

10-2018

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Recommended Citation

Gutierrez, Rosemary; Peck, Kylin; Burchett, Danielle; and Glassmire, David M., "Evaluating MMPI-2-RF Infrequent Somatic Responses (Fs) Item Endorsement Rates Across Ethnic, Gender, and Age Groups with a Forensic Inpatient Sample" (2018). *Psychology Faculty Publications and Presentations*. 10.
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Evaluating MMPI-2-RF Infrequent Somatic Responses (Fs) Item Endorsement Rates Across Ethnic, Gender, and Age Groups with a Forensic Inpatient Sample

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Introduction

- The Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF) contains nine Validity Scales to detect invalid responding
- Often used in clinical and forensic evaluations

Infrequent Somatic Responses (Fs) Validity Scale
(rarely endorsed somatic complaints)

MMPI-2-RF

- Created using the rare symptoms approach,¹ the 16-item Fs scale is composed of somatic symptom items endorsed by < 25% of general medical & chronic pain patients²

Aims & Hypotheses

- Individuals living with severe mental illnesses such as schizophrenia or bipolar disorder are at elevated risk for genuine medical symptoms such as type 2 diabetes mellitus, asthma, and chronic obstructive pulmonary disease^{3,4}
- We sought to examine whether endorsement rates for Fs items are similarly rare in a forensic inpatient sample, where individuals live with severe psychiatric conditions such as schizophrenia or bipolar disorder
- We hypothesized all Fs items would be rarely endorsed (< 25%), but would be most frequently endorsed by older patients given their elevated risk of medical problems⁵

Method

Participants

- 437 forensic inpatients adjudicated not guilty by reason of insanity who completed the MMPI-2-RF as part of clinical or forensic evaluations

Procedure

- We excluded non-content-invalid protocols and examined Fs item endorsement rates for the overall sample as well as gender, age, and ethnicity subsamples

Table 1. Fs Item Endorsement Rates

Item	Total Sample N = 437	Ethnicity			Gender		Age		
		African American n = 73	Caucasian n = 240	Hispanic n = 63	Men n = 344	Women n = 93	Young n = 151	Middle n = 193	Older n = 93
15	5.5	4.1	4.2	12.7	6.1	3.2	7.3	4.7	4.3
33	5.5	4.1	7.1	1.6	4.7	8.6	3.3	7.3	5.4
43	3.2	2.7	3.8	3.2	3.2	3.2	4.0	3.1	2.2
122	15.1	17.8	12.9	14.3	14.5	17.2	15.2	13.0	19.4
133	4.3	4.1	3.8	6.3	3.5	7.5	6.0	2.6	5.4
137	9.4	9.6	9.6	11.1	9.6	8.6	7.9	8.3	14.0
159	16.0	15.1	17.9	9.5	14.8	20.4	15.9	15.5	17.2
170	5.0	8.2	3.3	4.8	4.9	5.4	5.3	4.1	6.5
199	20.6	16.4	21.7	20.6	19.2	25.8	21.9	21.8	16.1
216	16.9	16.4	19.6	15.9	14.8	24.7	17.2	15.5	19.4
225	8.0	9.6	8.3	4.8	7.6	9.7	6.6	10.9	4.3
308	3.4	0.0	5.0	3.2	3.2	4.3	1.3	4.1	5.4
2(R)	3.7	2.7	3.3	4.8	3.2	5.4	6.0	1.6	4.3
78(R)	13.0	9.6	15.0	11.1	13.7	10.8	7.9	13.0	21.5
186(R)	29.7	26.0	28.3	28.6	30.5	26.9	29.1	31.6	26.9
272(R)	8.0	5.5	8.8	12.7	9.0	4.3	7.9	7.8	8.6

Note. Endorsement rates $\geq 25\%$ are bolded. (R) denotes items that have been reverse-coded. Age groups are defined as younger (18-34), middle (35-49), and older (50+) adults.

Results

- Nearly every item exhibited overall and subgroup endorsement rates below 25%
- Women had a 25.8% endorsement rate on Item 199, related to smelling strange odors
- Few items had age-related endorsement patterns, except Item 78, about hearing loss
- Over 25% of every subgroup endorsed item 186, about convulsion history

Discussion

- Fs was designed to be comprised of somatic items rarely endorsed by individuals experiencing genuine medical symptoms, such that endorsement of several items suggests somatic overreporting
- This study demonstrates that, in a forensic setting, self-reported convulsion history may be relatively common and not necessarily a sign of overreporting**
- This may be due the elevated risk of seizures associated with antipsychotic and antidepressant medication⁶
- Future research should examine Fs endorsement rates in psychiatric inpatients with confirmed medical diagnoses
- Clinicians should consider documented medical history and item-level endorsements when interpreting modest Fs elevations**

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Acknowledgements

This research was made possible by support from a grant from the University of Minnesota Press, Test Division in supporting data collection, and California State University, Monterey Bay Undergraduate Research Opportunity Center (UROC) for additional financial, logistical, and mentorship support. This research was approved by the CA Committee for the Protection of Human Subjects. The statements and opinions expressed are those of the authors and do not constitute the official views or the official policy of DSH-Patton, The California Department of State Hospitals, or the State of California.