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Article *in* Psychological Assessment · March 2023

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Psychological Assessment

ISSN: 1040-3590

2023, Vol. 35, No. 5, e22–e30
https://doi.org/10.1037/pas0001223

RESEARCH ON TRANSLATIONS OF TESTS

Evaluation of a 36-Item Measure of *ICD-11* and *DSM-5* Personality Disorder Trait Domains and Facets in Russian Inpatients

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The *Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5)* and *International Classification of Diseases 11th revision (ICD-11)* have introduced a new dimensional approach to personality disorder (PD) classification that relies on the global level of PD severity and individual expressions of personality dysfunction in terms of specified trait domains (i.e., negative affectivity, detachment, antagonism, disinhibition, anankastia, and psychoticism). This study sought to evaluate the psychometric qualities of the *DSM-5* and *ICD-11* trait domains and facets in 570 Russian psychiatric inpatients using the Modified 36-Item Personality Inventory for *DSM-5* and ICD-11 Brief Form Plus–Modified (PID5BF+M). The expected six-factor structure of the *DSM-5* and *ICD-11* trait domains was replicated using exploratory factor analysis. The six domain scores showed expected convergence with normal five-factor model scores, and the 18 subfacets showed acceptable scale reliability. Our findings overall support the psychometric properties of the six PID5BF+M domain scores and 18 subfacet scores covering both the *ICD-11* and the *DSM-5* trait models. Consequently, clinicians and researchers in Russian-speaking mental health services are now able to perform a combined and facet-level assessment of the *DSM-5* and *ICD-11* trait models in a feasible and psychometrically sound manner.

Public Significance Statement
This study shows that the combined six domains and 18 primary subfacets of the *DSM-5* and *International Classification of Diseases 11th revision* trait models can be measured in Russian mental health care in a psychometrically sound manner using a 36-item patient-reported instrument: Personality Inventory for *DSM-5* and *ICD-11* Brief Form Plus–Modified (PID5BF+M).

Keywords: PID5BF+M, personality trait, psychometric, alternative model of personality disorders, dimensional model

Supplemental materials: https://doi.org/10.1037/pas0001223.supp

This article was published Online First March 16, 2023.

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The authors are grateful to Raguzin Anton and Svyatskaya Ekaterina for technical assistance in the preparation of the article. The authors have no known conflict of interest to disclose.

This study was performed as a part of the research program of the Moscow Research and Clinical Center for Neuropsychiatry. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

This study was not preregistered. Study materials are not available due to the legal restrictions.

Mikhail Zinchuk played lead role in conceptualization, project administration, resources and supervision, and equal role in methodology and writing of original draft. Georgii Kustov played lead role in data curation and software, supporting role in formal analysis and methodology, and equal role in writing of original draft. Bo Bach played lead role in conceptualization and formal analysis and equal role in methodology, software, validation, writing of original draft, and writing of review and editing. Evgenii Pashnin played equal role in visualization, writing of original draft, and writing of review and editing. Anna Gersamija played supporting role in conceptualization, methodology and writing of original draft and equal role in data curation, formal analysis, and validation. Alexander Yakovlev played supporting role in methodology and writing of original draft and equal role in data curation, formal analysis, and software. Nadezhda Voinova played supporting role in writing of original draft and equal role in data curation, investigation, and resources. Sofya Popova played supporting role in supervision and equal role in data curation, investigation, project administration, resources, and visualization. Alla Guekht played lead role in project administration and resources, supporting role in writing of review and editing and equal role in conceptualization, methodology, supervision, and writing of original draft.

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Personality disorder (PD) is associated with a high economic burden, severe impairment in quality of life, and a number of negative health and well-being outcomes (Soeteman et al., 2008; Tyrer et al., 2015). According to meta-analytic evidence, the worldwide prevalence of any PD is 7.8% (Winsper et al., 2020) and 12.2% in Western societies (Volkert et al., 2018). The prevalence of PD in psychiatric outpatients ranges from 40% to 92% (Beckwith et al., 2014), which makes it a high volume and high cost problem. Nevertheless, in many countries, PD is rarely or never diagnosed possibly because clinicians find the assessment of established *DSM-IV/5* and ICD-10 PD diagnoses cumbersome and difficult to operationalize (Gawda, 2018; Loranger et al., 1997; Ryder et al., 2014). Moreover, a number of limitations of the categorical PD diagnoses have been highlighted such as questionable construct validity and excessive overlap among PD categories (Johansen et al., 2004; Oldham et al., 1992; Zimmerman et al., 2005).

