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# The Spanish version of the Level of Personality Functioning Scale – Brief Form 2.0 (LPFS-BF 2.0): Psychometric evaluation in adolescents who have suffered from parental abuse and neglect and a community sample

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**Abstract**
Given shifts to dimensional models of personality pathology and a growing consensus that personality disorder (PD) often onsets during adolescence, there is a need for validated measures of PD in adolescents. Level of Personality Functioning (LPF) is particularly relevant for the identification of emerging personality dysfunction in adolescents given its ability to capture developmental discontinuity as metacognitive capacities in self- and interpersonal-functioning emerge. However, no studies as of yet have validated a measure of LPF in a sample of Spanish-speaking adolescents. In addition, no study has evaluated whether LPF associates with status as victim of parental neglect vs. community adolescents. A total of 570 Spanish-speaking adolescents between the ages of 11 and 18 ($n$ = 168 with a history of parental neglect, $n$ = 402 from a community sample) completed the briefest form of LPF, the LPFS-BF 2.0. Results from the confirmatory factor analysis revealed adequate fit of a unidimensional model, and invariance analyses suggested measurement invariance across gender and age (early versus late adolescents). Internal consistency was adequate, and convergent validity was supported through negative correlations of the LPFS-BF 2.0 with empathy and reflective function, and positive associations with alexithymia. Contrary to expectations, total scores on the LPFS-BF 2.0 did not distinguish adolescents with a history of parental neglect and adolescents from a community sample. Overall, results support the Spanish translation of the LPFS-BF 2.0 as a valid measure for use in adolescents.

**Keywords:** personality functioning, assessment of personality disorder in youth, level of personality functioning, dimensional assessment of personality

## Introduction

The Alternative Model for Personality Disorders (AMPD) was introduced in the DSM-5 following significant shortcomings of the categorical nosology for personality disorders (PDs; (1,2)). The AMPD is a hybrid dimensional-categorical framework for the conceptualization of PDs, founded on clinical theory and empirical research (3–5). Similarly, the ICD-11 shifted to a dimensional framework, with only one PD from the ICD-10 retained, namely, borderline, as a specifier (6,7). The entry criterion of the AMPD (Criterion A) requires clinicians to assess an individual's overall level of personality functioning (LPF; (3)). Following the assessment of LPF, the clinician then assesses Criterion B which comprises five descriptive trait domains: negative affectivity, disinhibition, detachment, psychoticism, and antagonism (8). LPF is considered a unidimensional severity criterion, reflecting the core features shared among all personality disorders, that is, maladaptive self- and interpersonal-functioning (3,4).

Recent research has shown that, when compared to the sum of categorical PD criterion, the dimensional assessment of general PD severity is a more robust predictor of psychosocial impairment (9). Moreover, the dimensional conceptualization of PD severity has been shown to predict future impairment (10), provide important information for the guidance of treatment intensity (11), and increment general psychiatric severity (12,13), and general disability in adults (9), and adolescents (14). Yet, a majority of research thus far has focused on Criterion B of the AMPD (15) highlighting the need for more research examining LPF and resulting in the recent development of measures to assess LPF (4). At present, several self-report measures have been developed to assess LPF (i.e., LPFS-SR (16); LPFS-BF (17); LPFS-BF 2.0 (18)), along with two

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interview-based assessments (SCID-AMPD (19); STiP-5.1 (20)).

Despite this increase in recent work examining LPF and developing measures for its assessment, a majority of this work is focused on adult samples (21). However, adolescence marks a sensitive developmental period for the onset of personality disorder (22–25). The assessment of LPF in adolescents is particularly important given its unique ability to capture developmental discontinuity (26). In other words, it has been argued that dispositional traits (i.e., as assessed through Criterion B) can be identified during childhood, but it is not until adolescence that the development of adult-like self functioning emerges (i.e., facets constituting LPF (26)). Therefore, LPF holds the capacity to distinguish among adolescents with PDs versus those without, while reliance on dispositional maladaptive traits for this distinction might not be adequate (27). As such, the accurate assessment and conceptualization of LPF in adolescents is a necessary first step for informing methods of prevention and early intervention, holding the potential to prevent the development of more chronic personality pathology (26,28). This is especially timely given increasing recognition of the onset of PD in adolescence by scholars and diagnostic classification systems (1,7,23,24).

