (1) study results are summarized, (2) limitations are discussed (primarily in relation to standards for evidence-based programming), and (3) potential extensions and areas of future research are outlined.

Summary of Results

As the whole, the results show that the STEPS curriculum has the potential to meaningfully influence antisocial cognitions. This is the primarily conclusion and contribution of the study, and will be published in print in the near future (Warner, Conley, & Murphy, forthcoming). Reductions in criminal thinking, especially, are important because antisocial cognitions are a core feature of the risk-needs-responsivity (RNR) model. In addition, increases in self-esteem and improvements in goal-directed and future-oriented thinking indicate that – in expectation with the STEPS approach – criminal thinking is being replaced with prosocial thinking. Working under the assumption that thinking precedes behavior (Walters, 2006), there is certainly initial evidence that the STEPS curriculum could be a valuable correctional tool.

Initial – and very preliminary – behavioral results do not paint a consistent picture. An examination of institutional infractions in the time period before and after program completion shows some evidence of declines in misconduct among STEPS graduates. These trends, though, must be considered alongside the finding that the majority of participants had no infractions before starting STEPS. Further, the recidivism rate of graduates of a prior version of STEPS was very similar to individuals released from prison during the same period and who had not completed STEPS. That is to say that there is no evidence from the data used here to conclude that STEPS reduces recidivism.
**Study Limitations**

Results from this study provide evidence that STEPS has potential as a valuable tool in reducing antisocial cognitions, and increasing self-esteem and prosocial thinking. That said, these results do not provide any direct evidence that STEPS participation reduces recidivism. By reducing antisocial cognitions, there is evidence of a theoretical link between STEPS and behavioral outcomes. That is, antisocial behavior is largely unlikely in the absence of antisocial thoughts and cognitions. As covered below, this link should be subjected to further scrutiny.

In particular, the current study lacks the experimental (or quasi-experimental) design needed to make conclusions that are required of evidence-based programming. There was no assignment to a treatment or control group, and so it is difficult to distinguish between results driven by STEPS versus results driven by other characteristics. Rather, all results are based on what would be more accurately described as a convenience sample – that is, based on individuals who voluntarily signed-up to enroll in STEPS.

This is largely to say that the findings observed here could be driven by features or characteristics beyond STEPS. It could be, for instance, that individuals who enroll in STEPS are especially motivated to make changes, and that this motivation (or, in statistical terminology, selection into treatment) drives the results. In addition, changes observed in STEPS graduates could be the result of maturation effects. That is, there may be a natural tendency for criminal thinking or institutional misconduct to decline as individuals age or spend longer periods of time incarcerated. Finally, we were not able to isolate STEPS from other treatment or programming that may have been happening concurrently with STEPS.

These same limitations largely apply to the reductions in institutional infractions. While the trends are promising, there is simply not enough evidence to rule out these competing
explanations. In addition, both before and after STEPS participation, infractions are driven in large part by a small number of inmates (approximately 25% in this case). So the majority of participants begin STEPS with a clean institutional record.

Finally, that recidivism rates of graduates of a prior version of STEPS are not significantly different (higher or lower) than recidivism rates of other parolees should not be taken as evidence of ineffectiveness. Again, minus treatment and control groups, any associations are limited to just that: associations. Nothing can be said about the exact (or causal) nature of a relationship in the absence of experimental designs. Furthermore, because graduates completed STEPS while incarcerated, it is not clear how STEPS might affect recidivism among individuals being supervised in the community. As such, additional research could extend these findings in ways that are described next.