The *Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5)* has taken the first step toward revising how PD is diagnosed by including the alternative model of personality disorders (AMPD) in Section III as an alternative to the established categorical PD model in Section II (American Psychiatric Association [APA], 2013). According to the AMPD approach, the diagnosis of PD requires a dimensional assessment of overall personality functioning (Criterion A) and individual maladaptive personality traits (Criterion B). The trait criterion, which is the focus of the present study, comprises 25 trait facets, which are empirically organized within five trait domains (i.e., negative affectivity, detachment, antagonism, disinhibition, and psychoticism). Thus, the stylistic features of the familiar PD categories may be portrayed using specified configurations of these traits (Watters et al., 2019).

Likewise, the World Health Organization's (WHO) *International Classification of Diseases 11th revision (ICD-11)* classification of PD is based on global severity of personality dysfunction, which may be further characterized by five stylistic trait domain specifiers (i.e., negative affectivity, detachment, dissociality, disinhibition, and anankastia) along with an optional "borderline pattern specifier" (World Health Organization [WHO], 2022). A large body of research on the AMPD and the *ICD-11* trait models have already yielded an emerging foundation for informing clinical assessment and treatment planning (Bach & Mulder, 2022a, 2022b; Bach & Tracy, 2022; Tracy et al., 2021; Zimmermann et al., 2019).

Measuring the AMPD and ICD-11 Trait Models

Although the AMPD and *ICD-11* trait models are quite comparable, there are certain differences that must be highlighted. In contrast to the AMPD, the *ICD-11* does not include a trait domain of psychoticism because WHO categorize such features with schizophrenia spectrum disorders (including Schizotypal disorder). Moreover, unlike the AMPD framework, the *ICD-11* includes a separate trait domain of anankastia, which in the AMPD is supposed to be captured by reversed disinhibition (i.e., facet of rigid perfectionism). Finally, the AMPD and *ICD-11* trait models use different but somewhat synonymous terminology for antagonism and dissociality, which virtually cover the same features.

The AMPD trait domains have originally been operationalized using the Personality Inventory for *DSM-5* (PID-5), which is a 220-item self-report instrument assessing 25 trait facets and five higher order domains (Krueger et al., 2012). Extensive research has supported its psychometric properties (Al-Dajani et al., 2016; Barchi-Ferreira Bel & Osório, 2020). Unlike the AMPD approach, there is no sanctioned measure for the *ICD-11* trait model. However, a number of methods for its measurement have been developed. Bach et al. (2017) created and investigated an algorithm for the PID-5, which allowed the user to compute a separate *ICD-11* trait domain of anankastia by averaging the facet scores for "rigid perfectionism" and "perseveration." This operationalization has been empirically supported and further refined in later studies (Bach et al., 2018; Fang et al., 2021; Hemmati et al., 2021; Lotfi et al., 2018; Lugo et al., 2019; Sellbom et al., 2020). Additionally, other well-established instruments such as Minnesota Multiphasic Personality Inventory and computerized adaptive test of personality disorders may also be used to delineate aspects of *ICD-11* trait domains (Anderson & Sellbom, 2021; Tarescavage & Menton, 2020). As the first official measure of *ICD-11* trait domains, Oltmanns and Widiger (2018) developed the 60-item Personality Inventory for *ICD-11* (PiCD) capturing the five trait domains and the 121-item Five-Factor Personality Inventory for *ICD-11* (FFiCD), which also captures 20 facets and 47 nuances (Oltmanns & Widiger, 2018, 2020). Moreover, Kim et al. (2021) have developed the 17-item Personality Assessment Questionnaire for *ICD-11* (PAQ-11) personality trait domains, which captures the five trait domains. Most recently, Clark et al. (2021) developed a preliminary set of scales for the *ICD-11* PD model, which includes 181 items specifically covering the five trait domains and 11 underlying components.