The Level of Personality Functioning Scale-Brief Form 2.0 (LPFS-BF 2.0; 18) is a particularly desirable instrument as it is currently the shortest of LPF measures, and has demonstrated strong psychometric properties thus far (29–33). To our knowledge, only two studies have specifically validated the Spanish version of the LPFS-BF 2.0 in samples of Spanish-speaking adults (30,34). One of these studies found adequate psychometric properties for the LPFS-BF 2.0, however, this was after removing four items that were considered to have underperforming standardized residuals (34). After this refinement, evidence for a bifactor structure of LPFS-BF 2.0 was found, supporting the use of both the total score and the subscales of the LPFS-BF 2.0 (34). Another study by Le Corff and colleagues (30) found support for all items of the LPFS-BF 2.0 in a Spanish-speaking sample, and found adequate fit for a two-dimensional factor structure (self and interpersonal domains) using ESEM, with the two factors demonstrating significant, strong correlations with each other. However, this measure has not yet been validated in a sample of Spanish-speaking adolescents. Against this background, our first aim was to evaluate the psychometric properties of the LPFS-BF 2.0 in Spanish speaking adolescents in the Basque Country in Spain. Specifically, we aimed to examine the factor structure, measurement invariance across age and gender, internal consistency, and convergent validity. Based on prior psychometric work in Spanish-speaking adults, we expected adequate psychometric properties of the LPFS-BF 2.0 to be demonstrated in adolescents (30,34). While these two prior studies found mixed results regarding factor structure, both found strong correlations between subdomains (30,34), ultimately suggesting a unidimensional factor structure (4). Moreover, in the one study that has examined the LPFS-BF 2.0 in a sample of English-speaking adolescents, strong support was found for the fit of a unidimensional factor structure (35). This finding is in line with the notion that LPF is a unidimensional construct (3), in which self- and interpersonal functioning are inextricably linked. Considering this background, we predicted that the LPFS-BF 2.0 would demonstrate a unidimensional factor structure, as well as strong internal consistency (29,30,36–38). Further, we examined measure invariance across gender and age. Based on prior research examining measurement invariance across gender using a Spanish translation of the LPFS-BF-2.0 in adults (30), we expected invariance across gender in our sample of adolescents. We had no apriori expectations about age invariance given the fact that this would be the first study to evaluate age invariance in adolescents. Regarding construct validity, we evaluated associations between the LPFS-BF 2.0 and constructs that have previously been associated with personality disorder, specifically, empathy, reflective functioning, and alexithymia. Empathy is one of the subdomains that contributes to the broader interpersonal functioning domain of LPF, and is therefore an important component of overall personality functioning. Thus, we expected empathy would be negatively associated with the LPFS-BF 2.0. Alexithymia constitutes aspects of difficulties identifying internal states, and is related to mentalization (39,40). Mentalization or reflective functioning (i.e., the ability to reflect on internal mental states of both the self and others) has been recognized as important for the assessment of personality functioning (3,41), and several studies have supported links between mentalizing difficulties and personality pathology (42,43). Therefore, we expected that the LPFS-BF 2.0 would demonstrate positive associations with alexithymia and negative associations with reflective functioning.

Our second aim was to evaluate whether the LPFS-BF 2.0 could distinguish between adolescents with and without a history of parental neglect. Meta-analytic studies of personality disorder have demonstrated a clear link between personality pathology and a history of maltreatment, albeit not specific to personality pathology per se (44,45). In addition, studies in adult samples have shown that

retrospective report of maltreatment associate with LPF (46,47). To our knowledge, whether adolescents with a history of parental neglect differ in their LPF has not yet been investigated. Thus, our second aim was to compare LPF scores between young people with a history of parental abuse and neglect and a community sample of adolescents.

To summarize, the first aim of the present study was to evaluate the psychometric properties of the LPFS-BF 2.0 in Spanish-speaking adolescents by evaluating the factor structure, measurement invariance across age and gender, internal consistency, and convergent validity of this measure. We expected to find support for a unidimensional factor structure, measurement invariance across gender, and good internal consistency and convergent validity. Our second aim was to evaluate if the LPFS-BF 2.0 could distinguish between adolescents with and without a history of parental neglect, given prior work demonstrating differences in LPF between adults with and without a history of neglect.

## Method

### *Participant Characteristics*

A total of 570 adolescents between the ages of 11 and 18 residing in the Spanish province of Gipuzkoa (Mage = 14.01, 49% female) were recruited. Of the total sample 168 adolescents (Mage = 14.56, SD = 1.74) had a history of parental abuse and neglect and were receiving services from the Trebatu Program, which is a specialized child protection program that works with children and adolescents alongside their families to provide socio-educational and psychological services. This program handles situations ranging from severe child abuse and neglect that does not necessarily require separation to adolescents with more serious neglect and abuse whom need to be separated from their parents. The community control sample included 402 adolescents recruited from four schools in the region sponsored by the public voucher system (Mage = 13.78 years, SD = 1.51). The public voucher system is a hybrid between public and private education, such that schools are privately managed but financed with public funds and enroll students under very similar conditions to those of publicly owned centers (i.e., free education, students with financial needs are enrolled). Given that all participants in the Trebatu program were enrolled in public schools or schools within the public voucher system, we believe the adolescents in the community sample from the public voucher system are a reasonable comparison group. As such, adolescents from private schools were not included given the potential bias that could result from this comparison group with regard to socio-economic status. Descriptive statistics of the two groups are provided in Table 1.

### *Procedure*

Adolescents who suffered parental abuse and neglect and were receiving services from the Trebatu Program were provided with the study details and informed consent was obtained by the adolescent and legal guardian. Participants then completed the questionnaires while they were in the Trebatu program. Inclusion criteria for the adolescents in the Trebatu Program included being enrolled in the program and a sufficient ability to speak and understand Spanish. Exclusion criteria included significant cognitive problems or mental disabilities that would impact ability to provide informed consent and study participation, and difficulties understanding and speaking Spanish. All clinicians received training on delivering the study measures in order to ensure homogeneity in study procedures across participants.

