

Personality Inventory for DSM-V-Brief form (PID-V-BF): Translation and Validation

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Abstract

Background. DSM-5 proposes a new trait model of personality for the diagnosis of personality disorders. This model constitutes five major domains encompassing maladaptive personality traits that are considered pathological ends of the famous five-factor model. Their domains were named antagonism (agreeableness), detachment (extraversion), disinhibition (conscientiousness), negative affectivity (neuroticism), and psychoticism (openness). This inventory used to operationalize this model is called Personality Inventory for DSM-V. This study utilizes the brief form of the inventory with twenty-five items for having a structurally comparable and lexically valid version of this inventory to use with the Pakistani population.

Method. Items of the scale were translated by bilingual experts into the targeted language through standardized procedures and Confirmatory factor analysis was then run on the sample of 300 adults between the ages of 19-64 ($M = 27.36$, $SD = 9.32$).

Results. CFA revealed the satisfactory fit of the model after adding covariance. The obtained value for chi-square was 616.86 ($df = 267$) which indicates adequate fit of the model. RMSEA = .06 also meets the criteria and specifies a good fit for the model. Similarly, fit indices for the model also meet the minimum criteria ($IFI = .91$, $TLI = .90$, $CFI = .91$). Hence, all the five domains of the trait model were confirmed into local culture and depict good reliability coefficients.

Conclusion. It was concluded that the Urdu version of the PID-V was proved to be satisfactory and acceptable for further use in the Pakistani context.

Keywords. Personality inventory for DSM-V, DSM. translation, validation, confirmatory factor analysis.



Introduction

In contemporary accounts, the famous diagnostic system of the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) advanced the diagnosis of personality disorders. In Section III of the DSM-V, it provided an empirically derived pathological personality model which is regarded as the composite model of personality (Anderson, Sellbom, & Salekin, 2018; Al-Dajani, Gralnick, & Bagby, 2016). This system was designed to overcome the deficiencies of the DSM IV axial system which elucidate the phenotypic diversity of personality pathology (Lowmaster, Hartman, Zimmermann, Baldock, & Kurtz, 2020; Morey, Benson, Busch, & Skodol, 2014; Widiger & Trull, 2007). This system bridges the categorical and dimensional models (Al-Dajani et al., 2016). On the one hand, it assesses interpersonal functioning and on the other end, it assesses pathological personality traits (Waugh et al., 2017).

This newly introduced model fundamentally works with maladaptive traits of personality that were broadly categorized into five factors (Krueger, Derringer, Markon, Watson, & Skodol, 2012). These domains/factors were named Antagonism, Detachment, Disinhibition, Negative Affectivity, and Psychoticism (Widiger & Crego, 2019). Experts called this model an equivalence of the five-factor model and labeled it as a dysfunctional alternative to FEM (Griffin & Samuel, 2014; Wright & Simms, 2014). Antagonism is believed to be the low end of the agreeableness of the five-factor model (Gore & Widiger, 2013). Detachment is considered the low end of extraversion (Kotov et al., 2017). Disinhibition is contemplated as the lower end of conscientiousness (Wright et al., 2012). Negative affectivity is believed to be aligned with neuroticism (Heath et al., 2018; Krueger & Markon, 2014). However,

concerning psychoticism, there is disagreement as to whether psychoticism aligns with openness or not (Chmielewski, Bagby, Markon, Ring, & Ryder 2014; Gongora & Solano, 2017; Gore & Widiger, 2013; Watson, Stasik, Ro, & Clark, 2013).

DSM operationalized this model through a self-report instrument that was designed to capture these broader five domains and their relevant traits (Zimmermann, Kerber, Rek, Hopwood, & Krueger, 2019). This instrument is called Personality Inventory for DSM-V (PID-V) which originally contains 220 items with twenty-five facets (Krueger et al., 2012). The original version of the Personality Inventory for DSM-V (PID-V) was too extensive and lengthy which in turn makes it quite demanding and time-consuming to utilize it in diagnostic situations and research milieu (Thimm, Jordan, & Bach, 2016). To overcome this shortcoming, shorter forms of PID-V have also been developed such as 100 item form of this inventory called PID-V-SF and 25 items form called DSM-V-Brief Form that measures personality pathology at the domain level (Krueger Derringer, Markon, Watson, & Skodol, 2013; Maples et al., 2015). This brief form of PID-V has been the subject of current research.