A Feasible 36-Item Instrument for DSM-5 and ICD-11 Traits

The considerable time required to complete the 220-item PID-5 instrument limits its use in routine clinical practice, and the 25-item brief version (APA, 2013) does not fully capture the *ICD-11* trait domain specifiers due to the lack of content related to anankastia. Likewise, the PiCD, PAQ-11, FFiCD, and Clark et al.'s (2021) scales do not fully capture the *DSM-5* trait model due to the absence of items covering psychoticism. Thus, in order to capture both *DSM-5* and *ICD-11* trait domains, Kerber et al. (Kerber et al., 2022) used an ant colony optimization (ACO) method[1] to develop a 34-item instrument, referred to as the Personality Inventory for *DSM-5* and *ICD-11* Brief Form Plus (PID5BF+), which covers all six trait domains (i.e., negative affect, detachment, antagonism/dissociality, disinhibition, anankastia, and psychoticism) including 17 subfacets. Subsequently, Bach et al. (2020) improved the PID5BF+ by modifying the facet structure of the anankastia domain, which now included subfacets of orderliness, perfectionism, and rigidity. This modified version of the instrument (PID5BF+M) comprises 36 items and 18 subfacets. Initially, the six-factor model was tested on 2,460 clinical and community participants from Denmark, Germany, and the United States, and subsequently replicated in samples from Italy, France, Switzerland, Belgium, Norway, Portugal, Spain,

[1] ACO is a novel approach to item selection based on the food foraging behavior of ants and the use of virtual "pheromones" to increase the attractiveness of item choices that yield good psychometric properties (Leite et al., 2008). Studies suggest that ACO performs better than traditional strategies (Schroeders et al., 2016) and metaheuristic strategies (Olaru et al., 2015) for item selection in personality research. For a more detailed description of how this method was used to develop the PID5BF+ we refer to Kerber et al. (Kerber et al., 2022).

Poland, Czech Republic, and Brazil. A subsequent Czech evaluation of the independent PID5BF+M generally supported the six-factor structure except for the disinhibition domain, which was only partially supported (Riegel et al., 2021). Moreover, a Portuguese study supported the differential construct validity of the PID5BF+M (Pires et al., 2021), and a Dutch evaluation supported its potential utility in clinical practice (Bastiaens et al., 2021).

Goal of the Present Study

The present study sought to investigate the psychometric properties of the Russian translation of the PID5BF+M instrument. To date, no studies have investigated the *DSM-5* and *ICD-11* trait domains in a Russian context.

Materials and Method

Participants and Procedure

The study was conducted in Moscow Research and Clinical Centre for Neuropsychiatry from June to November 2020. Adult psychiatric inpatients with no present psychotic symptomatology were consecutively recruited from a hospital unit specialized in the treatment of patients with uni- and bipolar depressive disorders, anxiety disorders, dissociative disorders, somatoform disorders, eating disorders, and personality disorders (see Table 1). Thus, the study did not include patients with present psychotic conditions as seen in patients with delirium, schizophrenia, delusional disorders, organic hallucinations, catatonia, and severe uni- and bipolar depressive disorders with psychotic symptoms. Moreover, patients with neurological diseases or severe somatic conditions, substance use disorders, and cognitive deficits were excluded from the study. Written informed consent was obtained by all participants. The study was approved by the Local Research Ethics Committee of the Moscow Research and Clinical Centre for Neuropsychiatry. This study adhered to the tenets of the Declaration of Helsinki. The study was not preregistered.

Of all 605 recruited patients, 570 provided complete data. At total of 10 participants did not initiate the self-report procedure. Responses from 25 participants were deemed ineligible due to the incompleteness, substantial errors, or using more than the 2 hr allotted for the study.

Mean age of the participants was 29.38 (SD = 12.14; range 18–77) with the majority of patients being female (84.7%).

The most common diagnoses were single/recurrent depressive episode (31.4%) and PD (26.7%) as shown in Table 1. Approximately 10% of patients were assigned two or more psychiatric diagnoses, mainly due to co-occurrence of personality, affective, and eating disorders. For sociodemographic and clinical characteristics, see Table 1.

The diagnosis of mental disorders was established by a psychiatrist after routine clinical evaluation based on the ICD-10 criteria (WHO, 1994). All participants were administered approved Russian versions of the PID5BF+M and NEO-Five Factor Inventory (NEO-FFI).

