Examination of a Combined Response Inconsistency (CRIN) Scale for the MMPI-2-RF: Basic Properties in Normative and Forensic Inpatient Samples

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Introduction

• The Minnesota Multiphasic Personality Inventory-2 Restructured Form (MMPI-2-RF) is a 338-item self-report personality and psychopathology inventory used commonly in forensic settings.

• Variable Response Inconsistency (VRIN-r) identifies random (i.e., variable) responding.

• True Response Inconsistency (TRIN-r) identifies fixed (i.e., acquiescent, counteracquiescent) responding.

• Combined Response Inconsistency (CRIN), originally developed for the Minnesota Multiphasic Personality Inventory-Adolescent Restructured Form (MMPI-A-RF) identifies mixed (i.e., partial random and fixed) responding.

• CRIN is calculated by summing VRIN-r, TRIN-r (True), and TRIN-r (False) raw points.

• Researchers have examined CRIN’s utility on the MMPI-A-RF1 but no previous studies have examined CRIN for use on the MMPI-2-RF.

Method

Current Study

• We examined CRIN’s basic properties in the MMPI-2-RF normative sample and a forensic inpatient sample.

Participants

MMPI-2-RF Normative Sample

• 2,276 participants were sampled to represent the US population.

Psychiatric Inpatient Sample

• Archival MMPI-2/MMPI-2-RF data were culled from a maximum security forensic inpatient setting.

• Of the 1,081 individuals retained in the final sample, demographic characteristics include 72.7% male; mean age = 39.9 years (SD = 11.2); approximately 55% Caucasian, 24% African-American, 17% Hispanic/Latino, 2% Asian American, and 2% from other ethnicities.

Procedure

MMPI-2-RF Normative Sample

• Of 2,276 participants, we retained 2,272 after excluding those with notable unscorable responding (CNS ≥ 18).

• We calculated CRIN and then converted CRIN’s raw points to Linear T Scores (Table 1).

Psychiatric Inpatient Sample

• Of 1,110 patients, we retained 1,081 after excluding those with notable unscorable responding (CNS ≥ 18).

• 84% of participants completed the 567-item MMPI-2. Data were rescored into MMPI-2-RF scores and CRIN raw and Linear T Scores were calculated.

Valid Scale Measures

• The MMPI-2-RF is a 338-item personality and psychopathology measure with 9 Validity Scales and 42 substantive scales.

• The current study utilizes two existing non-content-based Validity scales, VRIN-r and TRIN-r, as well as an experimental measure, CRIN.

Table 1: CRIN Raw-to-T Conversion

<table>
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<tr>
<th>Raw Score</th>
<th>T Score</th>
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<tbody>
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<tr>
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</tr>
</tbody>
</table>

Figure 1: VRIN-r, TRIN-r, & CRIN-r Elevation Overlap in the Forensic Inpatient Sample (n = 1,081)

No Elevation: VRIN-r ≥ 80T

1% n = 7

0% n = 0

5% n = 58

2% n = 24

3% n = 37

3% n = 28

CRIN ≥ 80T

80% n = 869

Total n = 1,081

Results

MMPI-2-RF Normative Sample

• As expected, few individuals exceeded 80T on VRIN-r (0.9%), TRIN-r (1.7%), or CRIN (0.8%).

• Given these rare rates of elevation, CRIN uniquely flagged only a very small number of protocols not already identified by VRIN-r and TRIN-r using 80T cut scores (0.2% of the total sample).

Psychiatric Inpatient Sample

• Elevations at 80T or above for VRIN-r (8%), TRIN-r (11%), and CRIN (14%) were more common in the forensic sample.

• 17% of protocols were flagged as non-content-based invalid based on VRIN-r or TRIN-r elevations.

• Of those, 65% were also flagged by CRIN.

• CRIN uniquely identified 28 (3% of total sample) invalid protocols not already identified by VRIN-r or TRIN-r at 80T (Fig. 1).

Implications

• CRIN exhibited a modest unique elevation pattern compared to VRIN-r and TRIN-r.

Limitations & Future Directions

• We had no data on the frequency of mixed responding.

• Future studies should utilize simulation designs.

References


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