Criminal thinking shifts among male prisoners participating in a cognitive-based education programme

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ABSTRACT

Background Many prisoners rationalise criminal behaviour, and this type of thinking has been linked to recidivism. Correctional programmes for modifying criminal thinking can reshape how offenders view themselves and their circumstances.

Aim Our aim was to test whether participation in a cognitive-based curriculum called Steps to Economic and Personal Success (STEPS) was associated with changes in criminal thinking.

Methods The STEPS curriculum is delivered in 15 video-based facilitated classes. A pre-intervention/post-intervention survey design was applied to 128 adult male prisoners who completed the programme. Criminal thinking was measured by the Texas Christian University Criminal Thinking Scale, a self-report instrument with the six domains: entitlement, justification, power orientation, cold heartedness, criminal rationalisation and personal irresponsibility.

Results Participants had lower scores in most of the criminal thinking domains after the intervention than before, with largest reductions in justification and power orientation.

Conclusion Findings provide evidence that attitudes to crime can be changed in a correctional setting, and the programme under study shows promise as an effective intervention for changing these attitudes among prisoners. Future research should build on these findings to examine whether and how such changes are related to desistance from offending behaviours. Copyright © 2017 John Wiley & Sons, Ltd.

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Introduction

Criminal thinking has been defined as ‘distorted thought patterns that support offending behaviour by rationalising and justifying how an individual acts’ (Taxman et al., 2011, p. 174). It is important to identify and try to reduce criminal thinking because it has been shown to have at least a modest association with recidivism (Walters, 2014; Caudy et al., 2015; Walters and Lowenkamp, 2015; Folk et al., 2017). Furthermore, as a mutable construct tied to emotional intelligence (Walters et al., 2002; Megreya, 2013), reduction in criminal thinking can increase overall treatment readiness and make individuals more amenable to other important changes (McMurran and Ward, 2010). It is no surprise, then, that criminal and anti-social thinking are core features of correctional rehabilitation frameworks like the risk-needs-responsivity model (Andrews et al., 2006).

An educational-based programme that draws on features of cognitive-behavioural therapy, the Steps to Economic and Personal Success (STEPS) curriculum has been devised to foster cognitive change across a series of 15 video-based-facilitated units. Participants are taught to reframe their view of themselves, their circumstances and how they will respond to their environment in the future. Our research question was does criminal thinking reduce after exposure to the STEPS curriculum?

Method

The study was approved by the Institutional Review Board at Montana State University.

Participants

Participants were adult male offenders incarcerated in a state prison in the Western United States of America (USA). Participation in STEPS is voluntary and open to all interested inmates in the low-security and medium-security portions of the facility. Classes are offered approximately quarterly, and the study period covered all classes between January 2015 and December 2016.

Measures

We measured criminal thinking using the Texas Christian University Criminal Thinking Scales (CTS), a self-report instrument measuring criminal thinking in six domains: entitlement, justification, power orientation, cold heartedness, criminal rationalisation and personal irresponsibility (Knight et al., 2006). Each question was answered using a 5-point Likert scale, and scores were obtained for
each subscale by computing the average for each subscale and multiplying by 10. Resulting subscale scores ranged from a low of 10 to a high of 50, with higher scores indicating greater criminal thinking. The average Cronbach’s alpha across the subscales was 0.73 for the pre-intervention men and 0.77 for the post-intervention men.

**Procedures**

The STEPS programme starts with each participant receiving a 184-page manual, designed to be accessible for those with an eighth grade reading level (approximately 13–14 years old) or higher. In small groups, participants work through the manual in 15 classes, with the help of a trained facilitator. These classes rely on a combination of video and audio sessions, written materials, exercise, practice interviews and self-assessment tools to foster cognitive change. Limits on space prohibit detailed description of STEPS; the curriculum syllabus can be found at: https://drive.google.com/a/insideresults.com/file/d/0B197tOmRJVQNVZVWXRiQidCTk0/view?usp=drivesdk.

All course facilitators were trained and instructed to deliver a questionnaire at the beginning of the first class and then again at the end of the last class. We examined criminal thinking shifts by comparing average pre-class scores with average post-class scores using paired samples t-tests, limiting our analyses to the 128 participants with valid responses to all pre-class and post-class CTS questions. Finally, because our analyses relied on seven total mean comparisons (the total CTS score and scores for each of six domains), the risk of falsely identifying a significant difference is slightly elevated. We accounted for this by using a Bonferroni adjustment. This involved dividing the standard level for significance ($p < 0.05$) by the number of comparisons to obtain an adjusted critical level for significance ($p < 0.007$).

**Results**

**Sample description**

A total of 188 participants (across 15 classes) received the pre-course evaluation; 141 (75%) of these also completed the post-course evaluation. Thirteen participants had to be excluded from analyses because of missing values on the criminal thinking questions, yielding a final sample of 128 participants. On average, each class in the course had 12 participants (mean: 12.18, SD: 2.54; range of 8–17). The average STEPS completion rate was 64% across the classes and was above 60% in nine of the 15 classes.

