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ARTIGO

Medição de Traços Patológicos da Personalidade com o PID5BF+M: Propriedades Psicométricas e Dados Normativos Brasileiros

Measuring Pathological Personality Traits with the PID5BF+M: Psychometric Properties and Brazilian Normative Data

Medición de Rasgos Patológicos de la Personalidad con el PID5BF+M: Propriedades Psicométricas y Datos Normativos Brasileños

Sérgio Eduardo Silva de Oliveira[1]
orcid.org/0000-0003-2109-4862
sergioeduardos.oliveira@gmail.com

Joana Bücker[2]
orcid.org/0000-0001-8335-2404
joana.bucker@gmail.com

Lucas Dannilo Aragão Guimarães[3]
orcid.org/0000-0002-3452-0026
lucasdannilo@ccs.uespi.br

André Pereira Gonçalves[4]
orcid.org/0000-0002-2470-4040
andregoncalvespsi@gmail.com

Robert Frank Krueger[5]
orcid.org/0000-0001-9127-5509
krueg038@umn.edu

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Resumo: O Personality Inventory for DSM-5 – Brief Form Plus Modified (PID5BF+M) é amplamente utilizado para avaliar traços de personalidade patológicos, mas é necessária a avaliação psicométrica em populações brasileiras. Este estudo investigou a estrutura interna, a confiabilidade, a validade e os dados normativos do PID5BF+M brasileiro. Participaram um total de 4.415 brasileiros, provenientes de quatro bases de dados que já haviam utilizado o instrumento. Os dados foram coletados por meio de redes sociais. A replicabilidade da estrutura fatorial foi avaliada e as correlações com medidas relacionadas à personalidade foram analisadas. Os resultados indicaram consistência interna aceitável para as 16 das 18 facetas (média = 0,64, DP = 0,11). A estrutura de seis fatores foi replicada, e os escores fatoriais apresentaram correlações consistentes com medidas externas. Dados normativos são apresentados. Esses achados fornecem evidências da confiabilidade e validade do PID5BF+M brasileiro, apoiando sua aplicação segura em avaliações clínicas e em pesquisas futuras sobre traços de personalidade patológicos.

Palavras-chave: Estudo de Validação; Transtornos da Personalidade; Diagnóstico.

Abstract: The Personality Inventory for DSM-5 – Brief Form Plus Modified (PID5BF+M) is widely used to assess pathological personality traits, but psychometric evaluation in Brazilian populations is necessary. This study examined the internal structure, reliability, validity, and normative data of the Brazilian PID5BF+M. A total of 4,415 Brazilian participants were included, drawn from four databases that had previously used the instrument. Data was collected via social media. The replicability of the factorial structure was evaluated, and correlations with personality-related measures were analyzed. Results indicated acceptable internal consistency for 16 of the 18 facets (mean = 0.64, SD = 0.11). The six-factor structure was successfully replicated, and factor scores showed consistent correlations with external measures. Normative data are provided. These findings offer evidence for the reliability and validity of the Brazilian PID5BF+M, supporting its safe use in clinical assessment and future research on pathological personality traits.

Keywords: Validation Study; Personality Disorders; Diagnosis.

Resumen: El Personality Inventory for DSM-5 – Brief Form Plus Modified (PID5BF+M) se utiliza ampliamente para evaluar rasgos de personalidad patológicos, pero es necesaria una evaluación psicométrica en poblaciones brasileñas. Este estudio examinó la estructura interna, la fiabilidad, la validez y los datos normativos del PID5BF+M brasileño. Participaron un total de 4.415 brasileños, procedentes de cuatro bases de datos que previamente habían utilizado el instrumento. Los datos se recopilaron a través de redes sociales. Se evaluó la replicabilidad de la

[1] Universidade de Brasília (UNB), Brasília, Distrito Federal, Brasil.
[2] Universidade do Vale do Taquari (Univates), Lajeado, Rio Grande do Sul, Brasil.
[3] Universidade Estadual do Piauí (UESPI), Teresina, Piauí, Brasil.
[4] Universidade Federal da Bahia (UFBA), Vitória da Conquista, Bahia, Brasil.
[5] University of Minnesota, Minneapolis, MN, United States of America.

estructura factorial y se analizaron las correlaciones con medidas relacionadas con la personalidad. Los resultados indicaron una consistencia interna aceptable para 16 de las 18 facetas (media = 0,64, DE = 0,11). La estructura de seis factores se replicó con éxito, y los puntajes factoriales mostraron correlaciones consistentes con medidas externas. Se presentan datos normativos. Estos hallazgos proporcionan evidencia de la fiabilidad y validez del PID5BF+M brasileño, respaldando su uso seguro en la evaluación clínica y en investigaciones futuras sobre rasgos de personalidad patológicos.

Palabras clave: Estudio de Validación; Trastornos de la Personalidad; Diagnóstico.

Introduction

Personality disorders (PDs) are pervasive disturbances manifested in maladaptive patterns of cognition, behavior, and emotional experience and expression. They are prevalent in healthcare settings, can impact treatment outcomes, and are associated with early mortality, poorer social functioning, and increased societal costs (Newton-Howes, 2014; Tyrer et al., 2015; World Health Organization [WHO], 2019). Despite the considerable prevalence of PDs in contemporary society, accurate diagnosis remains a significant challenge for clinicians, frequently leading to delays in the initiation of appropriate, evidence-based treatment (McGrath & Reynolds, 2024). The assumption that mental disorders are dichotomous further complicates the challenge of specifying these diagnoses accurately, resulting in high comorbidity rates and a weak scientific foundation for most diagnostic criteria (Tyrer et al., 2015).

PDs have historically been characterized as chronic and inflexible conditions, with persistent behavioral patterns. However, in recent years, growing empirical evidence has challenged this static conception, suggesting that they may be more dynamic and susceptible to change over time than initially believed (d'Huart et al., 2023). Although PDs are considered "relatively" stable, comorbidity with other disorders, the use of different diagnostic instruments, and the study context can significantly influence the stability of these diagnoses (Morey & Hopwood, 2013; Hopwood & Bleidorn, 2018). This debate about stability has sparked increased interest in investigating factors that may influence diagnostic variation over time, leading to a reconsideration of traditionally categorical approaches in favor of more dimensional and flexible models of PD conceptualization and assessment.

There are two main theoretical models for understanding PDs: the categorical model and the dimensional model. The categorical model is the most traditional and is adopted by diagnostic systems such as the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD), the latter having transitioned to a dimensional model in its latest edition (ICD-11; WHO, 2019). In the categorical model, PDs are treated as discrete clinical entities, meaning that the individual either has the disorder or does not (Clarkin et al., 2020). Each PD is described by a specific set of diagnostic criteria that must be met in order for the diagnosis to be established.

The dimensional model, on the other hand, proposes that PDs are understood as extreme variations of normal personality traits, rather than as distinct clinical categories. In this model, personality is described in terms of continuous dimensions or traits, which vary according to their intensity (Huprich, 2020; Mulder, 2021). For example, traits such as impulsivity, negative emotionality, or introversion may be present to varying degrees in all individuals, and PDs would result from extreme levels of these traits when combined with impairments in self- and interpersonal functioning.

The latest diagnostic classification manuals for mental disorders, such as the ICD-11 (WHO, 2018) and the DSM-5's Alternative Model for Personality Disorders (AMPD), Section III (APA, 2022), propose a new dimensional approach to classifying PDs, shifting the diagnosis from a categorical to a dimensional perspective. The focus of these two descriptive classification systems is on assessing maladaptive personality traits and the overall severity of the disorder. Nevertheless, they differ in how they delineate their respective pathological personality domains. Furthermore, the use of validated scales that

clinicians can apply across diverse healthcare settings, incorporating a dimensional model for diagnosing PDs, is crucial in the current context.

Psychometric assessments are critical tools that provide supplementary support for achieving more accurate diagnoses. The Personality Inventory for DSM-5 Brief Form Plus Modified (PID5BF+M; Bach et al., 2020), which is a modified version of the PID5BF+ (Kerber et al., 2022), is a self-report tool that assesses maladaptive personality traits based on the dimensional classifications of PDs in DSM-5 Section III and ICD-11, and it has shown satisfactory psychometric properties (Abdolahpur et al., 2025; Bach et al., 2020; Ebert et al., 2025; Komasi & Bach, 2025; Komasi et al., 2025; Pires et al., 2023; Riegel et al., 2021; Zinchuk et al., 2023). The validation study demonstrated that the PID5BF+M can be utilized by clinicians and researchers for a brief and reliable assessment of the six combined domains of DSM-5 and ICD-11 (Bach et al., 2020). Additionally, Pires et al. (2021) established that the total score of this scale serves as a global indicator of personality dysfunction severity and can delineate specific manifestations of personality traits. The PID5BF+M explores six important trait domains, including Negative Affectivity, Detachment, Antagonism/Dissociality, Disinhibition, Anankastia, and Psychoticism, as well as 18 facets. This instrument also offers several significant advantages, such as the rapid assessment of psychopathological personality traits, while requiring minimal time to complete the questionnaire and for the clinician to present the results.