In clinical settings, surveys and questionnaires are widely used to collect information from patients, such as patient's subjective assessments of their current states. Although it may be more convenient to use an existing questionnaire, sometimes a questionnaire that measures the construct of interest may not be readily available, or the published questionnaire may not be available in the language of the targeted respondents. Consequently, investigators may need to create a new questionnaire or translate an existing one (Tsang, Royse, & Terkawi, 2017). The global consensus is that instruments should be tested for their

relevance in new and novel settings and their psychometric properties should also be explored in cultures other than their own (Foxcroft, Roodt, & Abrahams, 2001). This step also proves to be much more cost-effective and time-saving than developing a new scale (Bukhari & Masood, 2020). The PID-V-BF was also developed originally in Western contexts and English. Due to its clinical relevance, many researchers attempt to translate the PID-V-BF into their cultures. Previously, it was translated into Italian, French, and Danish language (Combaluzier, Gouvernet, Menant, & Rezrazi, 2018; Fossati, Somma, Borroni, Markon, & Krueger 2017). The multicultural applicability of the PID-V-BF is confirmed by these studies, which confirm the five domains of the inventory in their respective samples. As personality traits are an important part of clinical evaluation in every culture including ours, it may be helpful to assess both adaptive and maladaptive personality traits because they can work in tandem to fully and completely characterize a person's personality (Lengel & Mullins-Sweatt, 2017). PID-5 could assess the level of this personality impairment and pathological traits in clinical settings (Bach, Markon, Simonsen, & Krueger, 2015). Moreover, it was reported that the alternative personality model operationalized on PID-5 was judged by clinicians as a more beneficial tool than the previous axial approach (Morey, Benson, Busch, & Skodol, 2015) perhaps due to the possibility of unavoidable effects, such as strengthening links to disordered identities. Given the significance of this model for the DSM-V which was operationalized on the PID-V, the present research translates and reports the psychometric properties of PID-V-BF in the Pakistani context. The scale was translated into Urdu because the majority of Pakistanis comprehend it better than any other language spoken in this area. It will also be convenient to use the PID-V-Urdu version in future studies.

Method

Objectives

There were two key objectives for this study:

1. To translate the PID-V-BF into the Urdu language.
2. To establish the psychometric properties of the PID-V-BF (Urdu version).

Assessment Measure

Personality Inventory for DSM-V-BF. The English version of PID-5-BF (Krueger et al., 2012) contains twenty-five items and was published by APA. This inventory measures broad-ranging quintuples of dysfunctional traits of personality consisting of five items each. These domains are classified as Negative Affectivity (e.g., “I worry about almost everything” and measured by 8, 9, 10, 11, 15), Detachment (e.g., I often feel like nothing I do matters and measured by sequential numbers: 4, 13, 14, 16, 18), Antagonism (e.g., It’s no big deal if I hurt other people’s feelings and measured by sequential number: 17, 19, 20, 22, 25), Disinhibition (e.g., People would describe me as reckless and measured by sequential number: 1, 2, 3, 5, 6) and Psychoticism (e.g., I often have thoughts that make sense to me, but that other people say are strange and measured by sequential number: 7, 12, 21, 23, 24). Four-point Likert extending from 0 (very false) to 3 (very true) has been used to measure responses on this inventory. The gross score for the inventory range between 0 and 75 which is the sum of scores on five domains. On the domain level, a total score may vary from 0 to 15. The higher score in each domain suggests dysfunction in that domain and the high score on the overall suggests overall personality dysfunction. Moreover, raw scores on each domain and overall scores were advised to convert into average scores. Reliability values of the PID-5-BF are $\alpha = .78$ (Detachment), $\alpha = .81$ (Negative Affectivity), $\alpha = .74$ (Antagonism), $\alpha = .74$ (Disinhibition), $\alpha = .81$ (Psychoticism) and $\alpha = .78$ for PID-5-BF’s total scores. The inventory is open access and available on the APA’s website.