The average age of the participants was approximately 38 (range 19–66) years. The most common racial group was White people (83%), followed by Native American (14%) and African American (3%). The most common offence types
were violent (36%), followed by sex (23%) and drug offences (18%). At the time of course enrolment, the average participant had spent 32 months incarcerated (range 2–355 months).

Table 1 shows the criminal thinking scores. Post-course scores are significantly lower than the pre-course scores for all of the CTS domains except entitlement. There is, however, some noteworthy variation in the amount of change. Justification (minimising seriousness and pointing to external circumstances), for example, fell by almost 4 total points (or almost 21% compared with pre-course levels) over the course of the curriculum. Power orientation (manipulating others for power and control), the subscale with the highest pre-course average, also fell by about 4 points (or about a 16% decline from the pre-course level). Indeed, only two of the scales, entitlement and cold heartedness, fell by less than 10% during the course. At the end of the curriculum, participants averaged about 17 total points lower on total criminal thinking, a difference of over 13%.

Discussion

This study represented an initial step in evaluating the effectiveness of a cognitive-based education programme called STEPS. The fall in total criminal thinking and most scale scores was not only statistically significant but may also be practically meaningful as our findings provide further evidence that anti-social cognitions can be reduced under the right circumstances (Walters et al., 2002). There exists at least a modest association between criminal thinking and recidivism, and our results provide support for the notion that repeated measures

| Table 1: Criminal thinking differences between pre-class and post-class surveys among STEPS participants. |

<table>
<thead>
<tr>
<th>Criminal thinking scales</th>
<th>Pre-class Mean</th>
<th>Pre-class SD</th>
<th>Post-class Mean</th>
<th>Post-class SD</th>
<th>Difference Total</th>
<th>Difference %</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entitlement</td>
<td>16.85</td>
<td>5.13</td>
<td>15.80</td>
<td>4.60</td>
<td>−1.05</td>
<td>−6.23</td>
<td>2.40</td>
</tr>
<tr>
<td>Justification</td>
<td>19.15</td>
<td>5.89</td>
<td>15.21</td>
<td>5.03</td>
<td>−3.94</td>
<td>−20.57</td>
<td>6.86*</td>
</tr>
<tr>
<td>Personal irresponsibility</td>
<td>18.54</td>
<td>5.22</td>
<td>16.08</td>
<td>5.90</td>
<td>−2.46</td>
<td>−13.27</td>
<td>5.04*</td>
</tr>
<tr>
<td>Power orientation</td>
<td>24.94</td>
<td>6.84</td>
<td>20.89</td>
<td>5.70</td>
<td>−4.05</td>
<td>−16.24</td>
<td>4.12*</td>
</tr>
<tr>
<td>Cold heartedness</td>
<td>21.05</td>
<td>4.90</td>
<td>19.14</td>
<td>5.62</td>
<td>−1.91</td>
<td>−9.07</td>
<td>4.12*</td>
</tr>
<tr>
<td>Criminal rationalisation</td>
<td>28.41</td>
<td>7.44</td>
<td>24.74</td>
<td>8.74</td>
<td>−3.67</td>
<td>−12.92</td>
<td>5.55*</td>
</tr>
<tr>
<td>Total</td>
<td>128.95</td>
<td>26.29</td>
<td>111.87</td>
<td>26.12</td>
<td>−17.08</td>
<td>−13.25</td>
<td>7.01*</td>
</tr>
</tbody>
</table>

Notes:

* p < 0.007 (Bonferroni-adjusted critical level for significance).
Sample size: 128 participants with valid pre-class and post-class surveys.
of criminal thinking can be an indicator of positive response to correctional programming.

There are some limitations to this naturalistic study. First, STEPS participation was voluntary, and those who participated may have been more amenable to change than those who did not. Second, in lacking a control group, we were unable to separate programme effects from testing effects based on familiarity with the survey instrument. A randomised controlled trial would resolve both these problems. Third, prisoners at the study site may not be representative of the larger prison population in the USA. For instance, African Americans make up a smaller proportion of the facility compared with other states, while Native Americans make up a larger proportion. Finally, our study examined short-term cognitive change only. Further research is needed to determine if or for how long the changes are maintained past the completion of the curriculum. It is also essential to know if STEPS participation improves institutional behaviour and/or, ultimately, if it is associated with reduced likelihood of recidivism. It is, further, crucial to know at what level of changes in CTS scores useful reduction in anti-social behaviour is more likely than not to occur. In other words, how much is the likelihood of an anti-social act reduced as a result of declines in criminal thinking versus other explanations. Criminal activity, such as violence, within an institution is often not a good predictor of that behaviour outside that institution, so if criminal thinking is truly a good mediator of criminal acts, then this approach could be of value in supporting release decisions.

References


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