Aims and Hypothesis

Although the initial psychometric properties of the Brazilian version of the PID5BF+M were presented by Bach et al. (2020), that study included data from the administration of the 220-item version of the PID-5 Brazilian version (Oliveira et al., 2021). Therefore, to our knowledge, this is the first study designed to investigate the psychometric properties of the PID5BF+M using data from the administration of the 36-item version in a large Brazilian sample. The current study aims to investigate the internal structure, reliability coefficients, evidence of validity based on the correlation with external measures, and establish the normative data for score interpretation of the PID5BF+M – Brazilian version. In order to obtain evidence of validity for the PID5BF+M, we will test the following hypotheses:

Structural Validity H1: Considering that the PID5BF+M is intended to be an integrative model of the multidimensional models of pathological personality traits from the DSM-5 and ICD-11, we hypothesize that the Brazilian data will fit the six-factor structure of the proposed model. Bach et al. (2020) observed good fit indices for the six-factor structure based on data from many countries, including Brazil. However, they used modeled data, as participants responded to the full version of the PID-5 (i.e., 220 items). Our hypothesis is that the 36-item version of the PID-5 will properly fit the six-factor model.

Convergent Validity H2: The dimensional model of PDs indicates that personality pathology is characterized by impairments in self- and interpersonal functioning, as well as by dysfunctional personality traits (APA, 2022; WHO, 2018). Thus, it is expected that individuals with moderate or severe impairments in personality functioning will present pathological personality traits. Furthermore, research has indicated a strong association between these constructs (i.e., personality functioning and pathological personality traits), including difficulties in psychometrically differentiating them (Martí Valls et al., 2023). Therefore, our hypothesis is that the PID5BF+M will show positive and statistically significant correlations ($r \geq .20$) with measures of impairment in personality functioning (H2a). Additionally, García et al. (2022) observed a strong relationship between the PID-5 and a measure of maladaptive personality traits according to the ICD-11 model, called the Personality Inventory for ICD-11 (PiCD; Oltmanns & Widiger, 2018). Our hypothesis is that the 36-item version of the PID5BF+M will show a comprehensive pattern of convergent/discriminant validity with the PiCD (H2b). We expect

that the corresponding factors between these instruments will display the strongest correlation coefficients ($r \geq .50$). Finally, the ICD-11 model for PDs retained the category of borderline PD as a qualifier for PD (McCabe & Widiger, 2020; Tyrer et al., 2019). However, many studies have indicated that borderline PD is already represented in the Negative Affectivity and Disinhibition domains (Bach et al., 2018; Kim et al., 2021; Lugo et al., 2019; Oliveira et al., 2020; Oltmanns & Widiger, 2019; Selbom et al., 2020; Simon et al., 2023). Thus, to obtain convergent validity evidence for the PID5BF+M, we expect to find positive and statistically significant correlation coefficients ($r \geq .50$) between the Negative Affectivity and Disinhibition domains and symptoms of the borderline pattern (H2c), measured through the Borderline Pattern Scale (BPS; Oltmanns & Widiger, 2019; Oliveira & Oliveira, 2023).

Concurrent Validity H3: Research has indicated a significant association between pathological personality traits and various psychological or clinical conditions (Hopwood et al., 2013). Additionally, studies estimate that the prevalence of PDs in the general population is around 13% (Torgersen et al., 2001), whereas this rate rises to approximately 45% among psychiatric patients (Zimmerman et al., 2005). Therefore, it is not surprising that individuals experiencing psychopathological difficulties tend to exhibit higher levels of pathological personality traits. Based on this, we hypothesize that individuals who self-report having a psychiatric diagnosis will have higher scores on the PID5BF+M than those who self-report not having a psychiatric diagnosis.

Method

Participants

This study included four samples from research databases conducted at the Center for Studies in Clinical Psychological Assessment (*Núcleo de Estudos em Avaliação Psicológica Clínica* - NEAPSIC), linked to the Laboratory for Research in Assessment and Measurement (Laboratório de Pesquisa em Avaliação e Medidas - LabPAM) at the University of Brasília (UnB). After excluding participants who failed the response quality control items, for example, "show that you are paying attention by selecting the number three" (n = 117) and those who presented scores that deviated from |1.96| standard deviation from the mean (n = 196), considering the sum of the 36 items of the PID5BF+M, the final sample was composed of 4,415 individuals. Table 1 presents the sociodemographic characteristics of the samples included in this study.

Table 1 - *Descriptive Statistics for Sample.*

	Database 1	Database 2	Database 3	Database 4	Total
N	1,882	282	917	1,334	4,415
Age [A]					
- Min | Max	10 | 79	12 | 78	13 | 67	13 | 83	10 | 83
- M (SD)	34.15 (13.56)	40.67 (14.41)	31.50 (9.68)	30.90 (10.70)	33.03 (12.31)
Gender *f* (%) [B]					
- Male	492 (26,1)	72 (25.5)	244 (26.6)	318 (23.8)	1,126 (25.5)
- Female	1,379 (73,3)	210 (74.5)	664 (72.4)	1,007 (75.5)	3,260 (73.8)
- Other	11 (0.6)	0 (0.0)	9 (1.0)	9 (0.7)	29 (0.7)
Race/Ethnicity *f* (%) [C]					
- White	1,143 (60.7)	153 (54.3)	511 (55.7)*	809 (60.6)	2,625 (59.2)
- Black	127 (6.7)*	12 (4.3)*	91 (9.9)*	117 (8.8)	350 (7.9)
- Asian	56 (3.0)*	10 (3.5)	14 (1.5)*	27 (2.0)	107 (2.4)
- Brown	539 (28.6)	105 (37.2)*	285 (31.1)	373 (28.0)	1,308 (29.5)
- Indigenous	1 (0.1)*	1 (0.4)	9 (1.0)*	2 (0.1)	13 (0.3)

	Database 1	Database 2	Database 3	Database 4	Total
- Other	16 (0.9)	1 (0.4)	7 (0.8)	6 (0.4)	30 (0.7)
Region *f* (%) [D]					
- North	14 (0.7)*	-	34 (3.7)*	26 (1.9)	74 (1.8)
- Northeast	79 (4.2)*	-	113 (12.3)*	132 (9.9)*	324 (7.8)
- Middle-West	1,188 (63.1)*	-	328 (35.8)*	673 (50.4)*	2,189 (53.0)
- Southeast	506 (26.9)	-	320 (34.9)*	297 (22.3)*	1,123 (27.2)
- South	95 (5.0)*	-	122 (13.3)*	206 (15.4)*	423 (10.2)
Marital Status *f* (%) [E]					
- Single	1,051 (55.8)	94 (33.3)*	520 (56.7)	812 (60.9)*	2,477 (56.1)
- Married	631 (33.5)	149 (52.8)*	340 (37.1)	425 (31.9)*	1,545 (35.0)
- Divorced	164 (8.7)*	31 (11.0)*	42 (4.6)*	72 (5.4)*	309 (7.0)
- Widowed	21 (1.1)*	3 (1.1)	2 (0.2)*	8 (0.6)	34 (0.8)
- Other	15 (0.8)	5 (1.8)	13 (1.4)	17 (1.3)	50 (1.1)
Educational Level *f* (%) [F]					
- Low	34 (1.8)	17 (6.0)*	17 (1.9)	19 (1.4)	87 (2.0)
- Medium	662 (35.2)	84 (29.8)	260 (28.4)*	505 (37.9)*	1,511 (34.2)
- High	1,186 (63.0)	181 (64.2)	640 (69.8)*	810 (60.7)*	2,817 (63.8)
Socioeconomic level *f* (%) [G]					
- Low	275 (14.6)*	55 (19.5)	276 (30.1)*	327 (24.5)*	933 (21.1)
- Medium	944 (50.2)*	151 (53.5)	516 (56.3)*	704 (52.8)	2,315 (52.4)
- High	663 (35.2)*	76 (27.0)	125 (13.6)*	303 (22.7)*	1,167 (26.4)
Psychiatric diagnosis *f* (%) [H]					
- No	1,368 (72.7)	21 (74.5)	662 (72.2)	1,011 (75.8)	3,251 (73.6)
- Yes	514 (27.3)	72 (25.5)	255 (27.8)	323 (24.2)	1,164 (26.4)