Instruments

The Modified Personality Inventory for *DSM-5* and *ICD-11* Brief Form Plus–Modified (PID5BF+M) consists of 36 statements based on a 4-point Likert-type scale ranging from 0 (*very untrue or often untrue*) to 3 (*very true or often true*). The PID5BF+M delineates six higher order domains and 18 lower order facets. Each facet consists of two items, and each domain is composed of three facets as follows: negative affectivity (emotional lability, anxiousness, and separation insecurity); detachment (withdrawal, anhedonia, intimacy avoidance); antagonism/dissociality (manipulativeness, deceitfulness, grandiosity); disinhibition (impulsivity, irresponsibility, distractibility); anankastia (rigidity, perfectionism, orderliness); and psychoticism (unusual beliefs, perceptual dysregulation, eccentricity).

Table 1
Clinical and Sociodemographic Characteristics of the Sample

Characteristic	*M* (*SD*)/*N* (%)
Age	29.38 (12.14)
Gender	
Male	87 (15.3%)
Female	483 (84.7%)
Education	
Elementary and middle school	26 (4.6%)
High school	77 (13.5%)
College	98 (17.2%)
Unfinished higher education	163 (28.6%)
Completed higher education	206 (36.1%)
Employment status	
Employed	260 (45.6%)
Retired	48 (8.4%)
Unemployed	262 (46%)
Marital status	
Single	265 (46.5%)
Married	100 (17.5%)
Other relationship	165 (28.9%)
Divorced	36 (6.3%)
Widowed	4 (0.8%)
ICD-10 diagnoses of mental disorders	
Schizotypal disorder	92 (16.1%)
Bipolar disorder	100 (17.5%)
Depressive disorder	179 (31.4%)
Anxiety disorder	41 (7.2%)
Obsessive-compulsive disorder	16 (2.8%)
Stress disorders	14 (2.5%)
Dissociative disorders	5 (0.9%)
Somatoform disorders	10 (1.8%)
Eating disorders	19 (3.3%)
Personality disorders	152 (26.7%)
>1 mental disorder	58 (10.2%)

Note. ICD = International Classification of Diseases.

Translation and back-translation of the PID5BF+M items were performed by two psychiatrists who are fluent in both Russian and English. After comparing the text of the back translation with the original, a group of experts approved the Russian version of the PID5BF+M. The final version was initially piloted on 10 psychiatric patients. None of them reported any difficulty understanding the instruction or the meaning of the item content. The Russian version of PID5BF+M is included in Supplemental Material.

The NEO-FFI is a 60-item reduced form of the 240-item NEO Personality Inventory–Revised based on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*; Costa & McCrae, 1992). The inventory was designed to measure five basic traits following the five-factor model of personality (FFM, Big Five): neuroticism, extraversion, openness, agreeableness, and conscientiousness. The psychometric properties of the Russian version of NEO-FFI have been supported in previous research where Cronbach's α coefficients for scale scores ranged from .74 to .83 (Orel & Senin, 2008).

Statistical Analysis

The internal consistency of the PID5BF+M domain scores was estimated by McDonald's omega coefficients (ω; Hayes & Coutts, 2020) and the internal consistency of the facet scores by ordinal alpha coefficients (α), as there are only two items per facet. The average interitem correlations of the domains were also calculated to assess the item homogeneity of the domains.

We subjected the 18 facet scales of the PID5BF+M to exploratory factor analysis (EFA) with default geomin (oblique) rotation and maximum likelihood with robust standard errors (MLR) estimator (Muthén & Muthén, 2012). Consistent with previous studies, the oblique version of geomin rotation was applied (Bach et al., 2020; Riegel et al., 2021). The MLR estimator allows the calculation of standard errors that are robust to nonnormality. Model fit was evaluated using comparative fit index (CFI), Tucker–Lewis index (TLI), root-mean-square error of approximation (RMSEA), and standardized root-mean-square residual (SRMR). We relied on the CFI (above 0.90), TLI (above 0.90), RMSEA (below 0.08), and SRMR (below 0.08) as indicators of adequate model fit (Hu & Bentler, 1999; Marsh et al., 2004).

Student's *T* test was used to examine differences in the domain scores across patients with and without ICD-10 PD diagnosis.