Recruitment of the community control sample took place at regional schools where study technicians from the Trebatu program provided a presentation about the study to students. Students were provided a consent form to take home to their legal guardians, and those who received parental consent for

**TABLE 1.** Descriptive Statistics.

| Variable | Control (*n*= 402) | | Experimental (*n*= 168) | | Group Differences | |
|---|---|---|---|---|---|---|
| | M or n | SD or % | M or n | SD or % | $\chi^2$ or t | *p* value |
| Age | 13.78 | 1.51 | 14.56 | 1.74 | -5.43 | <.001 |
| Gender | | | | | 5.96 | .015 |
| Male | 190 | 47.3 | 97 | 57.7 | | |
| Female | 210 | 52.2 | 68 | 40.5 | | |
| Non-binary | 2 | 0.50 | 3 | 1.8 | | |
| Nationality | | | | | 50.29 | <.001 |
| National | 378 | 94.0 | 123 | 73.2 | | |
| Foreign | 11 | 2.7 | 26 | 15.5 | | |
| Double Nationality | 13 | 3.2 | 19 | 11.3 | | |
| RFQ-Y Total | 21.62 | 4.32 | 21.00 | 4.84 | 1.51 | .066 |
| EQ Total | 40.40 | 9.79 | 37.88 | 10.45 | 2.75 | .003 |
| LPFS Total | 25.38 | 6.51 | 26.26 | 7.13 | -1.43 | .077 |
| TAS Total | 64.70 | 13.19 | 64.79 | 13.93 | -0.12 | .454 |

participation were provided access to the study questionnaires which were completed online during school hours. All study measures were completed at one timepoint. While participants in the community sample did not complete questionnaires regarding childhood or parental neglect, the research team verified that none of the adolescents in the community sample were receiving treatment in the Trebatu program during the evaluation process. Thus, no participants in the community sample were in a family environment considered severe or at very high risk of neglect, which is the case for the population comprising the Trebatu program.

Participants were entered into a raffle to receive gift cards to a local cultural shop in exchange for their participation. Three gift cards were drawn at random, with two individuals from the sample of adolescents with a history of neglect and abuse chosen and one participant from the community control sample.

### Measures

*Level of Personality Functioning*

The Level of Personality Functioning – Brief Form 2.0 (LPFS-BF 2.0) is a 12-item self-report measure of Criterion A (i.e., personality functioning) of the AMPD (18). This measure uses a 4-point Likert scale in which responses range from 1 (completely untrue) to 4 (completely true). The LPFS-BF 2.0 assesses the level of personality functioning across 12 facets which constitute two higher-order domains of personality functioning: self- and interpersonal-functioning. Total scores represent an overall level of personality functioning, with greater scores indicating greater impairment. While a validated Spanish translation of the LPFS-BF 2.0 exists (30), data collection for the current study began in March of 2021, before this validation was published. Thus, we translated the English version of the LPFS-BF 2.0 to Spanish, which began by having a bilingual clinician produce a literal translation of the measure. Next, this translation was reviewed by two expert psychologists who checked the expression and content of items alongside the translator. This checked questionnaire was then provided to clinicians of the Trebatu Program who have worked with the adolescents enrolled and have knowledge of personality functioning as a construct. After integrating suggestions for improvements across these professionals, the final version was reviewed again by the research team (including checks via back-translation) to verify it was semantically and conceptually equivalent to the original measure.

*Reflective Functioning.*

The Reflective Functioning Questionnaire for Adolescents (RFQ-Y) is a self-report measure of reflective functioning derived from the original 46-item RFQ-Y using item response theory (48). This version consists of 5 items, each measured on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The sum of these items creates a total score in which higher scores reflect greater reflective functioning. Prior work has found strong internal consistency and construct validity for this measure in a sample of adolescents (48). The RFQ-Y was translated to Spanish following the same procedures as the LPFS-BF 2.0. Internal consistency was adequate in the current sample (Total $\omega = .75$, $\alpha = .75$). Given a validated translation of this measure was not available at the time the study was conducted, we investigated psychometric properties through the fit of a unidimensional factor structure and inter-item correlations. These analyses revealed strong psychometric properties, and fit of the unidimensional model, factor loadings, and inter-item correlations are all provided in Supplemental Materials.

*Alexithymia*

Participants completed the Spanish adaptation of the Toronto Alexithymia Scale (TAS; 50), a 20-item self-report measure which assesses alexithymia, or the difficulty identifying, describing, and attending to emotions (49). Items are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items 4, 5, 10, 18, and 19 are reverse scored, and items are then summed to create a total where higher scores reflect greater alexithymia. Prior work has demonstrated strong psychometric properties for both the original version of this measure (51) and for the Spanish translation (50). Moreover, research supports the use of this measure in adolescents (52). Internal consistency for the TAS was adequate (Hierarchical $\omega = .77$, $\alpha = .76$).

*Empathy Quotient*

The Empathy Quotient (EQ) is a self-report measure of empathy (53), consisting of 60 items rated on a 4-point Likert scale which ranges from 1 (definitely agree) to 4 (definitely disagree). While originally developed in English (53), participants completed the validated Spanish translation of this measure (54). For items 1, 6, 19, 22, 25, 26, 35, 36, 37, 38, 41, 42, 43, 44, 52, 54, 55, 57, 58, 59, and 60, "strongly disagree" responses earned 2 points while "slightly disagree" responses earned 1 point. For items 4, 8, 10, 11, 12, 14, 15, 18, 21, 27, 28, 29, 32, 34, 39, 46, 48, 49, and 50, a response of "definitely disagree" earned 2 points, while "slightly disagree" earned 1 point. Additionally, 20 filler items (items 2, 3, 5, 7, 9, 13, 16, 17, 20, 23, 24, 30, 31, 33, 40, 45, 47, 51, 53, and 56) were used to distract participants from the focus on empathy. Prior work has demonstrated strong psychometric properties for the Spanish

translation of the EQ, including internal consistency and convergent validity (54). Items were summed to create a total score where greater scores reflect higher levels of empathy. Internal consistency for this measure was adequate (Hierarchical ω = .83, α = .81).