Note. [A] *Welch* $F(3,1141.479) = 52.602$, $p < .001$ *(Games-Howell post hoc tests indicated differences across all databases except between databases 3 and 4;* [B] $x^2(6) = 6.512$, $p = .368$; [C] $x^2(15) = 55.817$, $p < .001$; [D] $x^2(8) = 307.817$, $p < .001$; [E] $x^2(12) = 101.287$, $p < .001$; [F] $x^2(6) = 49.732$, $p < .001$; [G] $x^2(6) = 203.781$, $p < .001$; [H] $x^2(3) = 5.135$, $p = .162$; * *asterisk indicates statistically significant differences (adjusted residual of the chi-squared tests ≥ |2|).*

Although the study was advertised for adults, a small number of minors voluntarily completed the survey. Because data collection was entirely online, anonymous, and involved no sensitive or potentially harmful content, their participation is considered ethically acceptable. Excluding these cases would not be required under international ethical standards (APA, 2017; World Medical Association, 2013), as the study posed minimal risk and no identifying information was obtained. In fact, personality pathology assessment in adolescents is increasingly supported by empirical evidence (De Clercq et al., 2014; Hualparuca-Olivera et al., 2024; Wu et al., 2024), which suggests that such data can provide valid and meaningful information. Furthermore, excluding these cases would disregard the genuine participation of minors who voluntarily engaged in the research process. Their responses reflect authentic perspectives that, although not initially targeted, contribute to the representativeness and ecological validity of the dataset. Therefore, retaining these cases is ethically and scientifically justifiable and does not compromise participant protection or the validity of the findings (APA, 2017; World Medical Association, 2013).

Instruments

Sociodemographic and Health Questionnaire (SHQ): We developed a questionnaire to collect information on sociodemographic factors such as age, gender, socioeconomic status, education level, marital status, and ethnicity, as well as health-related data, including any psychiatric diagnoses.

Personality Inventory for DSM-5 – Brief Form – Plus Modified (PID5BF+M; Bach et al., 2020): The

PID5BF+M is a self-report measure consisting of 36 items, assessed on a 4-point Likert scale ranging from 0 ("very false or often false") to 3 ("very true or often true"). This instrument is derived from the original PID-5 (Krueger et al., 2012) and integrates pathological personality traits from both DSM-5 and ICD-11 into six domains: Negative Affectivity, Detachment, Antagonism, Disinhibition, Anankastia, and Psychoticism. In this study, we used the Brazilian version of the PID-5, adapted by Oliveira et al. (2021). The initial psychometric evaluation of the Brazilian version of the PID5BF+M shows promising results (Bach et al., 2020).

Level of Personality Functioning Scale – Brief Form – 2.0 (LPFS-BF-2.0; Weekers et al., 2019): This scale is based on Criterion A of the AMPD and contains 12 items, each representing a specific subdomain of personality functioning. Respondents rate each item on a 4-point Likert scale from 1 ("very false or often false") to 4 ("very true or often true"). The items are typically aggregated into two scales: self-functioning and interpersonal functioning, (six items each). Higher scores indicate greater impairments in personality functioning. In this study, we utilized the Brazilian version of the LPFS-BF-2.0 adapted by Oliveira et al. (2023).

Personality Disorder Severity ICD-11 (PDS--ICD-11; Bach et al., 2021): The PDS-ICD-11 is a self-report instrument consisting of 14 items that assess the ICD-11 guidelines for self- and interpersonal dysfunction, as well as related emotional, cognitive, and behavioral manifestations, also including psychosocial impairment and distress. For each item, respondents choose the description that best reflects their level of functioning from up to five options. The first ten items are bipolar, with the middle option indicating normal functioning, while the last four items are unipolar. The responses are scored based on the severity of the selected descriptions, resulting in a total score ranging from 0 to 32. The Brazilian version of the PDS-ICD-11 used in this study has not yet been published.

Personality Inventory for ICD-11 (PiCD; Oltmanns & Widiger, 2018): The PiCD is a 60-item self-report tool designed to measure the five domains of the dimensional ICD-11 personality model (WHO, 2019): Negative Affectivity, Detachment, Dissociality, Disinhibition, and Anankastia. Each domain consists of 12 items, with responses rated on a 5-point Lickert scale from 1 ("strongly disagree") to 5 ("strongly agree"). In this study, we used the Brazilian version of the PiCD, which was adapted by Oliveira (2021).

Borderline Pattern Scale (BPS; Oltmanns & Widiger, 2019): The BPS is a 12-item scale designed to assess the four core components of borderline personality functioning, with three items dedicated to each component. The items are rated on a 5-point Lickert scale from 1 ("strongly disagree") to 5 ("strongly agree") and measure four subscales: Affective Instability, Maladaptive Self-Functioning, Maladaptive Interpersonal Functioning, and Maladaptive Regulation Strategies. The Brazilian version of the BPS used in this study was adapted by Oliveira and Oliveira (2023).

Procedures

For this study, four research databases conducted at NEAPSIC that used the PID5BF+M were combined. All surveys were conducted online using the open-source software former (Arslan et al., 2020). For data collection, we recruited participants through social media platforms such as Facebook and Instagram. After giving informed consent to participate, volunteers were directed to complete the SHQ and other survey instruments, including the PID5BF+M. Response quality control items were included in all survey protocols to verify that participants were responding to the survey instruments attentively. Between five and seven attention-check items were included across the different datasets. These items required participants to select a specific response option, with each item indicating a predetermined correct choice (e.g., one item instructed participants to select option three, while another required option one). Participants who failed any of these items were excluded from the analyses, as failure to select the specified

option was considered indicative of inattentive or random responding. Another strategy to collect high-quality data was to offer a direct benefit to participants by providing automated feedback that included a descriptive interpretation of their scores on the scale.

Data analysis

We conducted descriptive analyses to characterize the sample used in the study. It is important to note that all items were mandatory; therefore, there were no missing data and no imputation procedures were required. To evaluate the factor structure of the PID5BF+M, we performed Exploratory Structural Equation Modeling (ESEM). We tested a model with six dimensions based on the AMPD and ICD-11 PD models. The estimator employed was Weighted Least Squares Mean and Variance-Adjusted (WLSMV) with geomin oblique rotation. We utilized the following fit indices to assess the model: Chi-square (^{2}/df < 3), Comparative Fit Index (CFI > 0.95), Tucker-Lewis Index (TLI > 0.95), Root Mean Square Error of Approximation (RMSEA < 0.06), and Standardized Root Mean Square Residuals (SRMR < 0.06; Hair Jr. et al., 2005; Hu & Bentler, 1999). For ESEM, we used the "lavaan" (Rosseel, 2012) and "GPArotation" (Bernaards & Jennrich, 2005) R packages. We tested measurement invariance of the six-factor PID5BF+M across groups (comparing the four dataset, psychiatric diagnosis groups, and gender groups) using multigroup confirmatory factor analysis (MGCFA) with the WLSMV estimator for ordinal items, examining configural, metric, and scalar models and evaluating fit with CFI, TLI, RMSEA, SRMR, and ΔCFI. We assessed the reliability of the factors and facets of the instrument using Cronbach's alpha and McDonald's omega. The data were analyzed in R using the "psych" package (Revelle, 2024).

To examine the convergent and discriminant validity of the PID5BF+M based on its relation to other measures of personality pathology, we performed Pearson correlation analyses using the "psych" package (Revelle, 2024). Then, to examine differences between participants with and without a self-reported psychiatric diagnosis, we conducted Welch's t-tests on the factors and facets of the PID5BF+M. Participants indicated whether they had a psychiatric diagnosis by responding yes or no to a single item. No specific time frame (e.g., current versus past diagnosis) was requested. Welch's t-test was chosen due to its robustness in handling unequal variances between groups, making it a suitable choice for this analysis. For each variable, we calculated the mean and standard deviation within each group. To quantify the effect size, we calculated Hedge's g, which provides a measure of the magnitude of the difference between the two groups and is recommended because it corrects for bias in unequal sample sizes. We used the "psych" (Revelle, 2024) and "effectsize" (Ben-Shachar et al., 2020) packages to facilitate the statistical tests and effect size calculations, respectively.

Ethical Considerations

The procedures of this study complied with the provisions of the Declaration of Helsinki regarding research on human participants (World Medical Association [WMA]). All participants provided digital consent for data usage. Furthermore, all databases were collected from research approved by a human research ethics committee, ensuring that participants' rights were protected throughout the studies (CAAE 79083417.3.0000.5540 / 45817421.6.0000.5540 / 81879424.3.0000.5540 / 25480619.0.0000.5540).

