Measuring Change in Sex Offender Treatment

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Introduction

- Meta-analytic studies have found that sex offender treatment programs are effective at reducing sexual recidivism (Hanson, Bourgon, Helmus, & Hodgson, 2009).
- Most of these studies, however, group offenders based on whether they were in the treatment or comparison group, thereby ignoring individual variability in treatment responses. Some offenders, for example:
  - May be within functional norms at pre-treatment (e.g., do not show problematic intimacy levels) and therefore would be expected to display limited improvement on the treatment target.
  - May simply not have improved on certain positive measures.
- As such, researchers (Friendship, Falshaw, Beech, 2003; Hanson, 1997) suggest that methodologies aimed at assessing individual variability in treatment outcomes would be beneficial to:
  - Estimate the proportion of offenders who benefited from treatment
  - Clarify treatment targets’ relationship with recidivism (e.g., by examining differences in recidivism between those who showed improvement on treatment targets and those who did not)
- The purpose of the study: to examine two methods of treatment change.

Method

Analyses of Change

Group Change: Averaging group changes between pre- and post-treatment scores (ANCOVA)

Clinically Significant Change (Jacobson and Truax, 1991): Examining individual change, while taking into consideration:
- The meaningfulness of the change (i.e., following treatment, do individuals achieve a functional level on the treatment target?)
- Based on statistical cutoffs calculated using norms from non-offenders

Measurement error (i.e., whether the change is statistically reliable, measured by the Reliable Change [RC] Index)
- This method allows each participant to be classified as:
  - Recovered: Displays a functional score at post-treatment and a statistically reliable change (RC > 1.96)
  - Improved: Displays statistically reliable change (RC < 1.96), but does not pass the functional cutoff
  - Unchanged: Does not have statistically reliable change (RC < 1.96)
  - Deteriorated: Has clinically reliable change (RC > 1.96), but in the opposite direction (i.e., become more problematic)

Participants

- Canadian sample of 313 adult male sexual offenders
- All participating in the low or moderate intensity National Sex Offender Program (NSO/P)

Table 1. Sample Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>43.65</td>
<td>12.70</td>
<td>313</td>
</tr>
<tr>
<td>Aggregate Sentence Length</td>
<td>3.84</td>
<td>2.50</td>
<td>293</td>
</tr>
<tr>
<td>Static-99</td>
<td>2.88</td>
<td>2.03</td>
<td>235</td>
</tr>
<tr>
<td>SIR-R2</td>
<td>9.51</td>
<td>9.51</td>
<td>254</td>
</tr>
</tbody>
</table>

Note: SIR-R = Statistical Information Recidivism-Retrieved. Sample size fluctuates as a function of missing data. Twenty participants (6.4%) were retesting intermediate sentences.

Measures

- STABLE 2000 (Hanson & Harris, 2000): a measure of dynamic risk for sexual recidivism, MOLEST and RAPE scales
- Jacobson and Truax (1991)

Table 2. Group change associated with treatment completion

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre-mean (SD)</th>
<th>Post-mean (SD)</th>
<th>N</th>
<th>ES (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STABLE 2000</td>
<td>5.11 (1.27)</td>
<td>4.49 (2.83)</td>
<td>97</td>
<td>-0.49 (−1.70, 0.72)</td>
</tr>
<tr>
<td>MOLEST</td>
<td>64.81 (17.53)</td>
<td>53.87 (14.83)</td>
<td>198</td>
<td>-0.67 (−0.81, −0.54)</td>
</tr>
<tr>
<td>RAPE</td>
<td>60.14 (15.23)</td>
<td>49.22 (13.39)</td>
<td>214</td>
<td>-0.75 (−0.88, −0.62)</td>
</tr>
<tr>
<td>UCLA</td>
<td>41.37 (27.63)</td>
<td>37.51 (9.55)</td>
<td>257</td>
<td>-0.41 (−0.62, 0.48)</td>
</tr>
<tr>
<td>MSIS</td>
<td>135.14 (23.73)</td>
<td>123.98 (25.25)</td>
<td>262</td>
<td>0.03 (−0.05, 0.15)</td>
</tr>
</tbody>
</table>

Note: ES = Standardized Mean Gain Effect Size, the standardized magnitude of the pre-post change and enables size effect comparison between measures. ^ p < .05.

Table 3. Individual change associated with treatment completion: Clinically Significant change

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>STABLE 2000</td>
<td>2.93</td>
<td>1.21</td>
<td>6.57</td>
<td>1.52</td>
<td>4.54</td>
<td>.74</td>
<td>1.10</td>
</tr>
<tr>
<td>MOLEST</td>
<td>51.80</td>
<td>10.39</td>
<td>68.56</td>
<td>17.59</td>
<td>58.02</td>
<td>.84</td>
<td>9.95</td>
</tr>
<tr>
<td>RAPE</td>
<td>55.90</td>
<td>18.00</td>
<td>66.66</td>
<td>15.63</td>
<td>58.45</td>
<td>.86</td>
<td>8.27</td>
</tr>
<tr>
<td>UCLA</td>
<td>37.06</td>
<td>19.01</td>
<td>41.49</td>
<td>10.25</td>
<td>39.34</td>
<td>.94</td>
<td>3.59</td>
</tr>
<tr>
<td>MSIS</td>
<td>137.80</td>
<td>21.48</td>
<td>124.50</td>
<td>20.30</td>
<td>131.54</td>
<td>.96</td>
<td>5.88</td>
</tr>
</tbody>
</table>

Note: Dysfunctional norms are based on the NaSOP sample. Functional norms are based on non-offenders, with the exception of the STABLE 2000, which is based on the NaSOP sample with scores less than 10 (i.e., low risk; p = .46). The reliability value is the test-retest correlation, usually derived from the literature.

- Figure 4 through 8 presents the treatment status of participants for each measure.

Results

- This study found significant group changes in all measures, with the exception of social intimacy (MSIS)
- The STABLE 2000 was moderated by treatment intensity, with the moderate intensity group having greater treatment gains
- The UCLA and MOLEST scales were moderated by the presence of a child victim, with those with child victims showing a significantly greater reduction in cognitive distortions and loneliness than those without child victims
- This study used the Jacobson and Truax method (1991) to assess the reliability of an individual’s pre- and post-treatment change and the meaningfulness of the change through the use of functional norms
- Those who displayed functional scores at pre-treatment were more likely to be unchanged than those classified as dysfunctional
- About half of offenders showed significant improvement when defining non-offenders as the functional group
- The classification of child victim continued to be a significant moderator for both the MOLEST and UCLA scale. Participants with child victims were significantly more likely to be classified as improved or recovered than those without child victims

References


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