Disclosure of Financial Interest

David Corey has received research funds from the MMPI publisher, the University of Minnesota Press.

As co-author of an interpretive report for using the MMPI-2-RF in assessments of police candidates, he will receive royalties.

Agenda

- Evidence-Based Uses of the MMPI-2-RF in Police Candidate Screening:
  - Protocol Validity
  - Implications of Clinically Significant Scores
  - Implications of Subclinical, Moderately Elevated Scores
  - Job-Relevant Correlates
  - Correlations with Other Self-Report Measures
  - Correlations with Post-Hire Outcomes
  - Item-Level Information
- Introduction to the MMPI-2-RF Police Candidate Interpretive Report (PCIR)
- Q & A
Evidence-Based MMPI-2-RF Interpretation:

Detrick, P., Ben-Porath, Y. S., & Sellbom, M. (under review). Associations between MMPI-2-RF (Restructured Form) and Inwald Personality Inventory (IPI) scale scores in a law enforcement pre-employment screening sample.


Protocol Validity

- **Content Non-Responsiveness** scales (CNS, VRIN-r, TRIN-r) and **Over-Reporting** scales (F-r, Fp-r, Fs, FBS-r, RBS)
  - Interpreted according to the cutoffs recommended in the MMPI-2-RF Manual for Administration, Scoring, and Interpretation (Ben-Porath & Tellegen, 2008/2011)

- **Under-Reporting** scales (L-r, K-r)
  - Interpreted using adjusted cutoffs
Under-Reporting

- Police candidates having higher mean scores and variance on under-reporting scales, and lower mean scores and variance on substantive scales, due to:
  - Pre-selection factors (e.g., stable work history, civil service exams, background investigations, pre-offer testing) leading to a comparatively well-adjusted sample
  - Secondary gains perceived to be associated with a positive presentation
Under-Reporting

- Pre-selection and motivational factors result in three rival hypotheses to explain a candidate's elevated under-reporting scores:
  - The candidate is well-adjusted and endowed with positive virtues and presents these qualities accurately
  - The candidate is well-adjusted and endowed with positive virtues but exaggerates or otherwise distorts these qualities
  - The candidate presents but does not actually possess these qualities

Interpreting the Under-Reporting Scales

Some under-reporting is expected:
- Absence of under-reporting is uncommon and a possible red flag
  L-r=37: 4.0% (of CG members claim no uncommon virtues)
  K-r < 31: < 0.1%
  K-r=35-38: < 1%
  K-r=42-45: < 4%

Interpreting the Under-Reporting Scales

In preemployment police and public safety assessments:
- Excessive under-reporting makes it impossible to rely on test data to rule out risk factors

Challenge: How much under-reporting is too much?
Interpreting the Under-Reporting Scales

Impact of under-reporting is asymmetrical:
• Non-elevated substantive scale scores cannot be interpreted as indicating the absence of problems assessed by those scales.
• Elevated substantive scales can be interpreted, but may underestimate problems.

In standard interpretive guidelines, possible under-reporting is indicated by:
  \[ L-r \geq 65T \]
  \[ K-r \geq 60T \]

Standard guidelines written broadly; intended to apply first and foremost in clinical settings.
Interpreting the Under-Reporting Scales

In Police Officer Candidate Comparison Group:

- L-r ≥ 65T (32.7%)
- K-r ≥ 60T (67.3%)

- High L-r scores reflect combination of traditional moralistic background (more likely in police candidates than the general population) and under-reporting
- High K-r scores reflect combination of good psychological adjustment (result of pre-evaluation selection process) and under-reporting

Interpreting the Under-Reporting Scales

L-r Uncommon Virtues

- 81T: 10.1% of CG members score at this level or higher
- 86T: 5.8%
- 91T: 2.6%
- 95T: 1.1%
- 100T: 0.1%
- 105T: no CG members score at this level