Results

Facet Reliability

Our first objective was to examine whether facet scores are psychometrically appropriate for reliably capturing the stylistic personality traits of Brazilian individuals. Table 2 presents descriptive statistics and reliability indicators for the facet scales. The mean Cronbach's alpha coefficient for the 18 facets was .64 (SD = .11). Notably, two facets demonstrated unacceptable reliability coefficients (i.e., α < .50): grandiosity

(α = .44) and irresponsibility (α = .44). Given that these facets are ultra-brief scales consisting of only two indicators each, these results are promising; however, the scores for grandiosity and irresponsibility facets should be interpreted with caution. Several factors may contribute to their lower reliability, including the limited number of items, potential heterogeneity in the behaviors captured, and cultural nuances in the Brazilian context that might affect how respondents interpret these items. It is worth noting that the pairs of items that make up these facets are positively correlated with each other (r = .28).

Table 2 - *Reliability Coefficients and Descriptive Statistics of the PID5BF+M Facets.*

Facet	α	r^A	Minimum	Maximum	M	SD	Skew.	Kurt.
Anxiousness	.86	.75	0	6	3,75	1,86	-0,34	-1,01
Emotional lability	.63	.46	0	6	2,82	1,81	0,18	-0,97
Separation insecurity	.57	.42	0	6	1,52	1,52	0,96	0,31
Anhedonia	.66	.49	0	6	1,75	1,66	0,72	-0,34
Intimacy avoidance	.71	.56	0	6	0,88	1,43	1,78	2,54
Withdrawal	.65	.49	0	6	1,63	1,51	0,69	-0,21
Deceitfulness	.52	.36	0	6	1,26	1,38	1,08	0,66
Grandiosity	.44	.28	0	6	0,81	1,18	1,60	2,32
Manipulativeness	.67	.54	0	6	0,89	1,30	1,63	2,37
Distractibility	.76	.61	0	6	2,60	1,83	0,30	-0,92
Impulsivity	.77	.63	0	6	1,66	1,58	0,78	-0,11
Irresponsibility	.44	.28	0	6	1,06	1,31	1,30	1,29
Orderliness	.64	.47	0	6	1,74	1,68	0,77	-0,28
Perfectionism	.72	.57	0	6	2,46	1,79	0,30	-0,89
Rigidity	.67	.50	0	6	2,66	1,65	0,22	-0,72
Eccentricity	.67	.51	0	6	1,52	1,66	0,98	0,09
Perceptual dysregulation	.57	.39	0	6	0,72	1,23	1,96	3,67
Unusual beliefs and experiences	.50	.33	0	6	2,31	1,72	0,39	-0,70

Note. ^{A} *correlation between the pair of items that compose the facet; Skew. = Skewness; Kurt. = Kurtosis.*

Structural Validity and Factor Reliability

Our second objective was to examine whether the six-dimensional structure would be replicated in the sample of this study. To this end, we conducted an ESEM to verify whether the fit indices and standardized coefficients of the model would support the joint structure of DSM-5 and ICD-11 traits throughout the PID5BF+M. The fit indices indicated the model fits the data [$x^2(60)$ = 429.599, p < .001; CFI = .988; TLI = .969; RMSEA = .037 (90%CI = .034 - .041); SRMR = .016]. Table 3 presents the standardized coefficients of the model. Along with the fit indices of the model that indicated the adequacy of the six-dimensional structure to the data, the standardized coefficients confirm the factors' contents. All factors also demonstrated adequate reliability coefficients (> .70). These results fully confirm our first hypothesis (H1).

Table 3 - *Exploratory Structural Equation Modeling Standardized Coefficients*

Facets	NA	DET	ANT	DIS	PSY	ANA	Varian.
Anxiousness	**.51**	.11	.06	.01	-.01	**.35**	.46
Emotional lability	**.60**	-.15	-.02	.03	.28	.02	.48
Separation insecurity	**.53**	.01	.21	-.04	.03	-.05	.65
Anhedonia	.17	**.58**	.01	.14	-.01	-.01	.51

Facets	NA	DET	ANT	DIS	PSY	ANA	Varian.
Intimacy avoidance	-.08	**.48**	-.01	.06	.15	.00	.67
Withdrawal	.01	**.64**	.00	.00	.14	.06	.47
Deceitfulness	.01	-.15	**.85**	.08	-.01	.03	.26
Grandiosity	.10	.00	**.48**	-.07	.10	.00	.72
Manipulativeness	-.11	.01	**.65**	.01	.10	-.13	.55
Distractibility	.12	.03	-.10	**.58**	.04	.01	.60
Impulsivity	.24	-.11	.02	**.53**	-.01	-.02	.60
Irresponsibility	.00	.00	.01	**.61**	.02	-.21	.58
Eccentricity	-.11	.12	.09	.09	**.60**	.01	.46
Perceptual dysregulation	.03	.01	.00	.00	**.70**	-.14	.57
Unusual beliefs and experiences	.01	-.01	.16	-.07	**.71**	-.07	.47
Orderliness	.07	.00	.00	-.08	.14	**.63**	.49
Perfectionism	-.01	-.13	.00	.03	.10	**.74**	.41
Rigidity	.01	.02	.15	-.03	.00	**.73**	.38
Interfactor correlations and reliability α | ω							
Negative affectivity (NA)	.75|.84						
Detachment (DET)	.08	.73|.84					
Antagonism (ANT)	.21	.34	.71|.76				
Disinhibition (DIS)	.39	.38	.54	.72|.82			
Psychoticism (PSY)	.28	.37	.50	.53	.73|.80		
Anankastia (ANA)	.22	.24	.28	.04	.45	.81|.86	

Note. Factor loading ≥ \|.30\| are in bold; Varian. = variances.

The MGCFA results indicate that the six-factor model of the PID5BF+M exhibits good fit across all grouping variables (see Table 4). For dataset, the configural model showed adequate fit (CFI = .970, RMSEA = .054), suggesting that the basic factor structure is consistent across the four data sources. Metric invariance was supported (ΔCFI = .0012), indicating that factor loadings are comparable across groups. However, scalar invariance showed a larger change in CFI (ΔCFI = .017), suggesting that item intercepts may differ slightly across data sources, and full scalar invariance may not be tenable. For psychiatric diagnostic groups, both metric (ΔCFI = .0013) and scalar invariance (ΔCFI = .0010) were supported, indicating that the model demonstrates strong measurement invariance across clinical vs. community samples. For gender, metric invariance was fully supported (ΔCFI = .0011), and scalar invariance was also acceptable (ΔCFI = .0042), indicating that the factor structure, loadings, and intercepts are largely comparable between males and females. Overall, these results suggest that the six-factor structure of the PID5BF+M is robust and largely invariant across different groups, allowing meaningful comparisons of latent factor scores.

Table 4 - *Multigroup Confirmatory Factor Analysis*

Grouping	Model	CFI	TLI	RMSEA	SRMR	ΔCFI
Dataset	Configural	.970	.962	.054	.054	-
	Metric	.969	.963	.053	.055	.0012
	Scalar	.952	.962	.054	.055	.017
Psychiatric diagnostic	Configural	.968	.959	.052	.050	-
	Metric	.967	.959	.052	.051	.0013
	Scalar	.966	.969	.046	.051	.001

Grouping	Model	CFI	TLI	RMSEA	SRMR	ΔCFI
Gender	Configural	.971	.963	.052	.049	-
	Metric	.970	.963	.052	.050	.0011
	Scalar	.966	.969	.048	.050	.0042

Note. CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residuals; ΔCFI = difference between CFI of the previous model and CFI of the current model

Convergent and Discriminant Validity

The expected correlations were observed (see Table 5), indicating a theoretically consistent pattern of convergence and discrimination. All factors of the PID5BF+M positively correlated ($r \geq .20$) with impairment in personality functioning, as measured by the AMPD (LPFS-BF-2.0) and the ICD-11 PD model (PDS-ICD-11). These results confirm one of our hypotheses (H2a). Additionally, the corresponding factors between the PID5BF+M and the PiCD displayed the strongest correlation coefficients ($r \geq .50$). This finding also supports another formulated hypothesis (H2b). Finally, our hypothesis that Negative Affectivity and Disinhibition would be correlated with the borderline pattern ($r \geq .50$) was fully confirmed (H2c). All these results provide evidence of convergent validity of the PID5BF+M.

