

COMPARATIVE ANALYSIS OF THE PSY-5 AND MCMI-III IN ASSESSING PERSONALITY DISORDERS



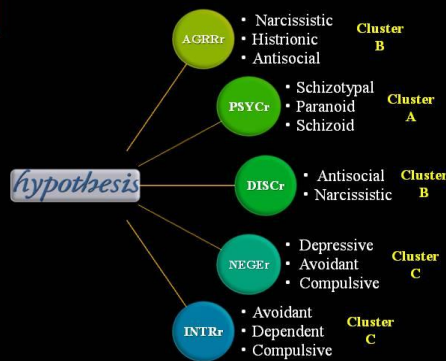
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INTRODUCTION AND PURPOSE

According to Harkness and McNulty (1994) the Personality Psychopathology-Five (PSY-5) including in the MMPI-2-RF is a dimensional model developed to conceptualize the traits underlying personality psychopathology. Personality disorder-related diagnostic considerations listed by Ben-Porath & Tellegen (2008) are, for the most part, inferential. Research with the PSY-5 scales has mainly focused on correlational data and comparisons between the scales and other self-report instruments such as the NEO-PI-R, MPQ and SCL-90-R (Wygant, Sellbom, Graham and Schenk, 2006). However, we found no studies that have examined the relationship between PSY-5 scales and MCMI-III personality disorders scales. The present study examines the correspondence between PSY-5 scales and personality disorders based on the DSM-IV-TR criteria and measured with MCMI-III Personality Disorder (PD) scales.

According to Ben-Porath & Tellegen (2008), we hypothesized that the PSY-5 scales will be associated with the following MCMI-III PD scales.



PARTICIPANTS

The initial sample consisted of 407 outpatients (183 men and 224 women, age 18-73 years) who were attending various psychiatry and psychology centers in Barcelona (Spain). After exclusion criteria had been applied the final sample comprised 377 outpatients, 167 men (44.3%) and 210 women (55.7%) aged between 18 and 73 (mean 37.8, SD=11.48). Several participants had multiple diagnoses. All diagnoses were determined by psychiatrists in accordance with DSM-IV-TR criteria (APA, 2000).



PROCEDURE

The MCMI-III and MMPI-2-RF were administered to the clinical sample of 377 outpatients as part of their psychological assessment process.

Reliability estimates (Cronbach's alpha) in the present study ranged from 0.88 for CC to 0.65 for scale 7 for the MCMI-III and from 0.92 for RCd to 0.68 (AGGR and INTR scales) for the MMPI-2-RF.

The MMPI-2-RF scales used in this study were the five PSY-5 scales and personality disorders scales from MCMI-III.



RESULTS

Correlational analyses

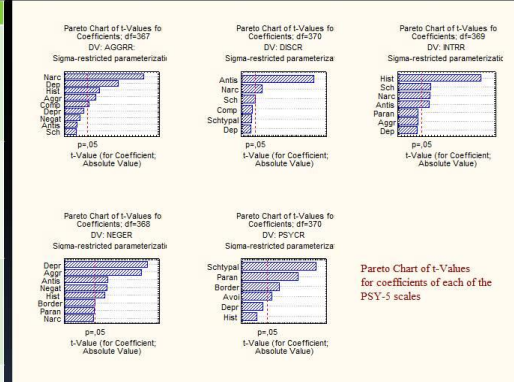
We performed a zero-order correlations between PSY-5 scales and MCMI-III Personality Disorder scales. Given that the significance of product moment correlations is an effect size measure (Meyer et al., 2008), the interpretation of relationships was made not only on the basis of statistical significance but also in terms of their magnitude. We therefore chose to emphasize only those correlations that reached or exceeded a large effect size ($r > 0.50$; Cohen, 1988).