### *Statistical Analyses*

Data was first inspected for skewness and kurtosis, with values of skewness between -3 and +3 and kurtosis values between – 10 and +10 considered acceptable (55). Results from this inspection indicated skewness and kurtosis were not a concern. Supplemental Table 1 provides the range, mean, standard deviation, skewness, and kurtosis values for each of the LPFS-BF 2.0 items. Histograms were also visually inspected, and the distribution of the LPFS-BF 2.0 total score in both the community and experimental sample were slightly skewed toward more adaptive personality functioning. We used confirmatory factor analysis (CFA) to assess the fit of a unidimensional model of the LPFS-BF 2.0 in the community-based sample using Mplus version 8.6 (56). Given that the LPFS-BF 2.0 has four scale points, we used the weighted least square mean and variance adjusted (WLSMV) estimator given that prior work has indicated significant shortcomings of using maximum likelihood (ML) estimation when a measure has less than five scale points, such as the tendency to underestimate factor loadings and parameter standard errors (57). In particular, a recent study demonstrated that factor loadings were substantially underestimated with ML when responses only had four scale points, whereas factor loadings with WLSMV were essentially unbiased (58). Thus, given the LPFS-BF 2.0 only has four scale points, we chose to use WLSMV. Goodness of model fit was examined through the $\chi 2$, the root mean square error of approximation (RMSEA), the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), and the standardized root-mean-square residual (SRMR). We used the following benchmarks to assess goodness of model fit: RMSEA < .08 indicating reasonable fit and >.10 indicating poor fit, CFI and TLI values between .95 and 1 indicating excellent fit and values between .90 and .95 indicating acceptable fit, and SRMR values <.08 indicating acceptable fit (59,60). Of note, we favored SRMR over RMSEA given that prior work has indicated that SRMR yields more acceptable type I error rates for ordinal data (61), but still report the RMSEA values. We then conducted measurement invariance analyses to assess for gender and age differences in item function. For age, we specifically examined measurement invariance among early (11–14-year-olds) and late (15–18-year-olds) adolescents. For gender invariance, we did not include individuals identifying as non-binary. We assessed for configural (constrained factor loadings and thresholds with items loading on the same factor for each group), metric (constrained factor loadings but freed thresholds), and scalar invariance (thresholds constrained between groups). In order to test for scalar and metric invariance, we specifically used the following general benchmarks to reflect measurement invariance: 1) changes in SRMR values below 0.03, and 2) changes in CFI values below 0.01 (62).

To evaluate internal consistency, we report both Cronbach's alpha and McDonald's Hierarchical Omega, though place greater weight on Omega results given the limitations of Cronbach's alpha (63). Additionally, we examined inter-item correlations. For convergent validity, we examined the correlations of the LPFS-BF 2.0 with other measures related to personality functioning. Finally, we used independent samples t-tests to examine group differences on the LPFS-BF 2.0 scores.

## Results

### *Confirmatory factor analyses*

The CFA demonstrated acceptable fit for the unidimensional model, $\chi 2$ (54) = 208.95, p<.001, RMSEA = .084, CFI = .94, TLI = .93, SRMR = .06. Factor loadings (Table 2) ranged from .27-.83, with

**TABLE 2.** Confirmatory factor analysis of the LPFS-BF 2.0

| *Item* | *Standardized Factor Loading* | *S.E.* | *p-value* |
|---|---|---|---|
| 1. I often do not know who I really am | .78 | .03 | <.001 |
| 2. I often think very negatively about myself | .71 | .03 | <.001 |
| 3. My emotions change without me having a grip on them | .76 | .03 | <.001 |
| 4. I have no sense of where I want to go in my life | .50 | .04 | <.001 |
| 5. I often do not understand my own thoughts and feelings | .83 | .03 | <.001 |
| 6. I often make unrealistic demands on myself | .49 | .04 | <.001 |
| 7. I often have difficulty understanding the thoughts and feelings of others | .27 | .05 | <.001 |
| 8. I often find it hard to stand it when others have a different opinion | .37 | .05 | <.001 |
| 9. I often do not fully understand why my behavior have a certain effect on others | .58 | .04 | <.001 |
| 10. My relationships and friendships never last long | .51 | .05 | <.001 |
| 11. I often feel very vulnerable when relations become more personal | .57 | .04 | <.001 |
| 12. I often do not succeed in cooperating with ours in a mutually satisfactory way | .59 | .04 | <.001 |

an average of .58. The highest factor loading (.83) was from the self-direction subdomain, specifically regarding one's ability to understand their own thoughts and feelings (item 5). The second highest factor loading (.78) was for item 1 from the identity domain, which concerns one's ability to know who they are. The lowest factor loading (.27) came from the empathy subdomain, specifically item 7, which assesses difficulties in understanding the thoughts and feelings of others.

### *Measurement Invariance*

Measurement invariance was obtained for age, indicating no differences in item functioning between early (n = 291) and late (n = 109) adolescents. Table 3 shows the goodness-of-fit statistics for measurement invariance of the LPFS-BF 2.0 across the two age groups. We note that for metric invariance, the change in CFI was .01. However, given our sample size of over 300, metric noninvariance would require both a change in CFI ≥ .01 and a change of ≥ .030 in SRMR (62). Since the change in SRMR was .01, we interpret the results to suggest measurement invariance for age.

Measurement invariance was also obtained for gender (Table 4). However, the change in CFI between the metric and scalar models was greater than .01 (absolute value). However, scalar noninvariance for a sample size greater than 300 would require a change in CFI ≥ -.01 to be accompanied by a change of ≥ .010 in SRMR (59). Since change in SRMR between the metric and scalar models was below this threshold at .003, we interpreted this as support for measurement invariance across genders.