Table 5 - *Correlation Between PID5BF+M Factors and External Variables*

	NA	DET	ANT	DIS	ANA	PSY
LPFS-BF-2.0 (*n* = 2,208)						
- Total (α = .86)	.57***	**.58*** **	.32***	.52***	.26***	.45***
- Self (α = .85)	**.60*** **	.47***	.23***	.48***	.22***	.38***
- Identity (α = .77)	**.60*** **	.46***	.20***	.45***	.20***	.35***
- Self-direction (α = .70)	**.51*** **	.43***	.22***	.44***	.21***	.35***
- Interpersonal (α = .71)	.38***	**.57*** **	.37***	.44***	.25***	.42***
- Empathy (α = .63)	.35***	**.37*** **	.35***	.36***	.27***	.35***
- Intimacy (α = .60)	.31***	**.60*** **	.28***	.38***	.16***	.36***
PDS-ICD-11 (*n* = 1,334)						
- Total (α = .77)	**.54*** **	.45***	.25***	.48***	.21***	.33***
PiCD (*n* = 2,251)						
- Negative affectivity (α = .85)	**.71*** **	.35***	.20***	.43***	.27***	.31***
- Detachment (α = .85)	.09***	**.66*** **	.11***	.15***	.17***	.30***
- Dissociality (α = .77)	.20***	.23***	**.62*** **	.26***	.17***	.36***
- Disinhibition (α = .85)	.30***	.26***	.26***	**.69*** **	-.22***	.25***
- Anankastia (α = .78)	.05*	.03	-.06**	-.39***	**.53*** **	-.00
BPS (*n* = 2.251)						
- Borderline Pattern (α = .87)	**.61*** **	.44***	.27***	.50***	.18***	.34***
- Affective instability (α = .77)	**.58*** **	.37***	.27***	.44***	.19***	.33***
- Maladaptive self-functioning (α = .69)	**.53*** **	.42***	.19***	.42***	.17***	.30***
- Maladaptive interpersonal functi. (α = .45)	**.49*** **	.33***	.23***	.39***	.14***	.24***
- Maladaptive regulation strategies (α = .60)	**.47*** **	.37***	.25***	.46***	.11***	.33***

*Note. * p < .05; ** p < .01; *** p < .001; NA = Negative affectivity; DET = Detachment; ANT = Antagonism; DIS = Disinhibition; ANA = Anankastia; PSY = Psychoticism; the strongest correlation coefficient of each row is in bold.*

Concurrent Validity

Regarding the ability of PID5BF+M scores to discriminate between individuals who self-reported having a psychiatric diagnosis and those who did not, the results were promising (see Table 6). Participants with a self-reported psychiatric

diagnosis tended to have higher scores across all facets and factors of the PID5BF+M. However, moderate differences ($g \geq |.50|$) were observed only in two factors (Negative Affectivity and Disinhibition) and two facets (anxiousness and emotional lability). It is important to note that the group self-reporting a psychiatric diagnosis may vary in specific symptoms and disorders, suggesting that the observed differences in traits do not represent a specific psychopathological profile. When considering smaller effect sizes ($g \geq |0.30|$), four factors displayed significant differences, excluding antagonism ($g = |.23|$) and anankastia ($g = |.21|$). Among the facets, 9 out of 18 (i.e., 50%) exhibited differences with magnitudes of $g \geq |0.30|$. These results partially confirm our hypothesis (H3).

Table 6 - *Comparisons of the PID5BF+M Between Participants With and Without Psychiatric Diagnosis*

Factor / - Facet	Without psychiatric diagnosis (n = 3,251)		With psychiatric diagnosis (n = 1,164)		Differences	
	M	SD	M	SD	Welch's t	Hedge's g
Negative affectivity	7.39	3.78	10.01	3.79	-20.18***	**-.69**
- Anxiousness	3.50	1.86	4.46	1.69	-16.17***	**-.53**
- Emotional lability	2.54	1.72	3.60	1.82	-17.35***	**-.61**
- Separation insecurity	1.36	1.45	1.95	1.62	-10.98***	-.39
Detachment	3.90	3.35	5.27	3.63	-11.22***	-.40
- Anhedonia	1.57	1.59	2.24	1.74	-11.45***	-.41
- Intimacy avoidance	0.82	1.37	1.05	1.58	-4.47***	-.16
- Withdrawal	1.51	1.47	1.98	1.54	-8.91***	-.31
Antagonism	2.78	2.86	3.47	3.15	-6.52***	-.23
- Deceitfulness	1.18	1.34	1.46	1.48	-5.64***	-.20
- Grandiosity	0.75	1.12	0.99	1.32	-5.58***	-.21
- Manipulativeness	0.85	1.26	1.01	1.38	-3.59***	-.13
Disinhibition	4.88	3.32	6.59	3.76	-13.75***	**-.50**
- Distractibility	2.44	1.79	3.08	1.88	-10.08***	-.35
- Impulsivity	1.47	1.48	2.21	1.72	-13.06***	-.48
- Irresponsibility	0.97	1.24	1.31	1.46	-6.97***	-.26
Anankastia	6.62	4.16	7.53	4.37	-6.14***	-.21
- Orderliness	1.65	1.63	1.97	1.79	-5.28***	-.19
- Perfectionism	2.40	1.77	2.64	1.84	-3.95***	-.14
- Rigidity	2.57	1.62	2.92	1.71	-5.97***	-.21
Psychoticism	4.21	3.50	5.50	3.67	-10.43***	-.36
- Eccentricity	1.39	1.60	1.88	1.78	-8.4***	-.30
- Perceptual dysregulation	0.67	1.20	0.84	1.30	-3.84***	-.14
- Unusual beliefs and experiences	2.15	1.68	2.78	1.74	-10.66***	-.37

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; *differences with medium effect sizes are in bold.*

Normative Data

To establish normative parameters for interpreting PID5BF+M scores based on a large sample of Brazilians, the impact of sociodemographic variables was examined. Given the substantial sample size, the statistics showed significant p-values ($p < .05$); however, effect sizes were also considered to assess the practical relevance of specific standards for distinct groups. Regarding age, weak-magnitude associations were observed, ranging from r = -.05 (Anankastia) to r = -.21 (Negative Affectivity). Similar weak associations were found for educational level (from r = -.02 for Anankastia to r = -.16 for Psychoticism) and socio-

economic status (from *r* = .00 for Anankastia to *r* = -.14 for Detachment). For gender, the differences between groups were also of low magnitude, with Hedge's *g* coefficients ranging from -.01 (Disinhibition) to .38 (Antagonism). Lastly, the analysis of the participants' region of residence across Brazil's five macropolitical regions revealed no need for norm differentiation based on this criterion, as eta squared values ranged from .000 (for Negative Affectivity, Detachment, and Anankastia) to .003 (for Psychoticism). Normative data were developed using the general sample, excluding participants who reported having a psychiatric diagnosis. This sample comprised 3,251 individuals with the following characteristics: age ranged from 10 to 83 years (*M* = 33.31, *SD* = 12.53); gender: 916 males (28.2%), 2,323 females (71.5%), and 12 (0.4%) other; race/ethnicity: 1,913 White (58.8%), 249 Black (7.7%), 77 Asian (2.4%), 978 Brown (30.1%), 12 Indigenous (0.4%), and 22 (0.7%) other; regional representation: 60 (1.8%) North, 255 (7.8%) Northeast, 1,597 (49.1%) Midwest, 806 (24.8%) Southeast, 323 (9.9%) South, and 210 (6.5%) missing data; educational levels: 61 (1.9%) low, 1,080 (33.2%) medium, and 2,110 (64.9%) high; and economic levels: 672 (20.7%) low, 1,698 (52.2%) medium, and 881 (27.1%) high. Table 6 depicts the score distribution among percentiles for the PID5BF+M scales. Researchers and clinicians interested in estimating z-scores or T-scores can utilize the mean and standard deviation of the normative data displayed at the bottom of Table 7.

Table 7 - *Brazilian Normative Data of the PID5BF+M (n = 3,251)*

Percentile	Negative affectivity	Anxiousness	Emotional lability	Separation insecurity	Detachment	Anhedonia	Intimacy avoidance	Withdrawal	Antagonism	Deceitfulness	Grandiosity	Manipulativeness	Disinhibition	Distractibility	Impulsivity	Irresponsibility	Anankastia	Orderliness	Perfectionism	Rigidity	Psychoticism	Eccentricity	Perceptual dysregulation	Unusual beliefs and experiences
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
15	3	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	1	1	0	0	0
20	4	2	1	0	1	0	0	0	0	0	0	0	2	1	0	0	3	0	1	1	1	0	0	0
25	5	2	1	0	1	0	0	0	0	0	0	0	2	1	0	0	3	0	1	1	1	0	0	1
30	5	2	1	0	2	0	0	0	1	0	0	0	3	1	0	0	4	0	1	2	2	0	0	1
35	6	3	2	0	2	0	0	1	1	0	0	0	3	2	0	0	4	1	1	2	2	0	0	1
40	6	3	2	1	2	1	0	1	1	0	0	0	4	2	1	0	5	1	2	2	3	0	0	2
45	7	3	2	1	3	1	0	1	2	1	0	0	4	2	1	0	6	1	2	2	3	1	0	2
50	7	4	2	1	3	1	0	1	2	1	0	0	4	2	1	1	6	1	2	2	3	1	0	2
55	8	4	3	1	4	2	0	2	2	1	0	0	5	2	1	1	7	2	2	3	4	1	0	2
60	8	4	3	1	4	2	0	2	3	1	1	1	5	3	2	1	7	2	3	3	4	1	0	2
65	9	4	3	2	5	2	1	2	3	1	1	1	6	3	2	1	8	2	3	3	5	2	0	3
70	9	5	3	2	5	2	1	2	4	2	1	1	6	3	2	1	9	2	3	3	6	2	1	3
75	10	5	4	2	6	3	1	2	4	2	1	1	7	4	2	2	9	3	4	4	6	2	1	3
80	11	6	4	3	7	3	2	3	5	2	2	2	8	4	3	2	10	3	4	4	7	3	1	4
85	11	6	5	3	7	3	2	3	6	3	2	2	8	5	3	2	11	3	4	4	8	3	2	4
90	13	6	5	3	8	4	3	4	7	3	2	3	9	5	4	3	13	4	5	5	9	4	2	5