Correlations between PSY-5 and MCMI-III Personality Disorder scales

	AGGR-r	PSYC-r	DISC-r	NEGE-r	INTR-r
Schizoid	-0.11	0.43	0.04	0.39	0.47
Avoidant	-0.23	0.44	0.04	0.47	0.41
Depressive	-0.07	0.52	0.09	0.63	0.27
Dependent	-0.20	0.45	0.07	0.51	0.15
Histronic	0.37	-0.18	0.13	-0.21	-0.64
Narcissistic	0.61	0.03	0.35	-0.12	-0.48
Antisocial	0.29	0.37	0.60	0.35	-0.12
Aggressive	0.36	0.48	0.44	0.56	-0.04
Compulsive	-0.02	-0.17	-0.29	-0.20	0.05
Negativistic	0.15	0.57	0.28	0.64	0.11
Self-Defeating	-0.07	0.58	0.15	0.56	0.23
Schizotypal	-0.00	0.65	0.20	0.53	0.24
Borderline	0.05	0.58	0.27	0.61	0.16
Paranoid	0.18	0.61	0.23	0.44	0.07

Regression analyses We performed several multiple regression analyses to determine which MCMI-III Pd scales contribute to explain the variance of each PSY-5 scales. To find the best regression model, we calculated all-possible-subset regression in conjunction with stepwise methods and we selected the Adjusted R squared value as criterion to choosing the best subset of predictor effects. The percentage of variance of each of PSY-5 scales explained by MCMI-III PD scales ranged between 40% and 50.8%. In general, results did not supported proposed hypothesis. For example, the MCMI-III Antisocial Pd scale did not contribute in the prediction of PSY-5 AGGR scale. However, this one is more related to interpersonal characteristics, and it may not be directly related to antisocial personality, which is a more behavioral symptom constellation. (Wygant et al. 2006; Harkness et al., 2011). Also, the results confirm NEGER as a general marker of psychopathology encompassing traits such as reactive aggression, worry proneness, mood shifts, etc. Therefore, this scale is associated with several personality disorders but not from cluster C.

D.V.	I.D.	β	F	p	Adjusted R ²
A	Narcissistic	0.39	44.76	0.0000	0.445 $p = 0.000$
G	Dependent	-0.26	20.71	0.0000	
G	Histronic	0.20	8.74	0.0033	
G	Aggressive	0.20	6.92	0.0089	
R	Compulsive	0.10	4.36	0.0375	
P	Schizotypal	0.43	31.99	0.0000	0.489 $p = 0.000$
S	Paranoid	0.25	18.57	0.0000	
Y	Avoidant	-0.18	5.24	0.0226	
C	Borderline	0.18	8.27	0.0043	
D	Antisocial	0.63	103.46	0.0000	0.400 $p = 0.000$
I	Narcissistic	0.15	8.41	0.0040	
S	Schizoid	-0.11	3.90	0.0490	
N	Aggressive	0.35	23.92	0.0000	0.508 $p = 0.000$
E	Depressive	0.34	27.64	0.0000	
G	Negativistic	0.22	7.27	0.0073	
G	Antisocial	-0.16	7.45	0.0066	
E	Histronic	0.13	6.53	0.0110	
I	Histronic	-0.47	46.45	0.0000	0.444 $p = 0.000$
N	Schizoid	0.18	7.25	0.0074	
T	Narcissistic	-0.16	6.93	0.0088	
R	Antisocial	-0.15	6.42	0.0117	



These Pareto charts shows the parameter estimates and t-values associated sorted by their absolute size. A vertical line will also be shown to indicate the minimum magnitude of statistically significant parameter estimates, given the current criterion of statistical significance ($\alpha = 0.05$).

CONCLUSIONS

All PSY-5 scales are predicted by several MCMI-III PD scales with a moderate percentage of variance and its association are in line of results obtained by different authors (Wygant et al., 2006; Arnau et al., 2005; Harkness et al., 2011). This variability of personality disorders scales associated with PSY-5, make them less effective to identify a single disorder but guide toward a group of disorders.

All PSY-5 scales combine various personality disorders belonging to different clusters. It is necessary more research to examine PSY-5 scales in relation to abnormal personality using approaches other than objective self-report.

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