**Avenues for Future Research**

Future research on the effectiveness of STEPS should be guided by standards for evidence-based practices (EBP). As such, it is useful to briefly review some of the requirements of EBP, as outlined through the National Institute of Justice program, CrimeSolutions.gov (see Table 6, next page). The process starts with programs either being identified or nominated for review. An initial screening weeds out programs that do not align with NIJ goals, and then a literature review is used to gather all of the available evidence on a program. A Lead Researcher then selects three studies to be used as the evidence base, and there is a strong emphasis here on evaluations that use rigorous methodologies including randomized field experiments and that have been published in peer-reviewed scientific journals. Each study is reviewed, classified, and then the entire program is classified as either Effective, Promising, or having No Effects.
Currently, the results of this study would be more accurately described as *research informed* because they establish a correlational relationship between STEPS and prosocial outcomes (Blueprints for Healthy Youth Development, 2015). But minus a control group, the findings and design fall short of the rigorous standards used by CrimeSolutions and others. This is not to say that these findings have no merit. Indeed, findings from this study have been accepted for
publication in the peer-reviewed scientific journal *Criminal Behaviour and Mental Health* (Warner et al., *forthcoming*). That particular manuscript focuses on criminal thinking shifts across the course of STEPS participation. While it could become part of the necessary evidence base, additional studies with a more rigorous methodology would be required to form a more convincing evidence base.

To start accruing the necessary evidence, future evaluations of STEPS could build on this study in multiple ways. First, a control group could be created to provide additional evidence about cognitive change. Researchers could identify inmates who have not participated in STEPS, and administer the same survey used in this study. It would be important to attempt to “balance” the samples, so that the control groups had similar characteristics to those who have completed STEPS (in terms of features such as age, offenses, or criminal history). A baseline survey would provide evidence if STEPS participants think differently than other inmates. That is, is there something unique about the ways that STEPS participants think, and is this different than other inmates? A follow-up survey would provide evidence on cognitive shifts that occur for everyone due to aging or adjustment to prison. That is, does criminal thinking decline among everyone, or just those who participate in cognitive-based programs like STEPS? The gap between surveys should be approximately the same as the gap between the pre- and post-class survey used here (approximately 6 weeks). Together, these additional cognitive surveys would provide valuable evidence on how STEPS participants think compared to other inmates.

Second, there are multiple options to more explicitly examine the relationship between STEPS and recidivism. The evidence presented here was inconclusive, especially given that the STEPS curriculum has been substantially modified since the original graduates in 2009. Special attention would need to be directed here to the timing of STEPS completion. For instance,
STEPS might be less effective for an inmate that graduated three years before being released compared to an inmate that graduated three months before being released. As such, if administered during secure confinement, it would be useful to align STEPS with expected release date (to the extent possible). This would ensure that release from confinement closely follows graduation from STEPS. In addition, it would be useful to administer STEPS to individuals being supervised in the community under probation or parole. As an event, recidivism occurs while living in communities, and so it is possible that STEPS would be most beneficial among those who can put the tools into action while in the community. And in both instances, evaluations need to construct treatment and control groups so that direct comparisons can be made between those who do and do not complete STEPS. This would start with an identification of the potential group of participants, followed by random assignment of some participants who are enrolled in STEPS and some who are not. Research designs also exist that allow for the control group (those who do not complete STEPS) to ultimately receive the treatment (see, for instance, the stepped-wedge design).

**Conclusion**

Correctional practitioners and staff face the daunting dual challenges of confinement and rehabilitation. In the ongoing search for “what works” in correctional programming, a growing emphasis has been placed on deficiencies and risk factors that can be targeted for change. Included in these risk factors are antisocial cognitions that support and rationalize offending and other antisocial behavior (Andrews et al., 2006). This current study, based on measures of criminal and prosocial thinking patterns, demonstrates that the STEPS curriculum has the potential to change the ways that offenders think about themselves and their circumstances. This
is an especially promising finding because the STEPS curriculum is delivered across 15 total sessions. This could make STEPS a valuable tool for practitioners with smaller windows of time to deliver programming. In comparison, perhaps the most well-known cognitive-based treatment program, Thinking for a Change (T4C), is delivered across 25 lessons. If future research establishes that STEPS has similar behavioral effects as T4C (Golden, Gatchel, & Cahill, 2006; Lowenkamp, Hubbard, Makarios, & Latessa, 2009), then correctional practitioners may find themselves with a more time-effective treatment tool than commonly available. The findings from this study begin to form the evidence base on the overall effectiveness of STEPS, but additional research and evaluations are needed to establish STEPS as an evidence-based practice.
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Montana Department of Corrections.