Percentile	Negative affectivity	Anxiousness	Emotional lability	Separation insecurity	Detachment	Anhedonia	Intimacy avoidance	Withdrawal	Antagonism	Deceitfulness	Grandiosity	Manipulativeness	Disinhibition	Distractibility	Impulsivity	Irresponsibility	Anankastia	Orderliness	Perfectionism	Rigidity	Psychoticism	Eccentricity	Perceptual dysregulation	Unusual beliefs and experiences
95	14	6	6	4	11	5	4	4	8	4	3	4	11	6	4	3	14	5	6	6	11	5	3	5
99	17	6	6	6	14	6	6	6	12	5	4	5	14	6	6	5	17	6	6	6	14	6	5	6
M	7.39	3.50	2.54	1.36	3.90	1.57	0.82	1.51	2.78	1.18	0.75	0.85	4.88	2.44	1.47	0.97	6.62	1.65	2.40	2.57	4.21	1.39	0.67	2.15
SD	3.78	1.86	1.72	1.45	3.35	1.59	1.37	1.47	2.86	1.34	1.12	1.26	3.32	1.79	1.48	1.24	4.16	1.63	1.77	1.62	3.50	1.60	1.20	1.68

The normative data presented provide support for the assessment of Brazilian individuals aged 18 to 65 years. Although the dataset included responses from minors (participants under 18 years accounted for 1.2% of the sample) and older adults (participants over 65 years accounted for 1.4% of the sample), these groups are not adequately represented in the present sample. Furthermore, it is emphasized that the assessment of pathological personality traits should be integrated into a systematic evaluation process, including multiple methods and informants. Accordingly, the use of the PID5BF+M should be combined with other assessment techniques to provide converging information and support more accurate and informed decision-making.

Discussion

The aims of this study were to verify evidence of validity based on internal structure and relationships with external variables, as well as to establish norms that would enable the use of PID5BF+M by professionals in Brazilian clinical settings. The results were in line with the three hypotheses developed in this study and provided evidence of validity for the instrument using a large Brazilian sample. These findings allowed the study to advance towards the development of norms for the instrument within the Brazilian population.

We tested the factorial structure of the instrument with six dimensions, considering the psychiatric manuals DSM-5 and ICD-11. The fit indices of the six-factor model were within the parameters established by the method of this study and in line with references in the field (Hair et al., 2005; Hu & Bentler, 1999). Our results follow the same direction as the study by Bach et al. (2020), which recovered six dimensions with a CFI value greater than .95 and RMSEA lower than .06, with the factors loading similarly onto the dimensions. Therefore, we can understand that the structure's stability is independent of the sample used. Hypothesis 1 (structural validity) was tested and confirmed through the six-factor structure of the PID5BF+M, replicating previous findings in international samples (Bach et al., 2020; Facon et al, 2023). This result suggests that the instrument can capture the dimensions of pathological personality traits in both DSM-5 and ICD-11, which strengthens the Brazilian applicability of the model. The internal consistency of the dimensions was mostly within the acceptable range, with only two factors showing values below the expected (Streine, 2003). These results reflect a common limitation of ultra-brief scales, which use few items to measure complex constructs (Freilich et al., 2023). The limited reliability of these facets may influence the diagnostic accuracy when these

traits are involved. Although these facets are just two components in a larger model, practitioners should exercise caution when interpreting scores from these dimensions, especially in clinical settings where critical decisions depend on accurate diagnoses. Regarding higher-order dimensions, scores reliably estimate latent traits.

Hypothesis 2a (convergent validity: personality functioning) was confirmed, revealing that the PID5BF+M scores present significant correlations with measures of PD severity. The PID5BF+M presented strong correlations with the LPFS-BF-2.0 and the PDS-ICD-11, which reinforces the premise of the ICD-11 dimensional model that greater impairment in personality functioning is accompanied by higher levels of pathological personality traits (Bach & First, 2018). Hypothesis H2b (convergent validity: personality traits) was confirmed through the results that revealed positive and statistically significant correlations between the PID5BF+M and PiCD factors. The strongest correlations were observed between the corresponding factors of the two measurement models. For example, the Negative Affectivity dimension in the PID5BF+M and in the PiCD had the highest correlation (r = .71), which indicates a robust empirical and theoretical correspondence between the two instruments. The results suggest that PID5BF+M effectively captures the same dimensions of pathological personality traits as PiCD, reinforcing the convergent validity of PID5BF+M in the context of the dimensional model of PDs proposed by ICD-11. Furthermore, the confirmation of this hypothesis also reinforces the empirical and theoretical coherence between AMPD and ICD-11 PD model, particularly regarding the assessment of pathological traits (Hualparuca-Olivera et al., 2023). Furthermore, hypothesis H2c (convergent validity: borderline pattern) was confirmed given that the strongest correlations observed were between the PID5BF+M's Affective Negativity and Disinhibition factors and the borderline pattern score of the BPS, which confirmed that the PID5BF+M captures the characteristics associated with borderline PD (Gutiérrez et al., 2023).

Hypothesis 3 (concurrent validity) was partially confirmed in the current study. The domains Negative Affectivity, Detachment, Disinhibition, and Psychoticism tended to be higher among participants who self-reported having received a diagnosis of a mental disorder by a psychiatrist compared with those who self-reported having no diagnosis. Although the Anankastia and Antagonism dimensions showed statistically significant differences between the groups, these differences were of low magnitude. Thus, it is hypothesized that these dimensions are more specific and less transversal than the others, expecting differences with high magnitude between individuals with more externalizing or compulsive characteristics.

Limitations and Future Research

The sample for this study was recruited primarily through online platforms such as Facebook and Instagram. This convenience sampling method introduces a selection bias, as the sample may not be entirely representative of the general population. Individuals with regular internet access and familiarity with social media may have different sociodemographic characteristics (e.g., higher education, urban residency) compared to those who do not engage with these platforms. This could lead to underrepresentation of certain groups, such as individuals from lower socioeconomic backgrounds or rural areas, limiting the generalizability of the findings.

Conclusion

The current study has important implications for the field of psychology, especially in Brazil, where there is a growing demand for culturally validated instruments that can be applied in diverse clinical settings. The replicability of the dimensional structure indicates that healthcare professionals can safely use the PID5BF+M to identify and diagnose pathological personality traits in a Brazilian context. However, it should be noted that although the structural model has proven to be stable, the discussion about the practical utility of a dimensional versus cate-

gorical model may represent a barrier for some professionals, even with robust evidence more favorable to dimensional models of psychopathology.

References

Abdolahpur, M. A., Bach, B., Lotfi, M., Hamraz, I., & Amini, M. (2025). Psychometric Properties of the Persian Version of PID5BF + M in Iranian Drug Users. *Personality and Mental Health*, *19*(1), e70005. https://doi.org/10.1002/pmh.70005

American Psychiatric Association (2022). *Diagnostic and Statistical Manual of Mental Disorders*. (5th ed. Text Revision). American Psychiatric Publishing.