### *Internal Consistency*

Inter-item correlations were evaluated with Pearson correlations, as shown in Table 5 (M = 0.27, range = .04 - .58). Items 7 (I often have difficulty understanding the thoughts and feelings of others) and 10 (My relationships and friendships never last long) specifically showed the lowest inter-item correlations. Moreover, McDonald's Hierarchical Omega and Cronbach's Alpha indicated adequate internal consistency reliability (ω = .83, α = .82).

### *Convergent Validity*

Table 6 presents the correlation matrix among the LPFS, EQ, RFQ, TAS, age and gender. Correlations were all in the expected direction to support convergent validity. Specifically, the LPFS-BF 2.0 total score showed small negative associations with the EQ total score (r = -.19, p < .001) and RFQ total score (r = -.07, p = .046), such that higher scores on the LPFS (i.e. poorer personality functioning) were

**TABLE 3.** Measurement Invariance of the LPFS-BF 2.0 Across Age

| Model | $\chi^2$ (*df*) | CFI | TLI | RMSEA | SRMR | ΔCFI | ΔSRMR |
|---|---|---|---|---|---|---|---|
| Configural | 269.70 (108) | 0.934 | 0.919 | 0.087 | 0.057 | | |
| Metric | 247.11 (119) | 0.948 | 0.942 | 0.073 | 0.067 | 0.01 | .01 |
| Scalar | 295.16 (154) | 0.942 | 0.951 | 0.068 | 0.069 | -0.006 | .002 |

*Note: Age was missing for 2 participants, thus N = 400.*

**TABLE 4.** Measurement Invariance of the LPFS-BF 2.0 Across Gender

| Model | $\chi^2$ (*df*) | CFI | TLI | RMSEA | SRMR | ΔCFI | ΔSRMR |
|---|---|---|---|---|---|---|---|
| Configural | 290.76(108) | .942 | .930 | .077 | .054 | | |
| Metric | 289.59 (119) | .946 | .940 | .071 | .063 | .004 | .009 |
| Scalar | 406.58 (154) | .920 | .932 | .076 | .066 | -.026 | .003 |

**TABLE 5.** Inter-item Correlations of the LPFS-BF 2.0

| | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | LPFS1 | -- | | | | | | | | | | | |
| 2. | LPFS2 | .53** | -- | | | | | | | | | | |
| 3. | LPFS3 | .47** | .48** | -- | | | | | | | | | |
| 4. | LPFS4 | .36** | .34** | .37** | -- | | | | | | | | |
| 5. | LPFS5 | .58** | .52** | .61** | .38** | -- | | | | | | | |
| 6. | LPFS6 | .34** | .32** | .36** | .24** | .36** | -- | | | | | | |
| 7. | LPFS7 | .09 | .07 | .10* | .08 | .12* | .11* | -- | | | | | |
| 8. | LPFS8 | .11* | .19** | .15** | .12* | .22** | .11* | .18** | -- | | | | |
| 9. | LPFS9 | .36** | .24** | .33** | .16** | .37** | .26** | .30** | .31** | -- | | | |
| 10. | LPFS10 | .36** | .26** | .27** | .17** | .24** | .07 | .04 | .10 | .21** | -- | | |
| 11. | LPFS11 | .37** | .34** | .34** | .22** | .38** | .15** | .16** | .24** | .35** | .25** | -- | |
| 12. | LPFS12 | .35** | .33** | .35** | .16** | .36** | .23** | .24** | .32** | .35** | .29** | .34** | -- |

*Note: **p<.01, *p<.05*

related to lower scores on measures of empathy and mentalizing. The LPFS-BF 2.0 showed positive correlations with the TAS total score with a large effect size (r = .68, p <.001) such that higher scores on the LPFS-BF 2.0 were associated with higher levels of alexithymia. Finally, regarding associations with demographic variables, the LPFS-BF 2.0 was not significantly associated with age (r = .04, p = .20), but was positively associated with gender (r = .18, p <.001) such that female gender was associated with higher scores on the LPFS-BF 2.0, suggesting poorer personality functioning for girls.

### *Group Differences in LPF*

There were no significant differences in the LPFS-BF 2.0 total score between adolescents with a history of neglect (M = 26.26, SD = 7.13) and adolescents from the community sample (M = 25.38, SD = 6.51; t(568) = 1.43, p = .077).

## Discussion

The first aim of this study was to evaluate the psychometric properties of the LPFS-BF 2.0 in Spanish-speaking adolescents. Through this, we examined the factor structure, measurement invariance of the LPFS-BF 2.0 across age and gender, internal consistency, and convergent validity. Next, our second aim was to examine if the LPFS-BF 2.0 could distinguish between adolescents with a history of parental abuse neglect and a community control sample, given prior links between personality pathology and history of childhood maltreatment (44), and associations between retrospective reports of maltreatment and LPF (46,47). Results from the study's first aim supported the unidimensional factor structure of the LPFS-BF 2.0 and measurement invariance across age and gender. Internal consistency was adequate, and convergent validity was supported through significant negative correlations between the LPFS-BF 2.0 and empathy and reflective functioning, and positive correlations with alexithymia. Results from the second aim revealed that the LPFS-BF 2.0 did not distinguish adolescents with a history of parental neglect from community control adolescents, contrary to our expectations.