https://doi.org/10.1002/cbm.50


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Finally, thank you to all of the study participants, without whose willingness and insight this project would have not been possible.
Appendix A - Survey Scale Questions

Criminal Thinking Scales

- **Entitlement** (EN – conveys a sense of ownership and privilege and misidentifies wants as needs. Offenders who score high on the EN scale believe that the world “owes them” and they deserve special consideration)
  - You deserve special consideration.
  - You have paid your dues in life and are justified in taking what you want.
  - You feel you are above the law.
  - It is okay to commit crime in order to pay for the things you need.
  - Society owes you a better life.
  - Your good behavior should allow you to be irresponsible sometimes.
  - It is okay to commit crime in order to live the life you deserve.

- **Justification** (JUS – reflects a thinking pattern characterized by the offenders’ minimizing the seriousness of antisocial acts and by justifying actions based on external circumstances. High scores on this scale suggest that antisocial acts are justified because of perceived social injustice)
  - You rationalize your irresponsible actions with statements like “Everyone else is doing it, so why shouldn’t I?”
  - When questioned about the motives for engaging in crime, you justify your behavior by pointing out how hard your life has been.
  - You find yourself blaming the victims of some of your crimes.
  - Breaking the law is no big deal as long as you do not physically harm someone.
  - You find yourself blaming society and external circumstances for the problems in your life.
  - You justify the crimes you have committed by telling yourself that if you had not done it, someone else would have.

- **Personal Irresponsibility** (PI – assesses the degree to which an offender is willing to accept ownership for criminal actions. High scores suggest an offenders’ unwillingness to accept responsibility and are associated with the offender’s casting blame on others)
  - You are in prison now because you had a run of bad luck.
  - The real reason you are in prison is because of your race.
  - Nothing you do here is going to make a difference in the way you are treated.
  - You are not to blame for everything you have done.
  - Laws are just a way to keep poor people down.
  - You may be a criminal, but your environment made you that way.

- **Power Orientation** (PO – measure of need for power and control. High scores associated with an outward display of aggression in an attempt to control the external environment and manipulation of others)
  - When people tell you what to do, you become aggressive.
  - When not in control of a situation, you feel the need to exert power over others.
  - You argue with others over relatively trivial matters.
  - If someone disrespects you then you have to straighten them out, even if you have to get physical with them to do it.
  - You like to be in control.
  - You think you have to pay back people who mess with you.
The only way to protect yourself is to be ready to fight.

- **Cold Heartedness** (CH – addresses callousness, and high scores on this scale reflect a lack of emotion involvement in relationships with others) – REVERSE SCORED
  - You get upset when you hear about someone who has lost everything in a natural disaster.
  - Seeing someone cry makes you sad.
  - You are sometimes so moved by an experience that you feel emotions that you cannot describe.
  - You feel people are important to you.
  - You worry when a friend is having personal problems.

- **Criminal Rationalization** (CN – displays a generally negative attitude toward the law and authority figures. Offenders who score high on this scale view their behavior as being no different than the criminal acts they believe are committed every day by authority figures)
  - Anything can be fixed in court if you have the right connections.
  - Bankers, lawyers, and politicians get away with breaking the law every day.
  - This country’s justice system was designed to treat everyone equally (REVERSE SCORED)
  - Police do worse things than do the “criminals” they lock up.
  - It is unfair that you are imprisoned for your crimes when bank presidents, lawyers, and politicians get away with their crimes.
  - Prosecutors often tell witnesses to lie in court.
  - Scores for each scale are obtained by summing responses to its set of items (after reversing scores on reflected items by subtracting the item response from 6), dividing the sum by number of items including, and multiplying by 10 in order to rescale final scores so they range from 10 to 50. Responses on a 5-point Likert-type scale (1 = disagree strongly, 2 = disagree, 3 = uncertain, 4 = agree, 5 = agree strongly)