K-r Adjustment Validity

- 69T: 37.9% of CG members score at this level or higher
- 72T: 17.6%

Interpreting the Under-Reporting Scales

Detrick and Chibnall (2014)

Regression analyses indicate that:

- Higher L-r scores associated primarily with:
  - Lower Externalizing scale scores (BXD, RC4, RC9, DISC-r)
  - Lower RC3 scale scores
- Higher K-r scores associated primarily with:
  - Lower Internalizing scale scores (IED, RC2, RC7)
  - Lower RC3 and RC9 scores
Using Under-Reporting Scales As Indicators of Deception

- Not supported by the literature
- High scores on L-r and K-r justify heightened scrutiny concerning the possibility of intentional deception
- Conclusions about candidate deceptiveness require corroboration from collateral data

Implications of Clinically Elevated Scores for Police Candidates

Clinically Significant Scores

- Interpretation relies on standard cutoffs (> 65T) and standard inferences
- Correlates and inferences of clinically significant scores may have particular implications for public safety functions
Using the Police Officer Candidate Comparison Group to Inform Interpretation of Moderate-High Score Elevations

Comparison Group

- Facilitates interpretation of elevated under-reporting scores that should not be interpreted at standard cutoffs
- Facilitates interpretation of even moderately elevated scores (< 65T) that should be interpreted vis-à-vis their implications for a peace officer
- Facilitates interpretation of clinically elevated substantive scale scores (> 65T) by comparison to referent group base rates
Expanded Police Officer Candidate Comparison Group

<table>
<thead>
<tr>
<th>North American Region</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
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<tr>
<td>Pacific</td>
<td>136</td>
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<td>West</td>
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<tr>
<td>Midwest</td>
<td>131</td>
<td>131</td>
</tr>
<tr>
<td>South</td>
<td>224</td>
<td>224</td>
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<tr>
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<tr>
<td>Total</td>
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</table>

Police Candidate CG vs. Law Enforcement Candidate CG

<table>
<thead>
<tr>
<th>MMPI-2-RF Validity Scales</th>
<th>Police Candidate CG (n = 2074)</th>
<th>Law Enforcement Candidate CG (n = 674)</th>
</tr>
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<tbody>
<tr>
<td>F</td>
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<td>FBS</td>
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<td>RBS</td>
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<td>K</td>
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</table>
**MMPI-2-RF: Police and Law Enforcement Webinar Handout 2014**

**Police Candidate CG vs. Law Enforcement Candidate CG**

**MMPI-2-RF Higher-Order (H-O) and Restructured Clinical (RC) Scales**

- **Police Candidate CG (n = 2074)**
  - Mean - Police Candidate CG: 36, 44, 46, 40, 42, 41, 44, 45, 47, 38, 44, 43
  - Standard Dev - Police Candidate CG: 66
- **Law Enforcement Candidate CG (n = 674)**
  - Mean - Law Enforcement Candidate CG: 36, 44, 46, 40, 42, 41, 44, 45, 46, 38, 44, 43
  - Standard Dev - Law Enforcement Candidate CG: 78

**MMPI-2-RF Somatic/Cognitive and Internalizing Scales**

- **Police Candidate CG (n = 2074)**
  - Mean - Police Candidate CG: 42, 46, 44, 46, 43, 46, 42, 43, 41, 41, 45, 41, 44, 45
  - Standard Dev - Police Candidate CG: 67
- **Law Enforcement Candidate CG (n = 674)**
  - Mean - Law Enforcement Candidate CG: 43, 47, 44, 45, 43, 45, 42, 43, 41, 42, 45, 41, 44, 44
  - Standard Dev - Law Enforcement Candidate CG: 75

**MMPI-2-RF Externalizing, Interpersonal, and Interest Scales**

- **Police Candidate CG (n = 2074)**
  - Mean - Police Candidate CG: 48, 45, 42, 44, 43, 46, 46, 41, 46, 42, 56
  - Standard Dev - Police Candidate CG: 96
- **Law Enforcement Candidate CG (n = 674)**
  - Mean - Law Enforcement Candidate CG: 49, 45, 42, 44, 43, 46, 46, 42, 45, 41, 57
  - Standard Dev - Law Enforcement Candidate CG: 96
Moderate (Subclinical) Elevations