Descriptive statistics and Pearson's correlation analyses were performed in the Statistical Package for the Social Sciences Version 26 (International Business Machines Corporation, 2019). EFA analysis with coefficients of congruence calculations was conducted in Mplus Version 7 (Muthén & Muthén, 2012). Internal consistency coefficients were examined in R software using the «psycho» package (Makowski, 2018).

Results

Internal Consistency

Internal consistency coefficients of the PID5BF+M scores are shown in Table 2. All McDonald's ω coefficients for domain scores were above 0.80 indicating good internal consistency. The ordinal α coefficients for most of the facets (i.e., anxiousness, separation insecurity, deceitfulness, manipulativeness, impulsivity, rigidity, perfectionism, unusual beliefs, perceptual dysregulation, and eccentricity) were acceptable ($\alpha \geq 0.70$). However, the coefficients for orderliness, emotional lability, withdrawal, anhedonia, intimacy avoidance, grandiosity, irresponsibility, and distractibility facets ranged between 0.60 and 0.70, indicating less adequate reliability.

The average interitem correlations for all domains were located within the acceptable range of 0.20–0.50: negative affectivity (0.33), detachment (0.27), antagonism (0.34), disinhibition (0.26), anankastia (0.42), and psychoticism (0.41; Paulsen & BreckaLorenz, 2017).

Structural Validity

The results of the EFA analysis of the six-factor model showed adequate model fit in terms of CFI (0.97), TLI (0.92), RMSEA (0.04; 95% CI [0.03,0.05]; probability RMSEA $\leq 0.05 = 0.82$), and SRMR (0.02). As presented in Table 3, all facets showed an expected pattern of factor loadings for all six domains in terms of coefficients above 0.30.

Table 2

Internal Consistency and Descriptive Statistics for PID5BF+M Domain and Facet Scores

Domains and facets	*M*	*SD*	Skewness	Kurtosis	α	ω
Negative affectivity	**11.0**	**3.97**	**−0.54**	**−0.16**	—	**0.89**
Emotional lability	3.86	1.66	−0.56	−0.44	0.63	—
Anxiousness	4.23	1.81	−0.77	−0.42	0.92	—
Separation insecurity	2.86	1.72	0.02	−0.79	0.74	—
Detachment	**6.80**	**3.69**	**0.17**	**−0.58**	—	**0.84**
Withdrawal	2.48	1.60	0.01	−0.85	0.68	—
Anhedonia	2.80	1.70	0.06	−0.84	0.67	—
Intimacy avoidance	1.52	1.65	0.89	−0.17	0.67	—
Antagonism	**6.07**	**3.90**	**0.47**	**−0.38**	—	**0.88**
Manipulativeness	1.65	1.65	0.71	−0.40	0.71	—
Deceitfulness	2.65	1.73	0.01	−0.94	0.77	—
Grandiosity	1.76	1.58	0.53	−0.66	0.61	—
Disinhibition	**8.62**	**3.68**	**0.04**	**−0.42**	—	**0.83**
Irresponsibility	1.91	1.73	0.63	−0.58	0.60	—
Impulsivity	3.01	1.69	−0.15	−0.83	0.70	—
Distractibility	3.70	1.61	−0.38	−0.58	0.68	—
Anankastia	**7.57**	**4.44**	**0.17**	**−0.75**	—	**0.88**
Perfectionism	2.57	1.82	0.22	−0.95	0.76	—
Rigidity	2.77	1.79	−0.02	−0.97	0.77	—
Orderliness	2.23	1.70	0.27	−0.89	0.60	—
Psychoticism	**6.44**	**4.45**	**0.47**	**−0.45**	—	**0.90**
Unusual beliefs	2.06	1.82	0.53	−0.74	0.73	—
Eccentricity	2.71	1.84	0.14	−0.98	0.79	—
Perceptual dysregulation	1.67	1.84	0.78	−0.57	0.83	—

Note. PID5BF+M = Personality Inventory for *Diagnostic and Statistical Manual of Mental Disorders, fifth edition* and *ICD-11* Brief Form Plus–Modified; *ICD-11* = *International Classification of Diseases 11th revision*; ω = McDonald's omega coefficient; α = ordinal alpha coefficient. Domains are represented in bold values.