Phase- I: Translation of PID-5. For the current study, from the source language (English), the PID-V-BF inventory was translated into the Urdu language. To translate the inventory into Urdu

language, standard procedures were followed (see (Brislin, 1970). For this purpose, six bilingual experts (familiar with both Urdu and English) were requested to provide their services. Experts included MPhil (n= 2) and Ph.D. degree holders (n = 2) in psychology and Urdu linguists (n = 2). They were requested to put special focus on the inherent meaning of every item and to ensure that all the items are culturally understandable, appropriate, and relevant. Additionally, they were told to choose simple words that are frequently used in everyday speech rather than complex dictionary words. Each expert carefully adhered to the guidelines and made every effort to provide the most accurate translation possible. Six translations were obtained and were latterly assessed in the committee approach. All the translations were then subjected to a committee approach for translation equivalence and of course for literal equivalence. The committee contains three members and all of them were bilingual. They were presented with the booklet containing all six translations of the inventory and were asked to carefully review and evaluate each translation for the sake of selecting one final translation. They thoroughly check each item in all the six translations and finalized the most appropriate and relevant translation for each item. Along with the items, instructions were also finalized by the members of the committee.

The next step in this regard is the backward translation of the scale that was forward-translated before. For this three bilingual experts were contacted, and they were asked to translate the Urdu version into the English language. Two of the experts have Ph.D. and MPhil degrees in psychology and one has a Master's degree in English. These experts were requested to translate the items into English by putting a special focus on maintaining the real meaning of each item and by maintaining semantic equivalence or maximization of content similarity with the Urdu version. After getting back the backward translations of all the items, again all the items were subjected to a committee approach to assess them. Members of the committee were the same that were approached for the first committee approach. For the committee

approach, all three translations were arranged in a booklet for each evaluator to run the evaluation process more smoothly. Members were given instructions to assess the resemblance between the original inventory and the translated inventory and to choose the items that most closely matched the original inventory in terms of semantics.

Phase II: Structural Validation of PID-5-BF. In this phase, the scale that was translated in the previous stage was validated in the Pakistani context. The objective of this stage was basically to confirm the factorial structure or construct validity of translated inventory to ensure its psychometric properties.

Sample

The sample for the present study comprised 300 adult participants. They were approached through a convenient sampling technique and were selected from different areas of Pakistan. The sample contains an equal representation of both genders (Male =150 and Female = 150). The age range of the sample was 19-64 ($M = 27.36$, $SD = 9.32$). Moreover, participants of the present study possess different levels of education from MPhil\PhD ($n = 41$) to graduation 14\16 years ($n = 107$) and from metric\intermediate ($n = 73$) to middle education ($n = 9$). Additionally, participants also represent different social strata or socio-economic classes of Pakistan i.e., from the lower class ($n = 112$), the middle class ($n = 117$), and the upper class ($n = 34$). It was ensured that the sample should be representative and illustrate all the sections of the society. Lastly, participants represent different sects of Islam i.e., *Ahle Sunnat* ($n = 77$), *Ahle Sunnat Deoband* ($n = 75$), *Ahle Sunnat Bareilvi* ($n = 70$), *Ahle Hadith* ($n = 39$), and *Ahle Tasheeh* ($n = 32$).

Procedure

For the current study, approval was obtained and an adult sample was approached for participation. A convenient sampling approach was used for data collection. The objectives and purpose of the study were explained to the participants, and they were assured that their responses would only be used for research purposes. Moreover, they were also told that their participation was entirely

voluntary, and did not contain any associated cost or benefit. They were also informed about their right to withdraw at any time. After they show willingness to participate there were asked to sign informed consent and were instructed to thoroughly read and follow the instructions before filling out the survey. After they fill out the questionnaire, they

were thanked for their participation. The participants found the items pretty intriguing because they gave them a new perspective on how to think about themselves, and it took them an average of 15 minutes to complete the questionnaire.

Results

Table 1
Demographic Attributes of the Study Participants (N= 300)

Demographic variables	<i>f</i>	%
Gender		
Men	150	50.0
Women	150	50.0
Age in year		
19-64	300	100
Education		
Metric	22	7.5
Intermediate	61	20.7
Graduate	106	35.9
Postgraduate	106	35.9
Monthly income		
Low (10,000-40,000)	107	39.3
Middle (41,000-80,000)	133	48.9
High (81,000 and above)	32	11.8
Sect		
<i>Ahle Sunnat</i>	77	25.8
<i>Ahle Sunnat Deoband</i>	75	25.1
<i>Ahle Sunnat Barelvi</i>	70	23.4
<i>Ahle Hadith</i>	39	13.0
<i>Ahle Tasheeh</i>	32	10.7
Others	6	2.0

The demographic characteristics of the sample are displayed in Table 1 which reveals that the sample is very diverse and composed of people from different strata of society, allowing the scale to be validated on a diverse population and provide a better picture.