- Scores in this range reflect a comparatively high level of the construct assessed by each scale
- Generally, 5% or less of comparison group members scores within this range or higher (low cutoff at least 2 SD’s above the comparison group mean)
- Further scrutiny is recommended (based on interview, other test data, background, other collateral sources) when cutoff is met

Recommended Ranges for Moderate Elevations

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<tr>
<th>Scale</th>
<th>Lower Range</th>
<th>Upper Range</th>
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<tr>
<td>MSF</td>
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</table>

**Interpreted only at ≥ 65T**
Recommended Ranges for Moderate Elevations

<table>
<thead>
<tr>
<th>JCP **</th>
<th>SUB 55-61</th>
<th>AGG 56-61</th>
<th>ACT **</th>
<th>FML 58-63</th>
<th>IPP 56-62 34</th>
<th>SAV 59</th>
<th>SHY 57</th>
<th>DSF **</th>
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<tbody>
<tr>
<td><strong>Interpreted only at ≥ 65T</strong></td>
<td>AGGR-r **</td>
<td>PSYC-r 59-63</td>
<td>DISC-r ##</td>
<td>NEGE-r 56-62</td>
<td>INTR-r **</td>
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<tr>
<td># #Interpreted at 63T if RC4 ≥ 57T, otherwise only at ≥ 65T</td>
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</table>

Identifying Job-Relevant Correlates

- Derived from Empirical, Peer-Reviewed Studies
  - Findings with adequate effect sizes
  - Findings that generalize across samples
  - Findings related to behaviors that are relevant to, and consequential for, police officer functions (e.g., linked to the California POST psychological screening dimensions)
  - cf. Brown v. Sandy City Appeal Board (Utah Court of Appeals, 2014)
Police Candidate Interpretive Report (PCIR)

PCIR Features

• Standard MMPI-2-RF profile with expanded Police Officer Candidate comparison group
• Total transparency
  • All interpreted scores are explicitly identified
  • The source(s) for every interpretive statement are annotated
• Intended to provide users with economic efficiency
• Provides comparison group base rates for interpreted scores
• Organizes behavioral correlates under 10 job-relevant (California POST) dimensions

PCIR Features

• Focuses on identifying problems; it does not convey potential strengths
• User’s Guide for the Police Candidate Interpretive Report provides:
  • Complete description of the structure and rationale for the report
  • Comprehensive list of references
  • Summaries of the key empirical studies underlying the report
  • Detailed instructions for producing reports via Q-Local and Q-global
PCIR Features

- Includes guidance for interpreting deviant under-reporting scale scores
  - Lists items with potentially verifiable historical content to facilitate scrutiny
- Includes item-level information, incorporating comparison group base rates:
  - Unscorable Responses (CNS)
  - Critical Responses
  - User-Designated Item-Level Information
  - Critical Follow-Up Items

PCIR Features

- Follows a structure similar to the outline of this webinar:
  - Synopsis
  - Protocol Validity
  - Clinical Findings
    - Diagnostic Considerations
    - Comparison Group Findings
  - Job-Relevant Correlates
  - Item-Level Information
  - Endnotes and References

PCIR Intended to Support Strategy for Integrating MMPI-2-RF PCIR Findings With Other Assessment Data

Spilberg & Corey (2014)

1. Identify all job-relevant risk-related findings from:
   - Written Testing
   - Personal History/Background/Treatment Records
   - Clinical Interview
2. Eliminate those that are outweighed by divergent data with sufficient reliability and validity
3. Disqualify if surviving risks are of sufficient relevance and magnitude to conclude that the candidate is unable to safely and effectively perform the duties of the position
Questions?