The confirmatory factor analysis revealed support for the unidimensional factor structure of the LPFS-BF 2.0, which is consistent with the notion that self- and interpersonal-functioning are inextricably linked (4,16,20) and supports the use of a single indicator for personality functioning. Factor loadings support the notion that self-functioning might represent the most defining characteristic of LPF (26), given that the two highest loadings were from the self-functioning domain. Adolescence marks the emergence of metacognitive capacities necessary for developing a sense of self (64). For many adolescents, identity formation will unfold rather smoothly. However, for some adolescents this process will be replete with identity incoherence, confusion, and distress, resulting in maladaptive LPF (24). Sharp (26) argued that adolescent personality pathology is specifically tied to self-development, and if this development goes awry, personality disorder emerges. Taken together, results support that self-functioning is indeed a salient indicator of personality functioning, and the LPFS-BF 2.0 is adequate in capturing this (dys)function in Spanish-speaking adolescents. However, it is important to note that items seven and eight (both from the interpersonal domain) evidenced low factor-loadings; thus, future work may explore if this finding is replicated across other samples of Spanish-speaking adolescents and consider rewording or removing these items if this finding is replicated.

To our knowledge, this study is the first to investigate differences in item function between early and late adolescents in a sample of Spanish-speaking adolescents. Results support that this measure of personality functioning performs similarly across adolescent development, further supporting the validity of this measure in adolescents. In line with findings from the validation of the Spanish translation of the LPFS-BF 2.0 in adults (30), the measure performed similarly for males and females.

Convergent validity was supported through significant negative associations with empathy and reflective functioning, and positive associations with alexithymia. These findings are consistent with the conceptualization of personality functioning, such that empathy is one of the four subdomains of LPF

**TABLE 6.** Pearson Correlation Matrix

| | 1. | 2. | 3. | 4. | 5. | 6. |
|---|---|---|---|---|---|---|
| 1. LPFS-BF 2.0 | -- | | | | | |
| 2. EQ Total | -.19** | -- | | | | |
| 3. RFQ Total | -.07* | .45** | -- | | | |
| 4. TAS Total | .68** | -.26** | -.17** | -- | | |
| 5. Age | .04 | .10** | .08* | -.05 | -- | |
| 6. Gender | .18** | .29** | .17** | .14** | .05 | -- |

*Note: **p<.01, *p<.05; Gender coded as 0 = males, 1 = females. 2 participants identified as non-binary and were not included in this portion of analyses*

(1). Additionally, prior work has emphasized the role of mentalizing in personality functioning, and that individuals with more maladaptive levels of LPF demonstrate poorer reflective functioning (41). However, we recognize that the magnitude of the associations between LPFS-BF 2.0 and empathy and reflective functioning were small. Notably, effect size was the largest between personality functioning and alexithymia, mirroring prior work which has demonstrated that individuals with personality disorder struggle to identify and describe their thoughts and feelings (65,66). Alexithymia captures an aspect of self-functioning; thus, the stronger association between LPF and alexithymia as compared to associations with empathy and reflective functioning support the notion that self-functioning may indeed be a salient indicator of LPF. Regarding associations with demographic variables, we found females were more likely to report greater impairments in personality functioning. This finding mirrors prior work examining LPF in adolescents, in which one study found female adolescents exhibited higher scores than males on the LoPF-Q 12-18 (67), and another indicated that female adolescents scored higher on the LPFS-BF 2.0 (35).

Our second aim of this study examined if the LPFS-BF 2.0 would distinguish adolescents with a history of parental neglect from adolescents in the community sample. Results indicated that this measure did not distinguish these two groups, which was unexpected given prior work showing strong links between childhood maltreatment and the development of personality disorder (see (68) and (69) for reviews; (44)), and studies showing that retrospective reports of childhood maltreatment associate with LPF in adults (46,47). One important consideration that might explain this finding is that the adolescents exposed to parental neglect were provided socio-educational and psychosocial interventions. Prior work has shown that coping strategies and social support may serve as protective factors in the associations between childhood maltreatment and psychopathology (70,71). Thus, it may be that our sample of adolescents with a history of maltreatment did not demonstrate more maladaptive personality functioning as compared to controls given their access to these protective factors.

We recognize that our study was limited given that we did not have more measures to bolster convergent validity, such as additional self-report or interview-based measures of personality functioning. We also note that the reliance on self-report data is a limitation. Further, while the research team verified that adolescents in the community sample were not enrolled in the Trebatu program, we recognize this does not preclude the possibility that adolescents in the community sample could be living in a family environment where neglect is present or imminent, though not yet identified. Thus, our study would have been bolstered by having the community adolescents complete measures of abuse/neglect to ensure this was not the case. Moreover, results from this study would have been stronger if we had a "true" clinical comparison group with a known diagnosis of personality disorder, as this would allow us to establish sensitivity, specificity, and clinical cut-offs. Future work would benefit from using said data and examining the sensitivity and specificity of the LPFS-BF 2.0 and establishing these cut-offs to optimize clinical utility. Moreover, future work should examine the prediction of important clinical outcome variables, such as treatment response and dropout, from the LPFS-BF 2.0 in adolescents. Our relatively large sample of Spanish adolescents is a strength of the current study, especially considering that a majority of personality disorder research uses Western, Educated, Industrialized, Rich, and Democratic (WEIRD; (73)) samples (74). Additionally, this study was the first to validate the Spanish translation of an LPF measure in adolescents, and the first to explore measurement invariance across adolescent development. Of note, data collection began before the publication of Le Corff and colleagues (30), thus, future work may compare these two translations of the LPFS-BF 2.0. As aforementioned, we recognize that items seven and eight evidenced lower factor-loadings than has been found by previous validations of the LPFS-BF 2.0 in adolescents (e.g., 35). Thus, future work may examine if this finding is replicated and if so, explore the potential causes of these lower factor loadings. Finally, given that this study was conducted in a specific region of Spain (i.e., Basque country), future work should also examine the performance of this measure with adolescents residing in other Spanish-speaking countries.