Confirmatory Factor Analysis

Following the data gathering on the Urdu adaptation of PID-5-BF, relevant analytical methods such as CFA, reliability analysis, inter subscale correlation, and other descriptive analyses

were used to establish the psychometric properties of the inventory in the local culture. In Amos-21, CFA was performed using the maximum likelihood method. For the evaluation of the model, RMSEA and incremental fit indices (Hooper et al., 2008) were used. RMSEA represents the model fit to the population parameter (Byrne, 2013). According to the literature values of .06 and .08 represent good fit (Awang, 2012) represent mediocre model fit. However, this index is sensitive to model parameters due to which it is considered the most important fit index (Brown, 2006; Diamantopoulos & Siguaw, 2000).

CFI, TLI, and IFI are collectively called incremental fit indexes (Hooper, Coughlan, &

Mullen, 2008). These indices make the comparison of chi-square with the baseline model (McDonald & Ho, 2002). For these indexes, a value of .09 or greater reflects a good model fit (Schreiber, Nora, Stage, Barlow, & King, 2006). In the current study, it was observed that the model shows poor fit may be either because of response on items can be affected by the response on another item or because of item positioning or item content. So, it was decided to add covariance between errors terms in the model for the sake of attaining model fit. It was kept in mind to add the minimum number of covariance's as possible. Table 1 represents the model fit of this modified model.