Convergent Validity

The correlations between PID5BF+M and NEO-FFI scores are shown in Table 4. Results indicate that each NEO-FFI score had several significant correlations with the PID5BF+M scores. For example, positive correlations were found between the PID5BF+M negative affectivity score ($r = 0.49$) and the NEO-FFI neuroticism score. As expected, the correlations between detachment and Extraversion ($r = -0.60$) and between disinhibition and conscientiousness ($r = -0.49$) were negative.

PID5BF+M Scores in Patients With Personality Disorder

The PID5BF+M scores for patients with and without PD are presented in Table 5. Patients with PD showed significantly higher scores on disinhibition, antagonism, negative affectivity, and psychoticism domains, in that order. The domains of detachment and Anakastia showed no statistically significant differences across the two groups. Table 5 presents cohen's *d* effect sizes for each domain, and the mean differential effect size is .26.

Discussion

The present study aimed to investigate the psychometric properties of *DSM-5* AMPD and *ICD-11* trait domains and facets in Russian psychiatric patients using the 36-item PID5BF+M instrument. To our knowledge, this is the first study to examine the

Table 3
PID5BF+M Factor Structure and Latent Factor Correlations

Facets	Negative affectivity	Detachment	Antagonism	Disinhibition	Anankastia	Psychoticism
Emotional lability	**0.60**	−0.03	−0.01	0.21	−0.01	0.17
Anxiousness	**0.75**	0.14	0.02	−0.06	0.05	−0.01
Separation insecurity	**0.34**	−0.15	0.00	0.20	0.11	−0.04
Withdrawal	0.01	**0.65**	−0.07	−0.02	0.10	0.08
Anhedonia	0.17	**0.59**	0.02	0.08	−0.07	−0.11
Intimacy avoidance	−0.10	**0.50**	0.04	0.00	0.06	0.07
Manipulativeness	−0.02	0.08	**0.86**	0.00	−0.02	−0.02
Deceitfulness	0.08	−0.08	**0.69**	−0.02	0.02	0.02
Grandiosity	0.00	−0.07	**0.34**	0.11	0.24	0.11
Irresponsibility	−0.08	0.12	0.19	**0.34**	−0.05	0.06
Impulsivity	0.04	−0.01	0.00	**0.76**	0.06	−0.02
Distractibility	0.21	0.05	0.00	**0.34**	−0.09	0.21
Perfectionism	−0.01	−0.02	−0.06	0.05	**0.78**	0.02
Rigidity	0.01	0.04	0.03	−0.08	**0.80**	−0.07
Orderliness	0.04	0.02	0.02	0.01	**0.62**	0.12
Unusual beliefs	−0.01	−0.07	0.03	−0.02	0.05	**0.82**
Eccentricity	−0.03	0.08	0.06	0.21	0.04	**0.50**
Perceptual dysregulation	0.09	0.07	−0.03	0.01	−0.08	**0.65**
Detachment	0.06	—				
Antagonism	0.05	0.08	—			
Disinhibition	0.35*	0.14	0.31*	—		
Anankastia	0.25*	−0.01	0.16*	0.06	—	
Psychoticism	0.10	0.28*	0.38*	0.38*	0.21*	—

Note. PID5BF+M = Personality Inventory for *Diagnostic and Statistical Manual of Mental Disorders, fifth edition* and *ICD-11* Brief Form Plus–Modified; *ICD-11* = *International Classification of Diseases 11th revision*. Expected primary loadings are in bold. Estimator: maximum likelihood with robust standard errors; Rotation method: goemin (oblique). Loadings above 0.30 are boldface.
* $p \leq .001$.

PID5BF+M as a standalone measure using a clinical sample. In previous studies, data were extracted from the original 220-item version of PID-5 apart from Riegel et al. (2021) who exclusively used the 36-item form in a nonclinical sample. Our results overall supported its anticipated six-factor structure, domain, and facet-level scale reliability, ability to distinguish PD patients from patients with no PD, and convergence with normal FFM traits.