**Summary and Clinical Significance**

In summary, results from this study support the Spanish-translation of the LPFS-BF 2.0 as a valid measure for use in adolescents. The validation of this brief measure of LPF in adolescents is particularly important given the increasing recognition of the onset of PD during adolescence (23,75), along with the removal of age limits in both the ICD-11 and DSM-5 for PD diagnosis (1,7).While future work is needed to establish clinical utility of this measure through the examination of sensitivity, specificity, and clinical cut-offs, this study opens the door for the ability to assess maladaptive self- and interpersonal-functioning and therefore facilitate early diagnosis and intervention for personality pathology in Spanish-speaking adolescents (28,76).

**Ethical considerations**
This study was reviewed and approved by the Diputacion Foral de Gipuzkoa in Spain.

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**Conflict of interests**
The authors have no conflicts of interest to report.

**References**

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders [Internet]. Fifth Edition. American Psychiatric Association; 2013 [cited 2023 Feb 23]. Available from:

   https://psychiatryonline.org/doi/book/10.1176/appi.books.9780890425596

2. Hopwood CJ, Good EW, Morey LC. Validity of the DSM–5 Levels of Personality Functioning Scale–Self Report. J Pers Assess. 2018 Nov 2;100(6):650–9.

3. Bender DS, Morey LC, Skodol AE. Toward a Model for Assessing Level of Personality Functioning in DSM–5 , Part I: A Review of Theory and Methods. J Pers Assess. 2011 Jul;93(4):332–46.

4. Sharp C, Wall K. DSM-5 Level of Personality Functioning: Refocusing Personality Disorder on What It Means to Be Human. Annu Rev Clin Psychol. 2021 May 7;17(1):313–37.

5. Morey LC, McCredie MN, Bender DS, Skodol AE. Criterion A: Level of personality functioning in the alternative DSM–5 model for personality disorders. Personal Disord Theory Res Treat. 2022 Jul;13(4):305–15.

6. Tyrer P, Mulder R, Kim YR, Crawford MJ. The Development of the ICD-11 Classification of Personality Disorders: An Amalgam of Science, Pragmatism, and Politics. Annu Rev Clin Psychol. 2019 May 7;15(1):481–502.

7. World Health Organization (WHO). International Classification of Diseases, Eleventh Revision (ICD-11) [Internet]. 2019. Available from: https://icd.who.int/browse11. Licensed under Creative Commons Attribution-NoDerivatives 3.0 IGO licence (CC BY-ND 3.0 IGO

8. Krueger RF, Derringer J, Markon KE, Watson D, Skodol AE. Initial construction of a maladaptive personality trait model and inventory for DSM-5. Psychol Med. 2012 Sep;42(9):1879–90.

9. Buer Christensen T, Eikenaes I, Hummelen B, Pedersen G, Nysæter TE, Bender DS, et al. Level of personality functioning as a predictor of psychosocial functioning—Concurrent validity of criterion A. Personal Disord Theory Res Treat. 2020 Mar;11(2):79–90.

10. Hopwood CJ, Malone JC, Ansell EB, Sanislow CA, Grilo CM, McGlashan TH, et al. Personality Assessment in DSM-5: Empirical Support for Rating Severity, Style, and Traits. J Personal Disord. 2011 Jun;25(3):305–20.

11. Crawford MJ, Koldobsky N, Mulder R, Tyrer P. Classifying Personality Disorder According to Severity. J Personal Disord. 2011 Jun;25(3):321–30.

12. Sharp C, Cervantes BR. Maladaptive Self- and Interpersonal Functioning Increments General Psychiatric Severity in the Association with Adolescent Personality Pathology. Children. 2023 Jan 6;10(1):120.

13. Veenstra MS, Van Dijk SDM, Bouman R, Van Alphen SPJB, Van Asselt ADIT, Van Den Brink RHS, et al. Impact of personality functioning and pathological traits on mental wellbeing of older patients with personality disorders. BMC Psychiatry. 2022 Dec;22(1):214.

14. Sharp C, Kerr S, Barkauskienė R. The incremental utility of maladaptive self and identity functioning over general functioning for borderline personality disorder features in adolescents. Personal Disord Theory Res Treat. 2022 Sep;13(5):474–81.

15. Zimmermann J, Kerber A, Rek K, Hopwood CJ, Krueger RF. A Brief but Comprehensive Review of Research on the Alternative DSM-5 Model for Personality Disorders. Curr Psychiatry Rep. 2019 Sep;21(9):92.

16. Morey LC, Berghuis H, Bender DS, Verheul R, Krueger RF, Skodol AE. Toward a Model for Assessing Level of Personality Functioning in DSM–5 , Part II: Empirical Articulation of a Core Dimension of Personality Pathology. J Pers Assess. 2011 Jul;93(4):347–53.

17. Hutsebaut J, Feenstra DJ, Kamphuis JH. Development and Preliminary Psychometric Evaluation of a Brief Self-Report Questionnaire for the Assessment of the DSM–5 level of Personality Functioning Scale: The LPFS Brief Form (LPFS-BF). Personal Disord Theory Res Treat. 2016;7(2):192–7.