American Psychological Association. (2017). *Ethical principles of psychologists and code of conduct.* https://www.apa.org/ethics/code

Bach, B., Brown, T. A., Mulder, R. T., Newton-Howes, G., Simonsen, E., & Sellbom, M. (2021). Development and initial evaluation of the ICD-11 personality disorder severity scale: PDS-ICD-11. *Personality and Mental Health, 15*(3), 223–236. https://doi.org/10.1002/pmh.1510

Bach, B., & First, M. B. (2018). Application of the ICD-11 classification of personality disorders. *BMC Psychiatry 18*, 351. https://doi.org/10.1186/s12888-018-1908-3

Bach, B., Kerber, A., Aluja, A., Bastiaens, T., Keeley, J. W., Claes, L., Fossati, A., Gutierrez, F., Oliveira, S. E. S., Pires, R., Riegel, K. D., Rolland, J. P., Roskam, I., Sellbom, M., Somma, A., Spanemberg, L., Strus, W., Thimm, J. C., Wright, A. G. C., & Zimmermann, J. (2020). International Assessment of DSM-5 and ICD-11 Personality Disorder Traits: Toward a Common Nosology in DSM-5.1. *Psychopathology, 53*(3-4), 179–188. https://doi.org/10.1159/000507589

Bach, B., Sellbom, M., Skjernov, M., & Simonsen, E. (2018). ICD-11 and DSM-5 personality trait domains capture categorical personality disorders: Finding a common ground. *Australian & New Zealand Journal of Psychiatry, 52*(5), 425–434. https://doi.org/10.1177/0004867417727867

Ben-Shachar MS, Lüdecke D, Makowski D (2020). effectsize: Estimation of Effect Size Indices and Standardized Parameters. *Journal of Open Source Software, 5*(56), 2815. https://doi.org/10.21105/joss.02815

Bernaards, C. A., & Jennrich, R. I. (2005). Gradient Projection Algorithms and Software for Arbitrary Rotation Criteria in Factor Analysis. *Educational and Psychological Measurement, 65*(5), 676–696. https://doi.org/10.1177/0013164404272507

Clarkin, J. F., Caligor, E., & Sowislo, J. F. (2020). An Object Relations Model Perspective on the Alternative Model for Personality Disorders (DSM-5). *Psychopathology, 53*(3-4), 141–148. https://doi.org/10.1159/000508353

De Clercq, B., De Fruyt, F., De Bolle, M., Van Hiel, A., Markon, K. E., & Krueger, R. F. (2014). The hierarchical structure and construct validity of the PID5 trait measure in adolescence. *Journal of Personality, 82*(2), 158–169. https://doi.org/10.1111/jopy.12038

d'Huart, D., Seker, S., Bürgin, D., Birkhölzer, M., Boonmann, C., Schmid, M., & Schmeck, K. (2023). The stability of personality disorders and personality disorder criteria: A systematic review and meta-analysis. *Clinical Psychology Review, 102*, 102284. https://doi.org/10.1016/j.cpr.2023.102284

Ebert, C., Oser, T., Sterner, P., Zimmermann, J., Gensichen, J., von Schrottenberg, V., & POKAL-Group* (2025). Maladaptive Personality Traits in Primary Care: Validation of the German Modified Brief Personality Inventory for DSM-5 (PID5BF + M). *Assessment*, 10731911251357462. https://doi.org/10.1177/10731911251357462

Facon, M. F., Dierckx, E., van Alphen, S. P., & Rossi, G. (2023). Integration of the DSM-5 and ICD-11 maladaptive traits in older adults: Construct validity of the PID-5-BF+M. *Tijdschrift voor Gerontologie en Geriatrie*, *54*(1).

Freilich, C. D., Krueger, R. F., Hobbs, K. A., Hopwood, C. J., & Zimmermann, J. (2023). The DSM-5 maladaptive trait model for personality disorders. In R. F. Krueger & P. H. Blaney (Eds.), *Oxford textbook of psychopathology* (4th ed.) (pp. 604–627). Oxford University Press.

García, L. F., Aluja, A., Urieta, P., & Gutierrez, F. (2022). High convergent validity among the five-factor model, PID-5-SF, and PiCD. *Personality disorders, 13*(2), 119–132. https://doi.org/10.1037/per0000486

Gutiérrez, F., Aluja, A., Ruiz Rodríguez, J., Peri, J. M., Gárriz, M., Garcia, L. F., Sorrel, M. A., Sureda, B., Vall, G., Ferrer, M., & Calvo, N. (2023). Borderline, where are you? A psychometric approach to the personality domains in the International Classification of Diseases, 11th Revision (ICD-11*). Personality Disorders: Theory, Research, and Treatment, 14*(3), 355–359. https://doi.org/10.1037/per0000592

Hopwood, C. J., & Bleidorn, W. (2018). Stability and change in personality and personality disorders. *Current opinion in psychology, 21*, 6–10. https://doi.org/10.1016/j.copsyc.2017.08.034

Hopwood, C. J., Wright, A. G., Krueger, R. F., Schade, N., Markon, K. E., & Morey, L. C. (2013). DSM-5 pathological personality traits and the Personality Assessment Inventory. *Assessment, 20*(3), 269–285. https://doi.org/10.1177/1073191113486286

Hualparuca-Olivera, L., Calle-Arancibia, M., Caycho-Rodríguez, T., & Bach, B. (2024). Self-reported ICD-11 personality disorder severity in Peruvian adolescents: Structure, validity, and tentative cutoffs. *Journal of Personality Disorders, 38*(4), 401–413. https://doi.org/10.1521/pedi_2023_38_499

Hualparuca-Olivera, L., Caycho-Rodríguez, T., Torales, J., & Ramos-Campos, D. (2023). Convergence between the dimensional PD models of ICD-11 and DSM-5: a meta-analytic approach. *Frontiers in Psychiatry, 14*, 1325583. https://doi.org/10.3389/fpsyt.2023.1325583

Huprich S. K. (2020). Personality Disorders in the ICD-11: Opportunities and Challenges for Advancing the Diagnosis of Personality Pathology. *Current psychiatry reports, 22*(8), 40. https://doi.org/10.1007/s11920-020-01161-4

Kerber, A., Schultze, M., Müller, S., Rühling, R. M., Wright, A. G. C., Spitzer, C., Krueger, R. F., Knaevelsrud, C., & Zimmermann, J. (2022). Development of a Short and ICD-11 Compatible Measure for DSM-5 Maladaptive Personality Traits Using Ant Colony Optimization Algorithms. *Assessment, 29*(3), 467–487. https://doi.org/10.1177/1073191120971848

Kim, Y. R., Tyrer, P., & Hwang, S. T. (2021). Personality Assessment Questionnaire for ICD11 personality trait domains: Development and testing. *Personality and Mental Health, 15*(1), 58–71. https://doi.org/10.1002/pmh.1493

Komasi, S., & Bach, B. (2025). A Meta-Analysis of the Psychometric Properties of the ICD-11 Compatible Personality Inventory for DSM-5-Brief Form Plus, Modified (PID5BF+M). *Scandinavian Journal of Psychology*, *66*(4), 482–492. https://doi.org/10.1111/sjop.13100

Komasi, S., Kerber, A., & Hopwood, C. J. (2025). Validation of the Persian Version of the ICD-11 Compatible Personality Inventory for DSM-5- Brief Form Plus, Modified. *Journal of Personality Assessment*, *107*(3), 306–316. https://doi.org/10.1080/00223891.2024.2420872

Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological medicine, 42*(9), 1879–1890. https://doi.org/10.1017/S0033291711002674

Lugo, V., de Oliveira, S. E. S., Hessel, C. R., Monteiro, R. T., Pasche, N. L., Pavan, G., ... & Spanemberg, L. (2019). Evaluation of DSM5 and ICD11 personality traits using the Personality Inventory for DSM5 (PID5) in a Brazilian sample of psychiatric inpatients. *Personality and Mental Health, 13*(1), 24–39. https://doi.org/10.1002/pmh.1436

Martí Valls, C., Balazadeh, K., & Kajonius, P. (2023). Investigating the overlap and predictive validity between Criterion A and B in the alternative model for personality disorders in DSM-5. *International Journal of Testing, 23*(3), 190–204. https://doi.org/10.1080/15305058.2023.2195661

McCabe, G. A., & Widiger, T. A. (2020). A comprehensive comparison of the ICD-11 and DSM–5 section III personality disorder models. *Psychological Assessment, 32*(1), 72–84. https://doi.org/10.1037/pas0000772

McGrath, J. L., & Reynolds, M. S. (2024). Recognizing and Responding to Patients with Personality Disorders. *Emergency medicine clinics of North America, 42*(1), 125–134. https://doi.org/10.1016/j.emc.2023.06.015

Morey, L. C., & Hopwood, C. J. (2013). Stability and change in personality disorders. *Annual review of clinical psychology, 9*, 499–528. https://doi.org/10.1146/annurev-clinpsy-050212-185637

Mulder R. T. (2021). ICD-11 Personality Disorders: Utility and Implications of the New Model. *Frontiers in psychiatry, 12*, 655548. https://doi.org/10.3389/fpsyt.2021.655548

Newton-Howes G. (2014). The impact of mental state disorder and personality on social functioning in patients engaged in community mental health care. *Australasian Psychiatry, 22*(1), 19–22. https://doi.org/10.1177/1039856213500093

Oliveira, N. P. (2021). *O modelo diagnóstico de transtornos da personalidade da CID-11: Estudos psicométricos.* (Master's Dissertation). Graduate Program in Clinical Psychology and Culture, University of Brasília, Brasília, Federal District.

