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[2]
- Pierson et al. (2011) did not find evidence that individuals with ASPD were more likely to malinger than others[3]

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.[4]

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 psychopathology (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 psychopathology (K-r)

METHOD

- **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).[5]
- **Measure.** As part of forensic or clinical evaluations at the hospital, patients in both groups completed the MMPI-2 or MMPI-2-RF[5]. When necessary, MMPI-2 items were rescored into MMPI-2-RF scales.[6]
- **Procedure.** Uncontaminated diagnoses from the date of testing to 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.

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

		Antisocial Personality Disorder					
		No (*n* = 172)		Yes (*n* = 24)			
		M	*SD*	*M*	*SD*	*t*	*g*
F-r	**Infrequent Responses**	**75.60**	28.03	**101.83**	26.36	4.33*	**0.94**
Fp-r	**Infrequent Psychopathology Responses**	**71.57**	25.59	**93.54**	26.64	3.92*	**0.85**
Fs	**Infrequent Somatic Responses**	**66.88**	24.09	**80.96**	23.29	2.69*	0.58
FBS-r	**Symptom Validity**	**60.67**	15.87	**70.79**	13.58	2.98*	0.65
RBS	**Response Bias**	**67.36**	21.99	**87.33**	24.69	4.11*	**0.89**
L-r	**Uncommon Virtues**	**64.11**	13.41	**56.83**	12.06	-2.52*	-0.55
K-r	**Adjustment Validity**	**49.93**	11.83	**40.54**	12.01	-3.64*	-0.79

Note. *statistically significant *t*-test (two-tailed); $p < .05$. *g* = Hedges' *g*. All means as well as small (|0.20|-|0.49|), medium (|0.50|-|.79|), and large (|0.80+|) Hedges' *g* values are **bolded**. MMPI-2-RF (Minnesota Multiphasic Personality Inventory-2-Restructured Form).

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

		Antisocial Personality Disorder					
		No (*n* = 382)		Yes (*n* = 60)			
		M	*SD*	*M*	*SD*	*t*	*g*
F-r	**Infrequent Responses**	**61.73**	20.33	**64.33**	22.21	.91	0.13
Fp-r	**Infrequent Psychopathology Responses**	**58.07**	18.44	**60.38**	20.71	.89	0.12
Fs	**Infrequent Somatic Responses**	**55.38**	15.02	**56.88**	14.39	.72	0.10
FBS-r	**Symptom Validity**	**53.87**	11.61	**53.42**	11.29	-.28	-0.04
RBS	**Response Bias**	**57.55**	15.11	**57.73**	14.78	.09	0.01
L-r	**Uncommon Virtues**	**61.06**	13.43	**59.85**	14.32	-.65	-0.09
K-r	**Adjustment Validity**	**54.18**	10.93	**51.55**	12.02	-1.71	-0.24

Note. *statistically significant *t*-test (two-tailed); $p < .05$. *g* = Hedges' *g*. All means as well as small (|0.20|-|0.49|), medium (|0.50|-|.79|), and large (|0.80+|) Hedges' *g* values are **bolded**. MMPI-2-RF (Minnesota Multiphasic Personality Inventory-2-Restructured Form).

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[2].

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