Response Distortion in Forensic Inpatients with Antisocial Personality Disorder on the MMPI-2-RF Validity Scales

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INTRODUCTION

According to the DSM-5, individuals diagnosed with antisocial personality disorder (ASPD) are at increased risk for malingering compared to those without the disorder.1 Research has shown conflicting data on whether ASPD should be considered a risk factor for response distortion:

- Kucharski et al. (2006) found criminal defendants diagnosed with ASPD scored significantly higher than those without ASPD on MMPI-2 overreporting Validity Scales and other validity indicators.
- Pierson et al. (2011) did not find evidence that individuals with ASPD were more likely to malinger than others.2

This study examines whether ASPD can be supported as a risk factor for overreporting in an incompetent to stand trial (ICST) forensic inpatient sample, where individuals may have significant motivation to overreport.

We also examine whether there is empirical evidence for ASPD as a risk factor for underreporting in a not guilty by reason of insanity (NGRI) forensic inpatient sample, where individuals may have significant motivation to underreport.3

HYPOTHESES

As compared to ICST patients without ASPD, we expected patients adjudicated ICST and diagnosed with ASPD would score higher on:

- MMPI-2-RF overreporting Validity Scales (F-r, Fp-r, Fs, FBS-r, RBS), especially those specific to overreported psychopathy (F-r, Fp-r)

As compared to NGRI patients without ASPD, we expected patients adjudicated NGRI and diagnosed with ASPD would score higher on:

- MMPI-2-RF underreporting Validity Scales (L-r, K-r), especially the scale designed to measure underreporting of psychopathy (K-r)

METHOD

1. Participants. Using archival records of forensic psychiatric inpatients admitted to a large maximum-security state psychiatric hospital, patients were separated into two groups: ICST and NGRI. A total of 146 patients were excluded due to non-content-based invalid responding (CNS ≤ 18 [raw], VRIN-r ≤ 80T, and/or TRIN-r ≥ 80T).

2. Measure. As part of forensic or clinical evaluations at the hospital, patients in both groups completed the MMPI-2 or MMPI-2-RF. When necessary, MMPI-2 items were rescoped into MMPI-2-RF scales.6

3. Procedure. Uncontaminated diagnoses from the date of testing were used to identify patients with and without antisocial personality disorder diagnoses that were rendered without access to MMPI-2-RF test results.

- Although a uniform procedure was not used across the hospital, diagnoses were rendered by a treatment team consisting of a psychiatrist, psychologist, social worker, and other clinical staff and based upon clinical records and observations made in this 24-hour facility.

RESULTS

As anticipated, results from the ICST sample showed statistically and practically significant differences, with patients diagnosed with ASPD scoring higher than those with out the disorder on overreporting scales (Table 1).

- Results from the NGRI sample did not show an anticipated pattern of greater underreporting in ASPD patients. There were no statistical differences and very small practical differences (Table 2).

DISCUSSION

- This study supports the DSM-5 premise that ASPD is a risk factor for overreporting in the presence of an incentive to appear mentally ill.
- In the NGRI population, where there is little to gain from overreporting but potential gains from underreporting, scores were similar to non-ASPD patients, suggesting that ASPD is not a risk factor for underreporting in this context.
- Limitations & Future Directions. In addition to the small sample sizes of ASPD patients, diagnoses were not determined using a standardized method. Further studies would benefit from larger samples of ASPD patients as well as standardized assessments for diagnoses.

- This research should be extended by considering factors that distinguish ICST and NGRI patients, such as symptom severity and time in treatment, as well as classification accuracy metrics.4

REFERENCES & ACKNOWLEDGMENTS

1American Psychiatric Association (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author

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Antisocial Personality Disorder

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As compared to NGRI patients without ASPD, we expected patients adjudicated NGRI and diagnosed with ASPD would score higher on:

- MMPI-2-RF underreporting Validity Scales (L-r, K-r), especially the scale designed to measure underreporting of psychopathy (K-r)

**Table 1.** MMPI-2-RF Content-Based Validity Scale Scores for Patients Adjudicated Incompetent to Stand Trial (N=196)

<table>
<thead>
<tr>
<th>Antisocial Personality Disorder</th>
<th>No (n=172)</th>
<th>Yes (n=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-r Infrequent Responses</td>
<td>75.60</td>
<td>28.03</td>
</tr>
<tr>
<td>Fp-r Infrequent Psychopathology Responses</td>
<td>71.57</td>
<td>25.59</td>
</tr>
<tr>
<td>Fs Infrequent Somatic Responses</td>
<td>66.88</td>
<td>24.09</td>
</tr>
<tr>
<td>FBS-r Symptom Validity</td>
<td>60.67</td>
<td>15.87</td>
</tr>
<tr>
<td>RBS Response Bias</td>
<td>67.36</td>
<td>21.99</td>
</tr>
<tr>
<td>L-r Uncommon Virtues</td>
<td>64.11</td>
<td>13.41</td>
</tr>
<tr>
<td>K-r Adjustment Validity</td>
<td>49.93</td>
<td>11.83</td>
</tr>
</tbody>
</table>

Note. *statistically significant t-test (two-tailed); p < .05. g = Hedge's g. All means as well as small (0.20)-[0.49], medium (0.50)-[0.79], and large ([0.80]+Hedges g values are bolded. MMPI-2-RF (Minnesota Multiphasic Personality Inventory-2 Redesigned Form).*

**Table 2.** MMPI-2-RF Content-Based Validity Scale Scores for Patients Adjudicated Not Guilty By Reason of Insanity (N=442)

<table>
<thead>
<tr>
<th>Antisocial Personality Disorder</th>
<th>No (n=382)</th>
<th>Yes (n=60)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-r Infrequent Responses</td>
<td>61.73</td>
<td>20.33</td>
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<tr>
<td>Fp-r Infrequent Psychopathology Responses</td>
<td>56.07</td>
<td>18.44</td>
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<tr>
<td>Fs Infrequent Somatic Responses</td>
<td>55.38</td>
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<tr>
<td>FBS-r Symptom Validity</td>
<td>53.87</td>
<td>11.61</td>
</tr>
<tr>
<td>RBS Response Bias</td>
<td>57.55</td>
<td>15.11</td>
</tr>
<tr>
<td>L-r Uncommon Virtues</td>
<td>61.06</td>
<td>13.43</td>
</tr>
<tr>
<td>K-r Adjustment Validity</td>
<td>54.18</td>
<td>10.93</td>
</tr>
</tbody>
</table>

Note. *statistically significant t-test (two-tailed); p < .05. g = Hedge's g. All means as well as small (0.20)-[0.49], medium (0.50)-[0.79], and large ([0.80]+Hedges g values are bolded. MMPI-2-RF (Minnesota Multiphasic Personality Inventory-2 Redesigned Form).*