Structural Validity

Kerber et al. (2022) and Bach et al. (2020) presented a trait model in which six higher order domains subsume 18 lower order facets. In the present study, we conducted EFA analysis to investigate the defined six-factor structure of the PID5BF+M scores and findings are largely consistent with Bach et al. (2020) and Riegel et al. (2021). All the facets showed highest factor loadings on their designated domains without substantial cross-loadings on other domains. This ability of the PID5BF+M to discriminate between scale scores might be attributed to the approach used by Kerber et al. (2022), which deliberately sought to optimize discriminant validity based on the ant colony approach. In addition, the model fit indices of the six-factor EFA model showed good (CFI, RMSEA, SRMR) and acceptable (TLI) fits. These findings can be interpreted as indicating reasonable support for the six-factor domain structure of the PID5BF+M.

Internal Consistency

Consistent with the initial construction studies by Kerber et al. (2022) and Bach et al. (2020), the internal consistency values of

Table 4
Correlations Between PID5BF+M and NEO-FFI Domain Scores

Domains	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness
Negative affectivity	0.49**	−0.05	−0.05	0.01	−0.09
Detachment	0.24**	−0.60**	−0.19*	−0.38**	−0.21*
Antagonism	−0.08	0.27**	0.12	−0.34**	−0.03
Disinhibition	0.21*	0.09	0.04	−0.22*	−0.49**
Anankastia	−0.03	0.05	−0.05	−0.03	0.26**
Psychoticism	0.13	0.00	0.19*	−0.25**	−0.10

Note. PID5BF+M = Personality Inventory for *Diagnostic and Statistical Manual of Mental Disorders, fifth edition* and *ICD-11* Brief Form Plus–Modified; *ICD-11* = *International Classification of Diseases 11th revision*; NEO-FFI = NEO-Five Factor Inventory.
* $p < .01$. ** $p < .001$.

Table 5
Comparison of the PID5BF+M Domain Scores in Patients With and Without Personality Disorders

Domains	*M* (*SD*)		Cohen's *d*	*P* value
	With PDs (n = 152)	Without PDs (n = 418)		
Negative affectivity	11.95 (3.92)	10.59 (3.93)	0.35	<.01
Detachment	6.91 (3.64)	6.76 (3.71)	0.04	.61
Antagonism	7.35 (4.03)	5.60 (3.75)	0.46	<.01
Disinhibition	10.01 (3.61)	8.11 (3.58)	0.53	<.01
Anankastia	7.24 (4.3)	7.70 (4.48)	−0.10	.28
Psychoticism	7.38 (4.09)	6.10 (4.54)	0.29	<.01

Note. PD = personality disorder; PID5BF+M = Personality Inventory for *Diagnostic and Statistical Manual of Mental Disorders, fifth edition* and *ICD-11* Brief Form Plus–Modified; *ICD-11* = *International Classification of Diseases 11th revision.*

the PID5BF+M domain structure were acceptable. Compared to the Czech version of PID5BF+M (2021), the present study showed higher domain-level reliability. The obtained values of the internal consistency were largely satisfactory for individual trait facets. However, they were generally lower than those reported by Kerber et al. (2022) and higher than those reported by Riegel et al. (2021). The average interitem correlations of all domains were located within the acceptable range of 0.2–0.5, indicating homogeneity of the items (Paulsen & BrckaLorenz, 2017). Thus, our results provide support for the internal consistency values of the PID5BF+M scores.

Alignment With Big Five Personality Traits

The convergent validity of the PID5BF+M was investigated by means of correlations with NEO-FFI. In line with previous studies, the AMPD and *ICD-11* trait domains were significantly associated with corresponding FFM domain scores: negative affectivity with neuroticism (r = 49), detachment with reversed extraversion (r = −60), antagonism with reversed agreeableness (r = −34), disinhibition with reversed conscientiousness (r = −47), and anankastia with conscientiousness (r = 26; Al-Dajani et al., 2016; Bach & Mulder, 2022b).

In the present study, anankastia only showed a weak but significant positive association with conscientiousness. Similar results have been found by Oltmanns and Widiger (2018, 2020). Moreover, the AMPD trait domain of psychoticism only showed small but significant correlations with openness and agreeableness. Nevertheless, the psychoticism domain was never truly intended to align with any FFM trait features, although aspects of unconventionality have been proposed as a common feature of both openness and psychoticism (Widiger & Crego, 2019). The weak correlations for psychoticism and openness in the present study are consistent with previous research and support the fact that openness indicates intellect and high functioning while psychoticism indicates perceptual dysregulation and very low functioning (Widiger & Crego, 2019). The aforementioned patterns and deviations from expected findings might in part be explained by cultural factors and therefore warrant further studies.