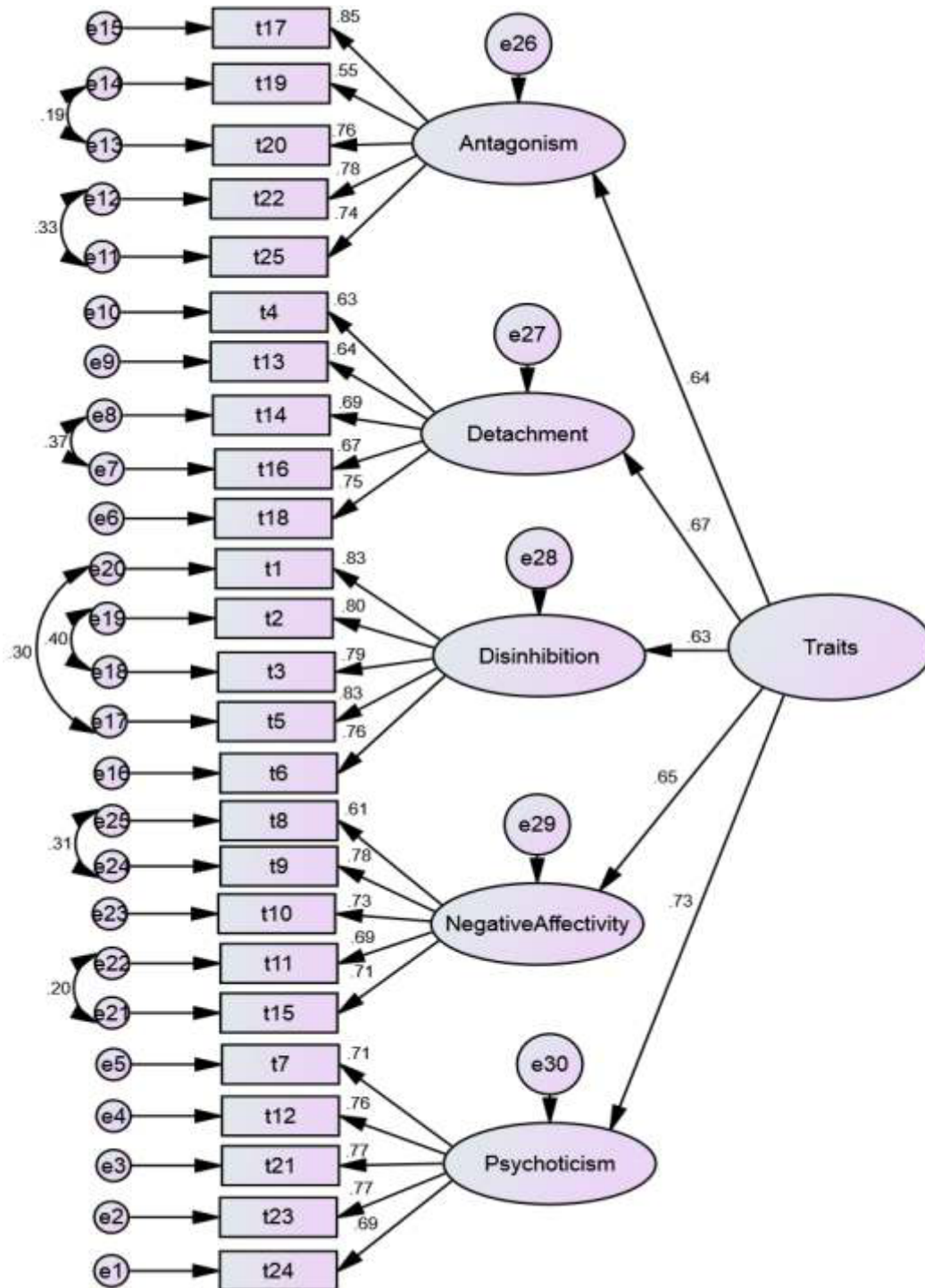
Table 2

Model Fit Indices for PID-5-BF (Urdu Version) With Higher-order Factor Structure (N = 300)

Model	χ^2 (pdf)	χ^2/df	IFI	TLI	CFI	RMSEA
Mo	763.91 (274)	2.78	.87	.86	.87	.07
M1	616.86 (267)	2.31	.91	.90	.91	.06

Note. χ^2 = chi-square; χ^2/df = relative chi-square; IFI = incremental fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation; Mo = default model of CFA for PID-5-BF with five factors; M1 = Mo after adding covariance.

Table 2 shows the CFA of the PID-5-BF Scale (Urdu version). Values of CMIN/df and RMSEA reflect the acceptable fit of the model (see Schreiber et al., 2006). Baseline indices for this model are also adequate. Covariance between residuals significantly improves the model M1 (see Kline, 2015).



Chi Sq (df) = 616.86, CFI .90, IFI .90 , RMSEA = .06

Table 3*Factor Loadings for PID-5-BF (Urdu Version) With Higher-order Factor Structure (N = 300)*

Item No.	NA	Item No.	DE	Item No.	A	Item No.	DI	Item No.	P
8	.61	4	.63	17	.85	1	.83	7	.71
9	.78	13	.64	19	.55	2	.80	12	.76
10	.73	14	.69	20	.76	3	.79	21	.77
11	.69	16	.67	22	.78	5	.83	23	.77
15	.71	18	.75	25	.74	6	.76	24	.69

Note. NA = Negative Affectivity; DE = Detachment; A = Antagonism; DI = Disinhibition; P = Psychoticism

Table 3 represents the factor loading of the five dimensions of the higher-order factor structure of the PID-5-BF (Urdu version). All the factor loadings are in the acceptable range i.e., $\geq .30$ ($\lambda = .55-.85$), and load strongly and

appropriately on the related factor. Figure 1 shows the Confirmatory Factor Analysis of the PID-5-BF (Urdu version). After confirming the factorial structure, the psychometric of the PID-5-BF was explored.

Table 4*Alpha Coefficients, Descriptive Statistics, and Average Inter-subscale Correlations for PID-5 (N = 300)*

Subscales	No of items	α	$M(S.D)$	Skewness	Kurtosis	AIC
Antagonism	5	.84	4.17(3.82)	.83	.38	.50
Detachment	5	.81	6.38(3.73)	.23	-.17	.36
Disinhibition	5	.91	5.85. (4.38)	.37	-.72	.53
Negative Affectivity	5	.83	8.03(4.00)	-.03	-.60	.67
Psychoticism	5	.87	6.74(4.21)	.11	-.70	.57

Note. AIC = average interitem correlation

Table 4 represents the psychometric properties of the PID-5-BF (Urdu version). Alpha coefficients of all the subscales reflect acceptable values. Similarly, the average inter-item correlation for all the subscales were in an acceptable range and as well as the values of skewness and kurtosis.