**Consideration of Future Consequences**

- I consider how things might be in the future, and try to influence those things with my day to day behavior.
- Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.
- I only act to satisfy immediate concerns, figuring the future will take care of itself.
- My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.
- My convenience is a big factor in the decisions I make or the actions I take.
- I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.
- I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years.
- I think it is more important to perform a behavior with important distant consequences than a behavior with less important immediate consequences.
- I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.
• I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.
• I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.
• Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.
• Responses on a 5-point Likert-type scale (1 = extremely uncharacteristic to 5 = extremely characteristic). Sum all measures.

Self-Control
• Impulsivity
  o I often act on the spur of the moment without stopping to think.
  o I don’t devote much thought and effort to preparing for the future.
  o I often do whatever brings me pleasure here and now, even at the cost of some distant goal.
  o I’m more concerned with what happens to me in the short run than in the long run.
• Risk seeking
  o I like to test myself every now and then by doing something a little risky.
  o Sometimes I will take a risk just for the fun of it.
  o I sometimes find it exciting to do things for which I might get in trouble.
  o Excitement and adventure are more important to me than security.
• Self-centered orientation
  o I try to look out for myself first, even if it means making things difficult for other people.
  o I’m not very sympathetic to other people when they are having problems.
  o If things I do upset people, it’s their problem not mine.
  o I will try to get the things I want even when I know it’s causing problems for other people.
• Responses on a 4-point Likert-type scale (1 = strongly agree, 2 = disagree somewhat, 3 = agree somewhat, 4 = strongly agree). Sum responses for each scale.

Rosenberg Self-Esteem Scale
• On the whole, I am satisfied with myself.
• At times I think I am no good at all.
• I feel that I have a number of good qualities.
• I am able to do things as well as other people.
• I feel I do not have much to be proud of.
• I certainly feel useless at times.
• I feel that I’m a person of worth, at least on an equal plane with others.
• I wish I could have more respect for myself
• All in all, I am inclined to feel that I am a failure.
• I take a positive attitude toward myself.
• Items 2, 5, 6, 8, 9 are reverse scored. Give “Strongly Disagree” 1 point, “Disagree” 2 points, “Agree” 3 points, and “Strongly Agree” 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

State Hope Scale
• If I should find myself in a jam, I could think of many ways to get out of it.
• At the present time, I am energetically pursuing my goals.
• There are lots of ways around any problem I am facing now.
• Right now, I see myself as being pretty successful.
• I can think of many ways to reach my current goals.
• At this time, I am meeting the goals that I have set for myself.
• Responses on an 8-point scale: 1 = definitely false; 2 = mostly false; 3 = somewhat false; 4 = slightly false; 5 = slightly true; 6 = somewhat true; 7 = mostly true; 8 = definitely true. Sum all responses.

Perceived Life Chances (responses from 1 [extremely unlikely] to 5 [extremely likely])
• You will have graduated from high school?
• You will go to college?
• You will have a job that pays well?
• You will be able to own your own home?
• You will have a job that you enjoy doing?
• You will have a happy family life?
• You will stay in good health most of the time?
• You will be able to live wherever you want in the country?
• You will be respected in your community?
• You will have friends you can count on?
• Life will turn out better for you than it has for your parents?
• Your children will have a better life than you had?
• Responses on a 5-point scale from 1 (extremely unlikely) to 5 (extremely likely). Sum all responses.

Measure of Criminal Associates
Thinking about the four (4) adults that you will spend the most time with once you are released from prison and back in the community. Same series four times (one for each associate)
• Has this person ever committed a crime?
• Does this person have a criminal record?
• Has this person ever been to jail?
• Has this person tried to involve you in a crime?
• Responses include no (0) and yes (1). Sum responses for each questions, respectively.