Ability to Differentiate Personality Disorders From Other Diagnoses

Our study indicated that patients with PD had significantly higher scores on the domains of negative affectvity, antagonism, disinhibition, and psychoticism, while the domains of detachment and anakastia showed comparable scores for patients with and without PD. The composition of trait domains characterizing the PD subsample aligns with the complex configuration of borderline PD (BPD) traits including affect dysregulation (i.e., negative affectivity), anger and physical fights (i.e., antagonism), impulsive behavior (i.e., disinhibition), and transcient psychotic-like perceptions (i.e., psychoticism). This pattern is consistent with the fact that BPD patients (i.e., ICD-10 emotionally unstable personality disorder) are highly prevalent among psychiatric inpatients and comprise more than half of all the inpatients with a PD in the present sample (Kantojärvi et al., 2004). Moreover, the trait domain of detachment may characterize the anhedonia and social withdrawal that often apply to depression and anxiety disorders, which makes it less PD specific. Finally, the stylistic trait features of anankastia (e.g., orderliness and perfectionism) characterize aspects that are often seen in obsessive-compulsive disorder and anorexia nervosa and are therefore not unique for PD (De Caluwé et al., 2014; Solomon-Krakus et al., 2020).

Limitations and Future Directions

The findings of the present study should be interpreted in the light of potential limitations.

First, the study was conducted using a sample of psychiatric inpatients, which may have caused some range restriction due to the anticipated severity of psychopathology. Further research on the Russian PID5BF+M might therefore benefit from including outpatients with milder manifestations of psychopathology and community-dwelling participants.

Second, the study predominantly included female patients, which may have caused some bias of the results. However, this gender composition overall mirrors the composition of patients undergoing inpatient treatment at the Moscow Research and Clinical Centre for Neuropsychiatry, which is also consistent with WHO data showing that females are substantially more prevalent in mental health services while males are seen in other settings such as addiction treatment centers (Gough & Novikova, 2020; Tindimwebwa et al., 2021).

Third, the diagnosis of a mental disorder was carried out based on the "expert opinion" of a psychiatrist conducting a clinical and psychopathological examination rather than on the results of a structured interview. In this regard, there could be a risk of underdiagnosed previous psychotic episodes or latent psychotic symptomatology (Martynikhin, 2021).

Fourth, when assessing the reliability of the PID5BF+M scores, we did not examine test–retest reliability and the anticipated trait-like stability over time, which should be addressed in future research.

Fifth, the study was conducted in the first year of the coronavirus pandemic, and the beginning of the study coincided with the end of the first lockdown. The situation with coronavirus infection has a negative impact on the mental health of the population (Santomauro et al., 2021), which could have influenced the obtained results.

Finally, the present study did not take overall PD severity into account, which is the foundation of a PD diagnosis according to both AMPD and *ICD-11*. Nevertheless, the overall PID5BF+M score may be utilized as an empirically supported proxy for PD severity (Zimmermann et al., 2020). Thus, the mean Cohen's *d* effect size of .26 may indicate that PD patients are characterized by more severe personality dysfunction than patients with no PD. This interpretation particularly applies to features of disinhibition, antagonism, negative affectivity, and psychoticism, in that order. In any case, future Russian research should include assessment of overall PD severity using instruments such as Personality Disorder Severity *ICD-11* (Bach et al., 2021) or the Level of Personality Functioning Scale–Brief Form (Weekers et al., 2019).

Conclusion

The present study provided initial support for the psychometric properties of patient-reported AMPD and *ICD-11* trait domains and facets among Russian inpatients by means of the 36-item PID5BF+M. Accordingly, our findings overall supported the anticipated six-factor structure of AMPD and *ICD-11* traits, the internal consistency of PID5BF+M scores, the ability of PID5BF+M scores to distinguish PD patients from patients with no PD, and the convergence of the six combined AMPD and *ICD-11* trait domain scores with normal FFM trait domain scores. Taken together, clinicians and researchers in Russian-speaking mental health services are now able to assess domain- and facet-level features of the AMPD and *ICD-11* trait models in a combined approach that is feasible and psychometrically acceptable.

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Received September 28, 2022
Revision received December 24, 2022
Accepted January 12, 2023 ■