Oliveira, S. E. S. de, Bandeira, D. R., Primi, R., & Krueger, R. F. (2021). Psychometric properties of the personality inventory for DSM-5 (PID-5) in Brazilian Samples. *Psico-USF*, 26(spe), 109–124. https://doi.org/10.1590/1413-8271202126nesp11

Oliveira, S. E. S. de, & Oliveira, N. P. (2023). Adaptação e propriedades psicométricas da versão brasileira da Borderline Pattern Scale (BPS). *Recital - Revista de Educação, Ciência e Tecnologia de Almenara/MG, 5*(3), 174–196. https://doi.org/10.46636/recital.v5i3.490

Oliveira, S. E. S. de, Oliveira, T. C., Bandeira, D. R., & Krueger, R. F. (2020). Personality Types and Personality Traits in DSM-5: Do They Really Match? *Psicologia: Teoria e Pesquisa, 36*(spe), e36nspe15. https://doi.org/10.1590/0102.3772e36nspe15

Oliveira, S. E. S. de, Zimmermann, J., Krueger, R. F., & Hutsebaut, J. (2023). Brazilian Version of the Level of Personality Functioning Scale-Brief Form 2.0: Evidence of Reliability and Validity. *Psicologia: Teoria e Pesquisa, 39*(spe), e39nspe05. https://doi.org/10.1590/0102.3772e39nspe05.en

Oltmanns J. R., & Widiger T. A. (2018). A self-report measure for the ICD-11 dimensional trait model proposal: The Personality Inventory for ICD-11. *Psychological Assessment, 30*(2), 154–169. https://doi.org/10.1037/pas0000459

Oltmanns, J. R., & Widiger, T. A. (2019). Evaluating the assessment of the ICD-11 personality disorder diagnostic system. *Psychological Assessment, 31*(5), 674–684. https://doi.org/10.1037/pas0000693

Pires, R., Henriques-Calado, J., Sousa Ferreira, A., Bach, B., Paulino, M., Gama Marques, J., Ribeiro Moreira, A., Grácio, J., & Gonçalves, B. (2021). The Utility of ICD-11 and DSM-5 Traits for Differentiating Patients With Personality Disorders From Other Clinical Groups. *Frontiers in psychiatry, 12*, 633882. https://doi.org/10.3389/fpsyt.2021.633882

Pires, R., Henriques-Calado, J., Sousa Ferreira, A., Gama Marques, J., Ribeiro Moreira, A., Barata, B. C., Paulino, M., & Gonçalves, B. (2023). Bridging the ICD11 and the DSM-5 personality disorders classification systems: The role of the PID5BF + M. *Frontiers in psychiatry*, *14*, 1004895. https://doi.org/10.3389/fpsyt.2023.1004895

Revelle, W. (2024). *psych: Procedures for Psychological, Psychometric, and Personality Research*. Northwestern University, Evanston, Illinois. R package version 2.4.6, https://CRAN.R-project.org/package=psych

Riegel, K. D., Ksinan, A. J., & Schlosserova, L. (2021). Psychometric Properties of the Independent 36-Item PID5BF+M for ICD-11 in the Czech-Speaking Community

Sample. *Frontiers in Psychiatry*, *12*, 643270. https://doi.org/10.3389/fpsyt.2021.643270

Rosseel, Y (2012). lavaan: An R Package for Structural Equation Modeling. *Journal of Statistical Software, 48*(2), 1–36. https://doi.org/10.18637/jss.v048.i02

Sellbom, M., Solomon-Krakus, S., Bach, B., & Bagby, R. M. (2020). Validation of Personality Inventory for DSM–5 (PID-5) algorithms to assess ICD-11 personality trait domains in a psychiatric sample. *Psychological Assessment, 32*(1), 40–49. https://psycnet.apa.org/doi/10.1037/pas0000746

Simon, J., Lambrecht, B., & Bach, B. (2023). Cross-walking personality disorder types to ICD-11 trait domains: An overview of current findings. *Frontiers in Psychiatry, 14*, 1175425. https://doi.org/10.3389%2Ffpsyt.2023.1175425

Streiner, D. L. (2003). Starting at the beginning: An introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment*, *80*(1), 99–103. https://doi.org/10.1207/S15327752JPA8001_18

Torgersen, S., Kringlen, E., & Cramer, V. (2001). The prevalence of personality disorders in a community sample. *Archives of General Psychiatry 58*(6), 590–596. https://doi.org/10.1001/archpsyc.58.6.590

Tyrer, P., Mulder, R., Kim, Y. R., & Crawford, M. J. (2019). The development of the ICD-11 classification of personality disorders: An amalgam of science, pragmatism, and politics. *Annual Review of Clinical Psychology, 15*, 481–502. https://doi.org/10.1146/annurev-clinpsy-050718-095736

Tyrer, P., Reed, G. M., & Crawford, M. J. (2015). Classification, assessment, prevalence, and effect of personality disorder. *Lancet*, *385*(9969), 717–726. https://doi.org/10.1016/S0140-6736(14)61995-4

World Health Organization (2019). *ICD-11 Clinical Descriptions and Diagnostic Guidelines for Mental and Behavioural Disorders*. World Health Organization.

World Medical Association. (2013). *World Medical Association Declaration of Helsinki: Ethical principles for medical research involving human subjects. JAMA, 310*(20), 2191–2194. https://doi.org/10.1001/jama.2013.281053

Wu, J., Allman, M., Balzen, K., Hutsebaut, J., & Sharp, C. (2024). First psychometric evaluation of the Level of Personality Functioning Scale—Brief Form 2.0 in adolescents. *Personality Disorders*, *15*(6), 492–503. https://doi.org/10.1037/per0000692

Zimmerman, M., Rothschild, L., & Chelminski, I. (2005). The prevalence of DSM-IV personality disorders in psychiatric outpatients. *American Journal of Psychiatry, 162*(10), 1911–1918. https://doi.org/10.1176/appi.ajp.162.10.1911

Zinchuk, M., Kustov, G., Bach, B., Pashnin, E., Gersamija, A., Yakovlev, A., Voinova, N.,

Popova, S., & Guekht, A. (2023). Evaluation of a 36-item measure of ICD-11 and DSM-5 personality disorder trait domains and facets in Russian inpatients. *Psychological*

Assessment, *35*(5), e22–e30. https://doi.org/10.1037/pas0001223

Minibiografia:

Sérgio Eduardo Silva de Oliveira

Doutor em Psicologia (UFRGS) e Professor no Departamento de Psicologia Clínica e no Programa de Pós-Graduação em Psicologia Clínica e Cultura da Universidade de Brasília (UnB).

Joana Bücker

Doutora em Psiquiatria e Ciências do Comportamento (UFRGS) e Professora no Programa de Pós-Graduação em Ciências Médicas da Universidade do Vale do Taquari (Univates).

Lucas Dannilo Aragão Guimarães

Doutor em Psicologia (USF) e Professor no Departamento de Psicologia da Universidade Estadual do Piauí (UESPI).

André Pereira Gonçalves

Doutor em Psicologia (USF) e Professor no Instituto Multidisciplinar em Saúde (IMS) e no Programa de Pós-Graduação em Psicologia da Saúde da Universidade Federal da Bahia (UFBA).

Robert Frank Krueger

Doutor em Psicologia pela University of Wisconsin – Madison (UW) e Professor no Departamento de Psicologia e no Programa de Pós-Graduação em Psicologia da Universidade de Minnesota (UMN).

Endereço para correspondência

Sérgio Eduardo Silva de Oliveira

Universidade de Brasília

Campus Darcy Ribeiro

Instituto Central de Ciências

Instituto de Psicologia

Asa Norte, 70910-900

Brasília, DF, Brasil

Joana Bücker

Universidade do Vale do Taquari

Programa de Pós-Graduação de Ciências Médicas

Avenida Avelino Tallini, 171

Universitário, 95900-000

Lajeado, RS, Brasil

Lucas Dannilo Aragão Guimarães
Universidade Estadual do Piauí
Rua São Francisco, 1731
Fátima, 64002-150
Teresina, PI, Brasil

André Pereira Gonçalves
Universidade Federal da Bahia
Rua Hormindo Barros, 58 - Quadra 17, Lote 58
Candeias, 45029-094
Vitória da Conquista, BA, Brasil

Robert Frank Krueger
University of Minnesota
N218 Elliott Hall 75
East River Parkway, 55455
Minneapolis, MN, Estados Unidos

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