Discussion

In the clinical context, clinicians must be able to distinguish or recognize potentially dysfunctional personality disturbance. The recently created PID-V-BF is one of the instruments that offer a valuable screening of psychopathology and could be used to help clinicians to detect maladaptive personality patterns (Porcerelli,

Hopwood, & Jones, 2019). The present research aimed to translate and confirm the factorial structure of the Personality Inventory for DSM-5-BF in Pakistan. A trait-model replication in a new setting was hypothesized and to our knowledge, this study is the first to attempt to provide information on the psychometric characteristics of the PID5-BF in our culture. The translation was carried out by thoroughly following the guidelines available in the literature (see Brislin, 1970; Gudmundsson, 2009). To confirm the five dimensions of the maladaptive personality traits among adults and to verify the construct validity of the PID-5-BF, it underwent confirmatory factor analysis using AMOS 24 after being translated and evaluated by professionals. Results showed that after a minor modification—adding covariance (which was added because of the possibility of the

items' similarity) between a few error terms on the same factor—the five-factor structure of the PID-V-BF sufficiently captures maladaptive personality traits in adults. These results indicate that five-factor model is applicable to our culture as well.

Results further revealed that items load onto their relevant domains with sufficient factor loadings (i.e., $> .3$ see Bian, 2011). Items related to attention-seeking, canny, untruthfulness, and grandeur was loaded onto a factor named antagonism. Factor two, titled detachment, incorporated items representing abandonment, anhedonia, and emotional numbing. Similarly, disinhibition (factor III), included items that demonstrate impulsivity and irresponsibility. Likewise, in factor IV, loaded items represent the apprehension and depression that are indicators of negative affectivity. Lastly, factor V constitutes items representing peculiarity, odd and bizarre beliefs and is the depiction of the psychoticism domain. Previous studies have also replicated this five-structure model in other countries as well (Anderson et al., 2018); Bach, Maples-Keller, Bo, & Simonsen, 2016; Fossati et al., 2017). For this study, Cronbach's alpha obtained for each domain varied from .81 to .87 and was above the cutoff of .07 which pointed to the internal consistency of this measure. Reliability analyses reveal similar results with the previous studies (Anderson et al., 2018; Korycinski, 2017; Pires, Ferreira, Guedes, Goncalves, & Henriques-Calado, 2018). Moreover, the correlation between all items and overall domain scores ($r = 0.36-0.67$) was satisfactory. In general, the PID-5-BF maintained acceptable psychometric qualities. This study added to the cross-cultural applicability of this inventory potentially at least in its Urdu translation. The findings of the current study established that the trait model of DSM is culturally informed and is sufficient in catching maladaptive personality traits in the Pakistani sample on a domain level. The reason for validating this scale was that the categorical approach to diagnosis has well-documented flaws (Samuel, South, & Griffin, 2015). It was also observed that trait approach captures personality disorders in a better way than

categorical approach (Newton-Howes, Clark, & Chanen, 2015). As a result, it is crucial for Pakistani clinicians to adopt this new approach, and recent validation will support this effort.

Implications

PID-5-BF helps clinicians and researchers to identify personality pathology or at least to pinpoint the dimensions of personality that may put any individual at risk for certain problems. Above findings suggest that we can use the well-known PID-5-BF (Urdu version) in the Pakistani context for the exploration of personality pathology or maladaptive personality traits as it shows satisfactory construct validity and reliability. We suggest that local clinics and researchers use the Urdu version of PID-5-BF for their clients and participants as it is easier for their subjects to comprehend the statements in their language than foreign language.

Limitations and Suggestions

There are some noteworthy limitations in the study that should be kept in mind concerning the interpretation of the findings. Firstly, self-report instruments were used in the study which may lead to biased results. For further studies, it is recommended that informants' reports should be utilized along with other measures. Secondly, this study was conducted on community sample, future validations should be conducted on diverse samples; specifically, further studies should include clinical samples constituted patients with personality disorders.

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Conflict of interest

The authors have no conflict of interests to declare.

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Availability of data and materials

Data and related materials are available from the corresponding author on reasonable request.

Ethical approval

This study was approved by the Ethical committee of National Institute of Psychology, Islamabad, Pakistan.

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