18. Weekers LC, Hutsebaut J, Kamphuis JH. The Level of Personality Functioning Scale-Brief Form 2.0: Update of a brief instrument for assessing level of personality functioning: The Level of Personality Functioning Scale - Brief Form 2.0. Personal Ment Health. 2019 Feb;13(1):3–14.

19. Bender DS, Skodol AE, First MB, Oldham JM. Module I: Structured Clinical Interview for the Level of Personality Functioning Scale, in First MB, Skodol AE, Bender DS, Oldham JM: Structured Clinical Interview for the DSM-5 Alternative Model for Personality Disorders (SCID-AMPD). American Psychiatric Association; 2018.

20. Hutsebaut J, Berghuis H, De Saeger H, Kaasenbrood A, Ingenhoven T. Semi-Structured Interview for Personality functioning DSM–5 (STiP 5.1). Utrecht, the Netherlands: Trimbos Institute.;

21. Fossati A, Somma A. The assessment of personality pathology in adolescence from the perspective of the Alternative DSM-5 Model for Personality Disorder. Curr Opin Psychol. 2021 Feb;37:39–43.

22. Chanen AM, Kaess M. Developmental Pathways to Borderline Personality Disorder. Curr Psychiatry Rep. 2012 Feb;14(1):45–53.

23. Winsper C, Lereya ST, Marwaha S, Thompson A, Eyden J, Singh SP. The aetiological and psychopathological validity of borderline personality disorder in adolescents: A systematic review and meta-analysis. Clin Psychol Rev. 2016 Mar;44:13–24.

24. Sharp C, Wall K. Personality pathology grows up: adolescence as a sensitive period. Curr Opin Psychol. 2018 Jun;21:111–6.

25. Zanarini MC, Temes CM, Magni LR, Fitzmaurice GM, Aguirre BA, Goodman M. Prevalence rates of borderline symptoms reported by adolescent inpatients with BPD, psychiatrically healthy adolescents and adult inpatients with BPD. Personal Ment Health. 2017 Aug;11(3):150–6.

26. Sharp C. Adolescent Personality Pathology and the Alternative Model for Personality Disorders: Self Development as Nexus. Psychopathology. 2020;53(3–4):198–204.

27. Barkauskienė R, Gaudiešiūtė E, Adler A, Gervinskaitė-Paulaitienė L, Laurinavičius A, Skabeikytė-Norkienė G. Criteria A and B of the Alternative DSM-5 Model for Personality Disorders (AMPD) Capture Borderline Personality Features Among Adolescents. Front Psychiatry. 2022;13:828301.

28. Chanen A, Sharp C, Hoffman P, Global Alliance for Prevention and Early Intervention for Borderline Personality Disorder. Prevention and early intervention for borderline personality disorder: a novel public health priority. World Psychiatry. 2017 Jun;16(2):215–6.

29. Bach B, Hutsebaut J. Level of Personality Functioning Scale–Brief Form 2.0: Utility in Capturing Personality Problems in Psychiatric Outpatients and Incarcerated Addicts. J Pers Assess. 2018 Nov 2;100(6):660–70.

30. Le Corff Y, Aluja A, Rossi G, Lapalme M, Forget K, García LF, et al. Construct Validity of the Dutch, English, French, and Spanish LPFS-BF 2.0: Measurement Invariance Across Language and Gender and Criterion Validity. J Personal Disord. 2022 Dec;36(6):662–79.

31. Natoli AP, Bach B, Behn A, Cottin M, Gritti ES, Hutsebaut J, et al. Multinational evaluation of the measurement invariance of the Level of Personality Functioning Scale–brief form 2.0: Comparison of student and community samples across seven countries. Psychol Assess. 2022 Dec;34(12):1112–25.

32. Roche MJ, Jaweed S. Comparing Measures of Criterion A to Better Understand Incremental Validity in the Alternative Model of Personality Disorders. Assessment. 2023 Apr;30(3):689–705.

33. Łakuta P, Cieciuch J, Strus W, Hutsebaut J. Level of Personality Functioning Scale-Brief Form 2.0: Validity and reliability of the Polish adaptation. Psychiatr Pol. 2023 Apr 30;57(2):247–60.

34. Schetsche C. Traducción y adaptación de la Level of Personal Functioning Scale - Brief Form 2.0. Cienc Psicológicas [Internet]. 2021 Jul 5 [cited 2023 Nov 18]; Available from:

    https://revistas.ucu.edu.uy/index.php/cienciaspsicologicas/article/view/2387

35. Wu J, Allman M, Balzen KM, Sharp C. Validation of the Level of Personality Functioning Scale Brief Form 2.0 in a sample of North American adolescents. Personality Disorders: Theory, Research and Treatment.

36. Biberdzic M, Tang J, Tan J. Beyond difficulties in self-regulation: the role of identity integration and personality functioning in young women with disordered eating behaviours. J Eat Disord. 2021 Dec;9(1):93.

37. McCabe GA, Oltmanns JR, Widiger TA. Criterion A Scales: Convergent, Discriminant, and Structural Relationships. Assessment. 2021 Apr;28(3):813–28.

38. Spitzer C, Müller S, Kerber A, Hutsebaut J, Brähler E, Zimmermann J. Die deutsche Version der Level of Personality Functioning Scale-Brief Form 2.0 (LPFS-BF): Faktorenstruktur, konvergente Validität und Normwerte in der Allgemeinbevölkerung. PPmP - Psychother · Psychosom · Med Psychol. 2021 Jul;71(07):284–93.

39. Choi-Kain LW, Gunderson JG. Mentalization: Ontogeny, Assessment, and Application in the Treatment of Borderline Personality Disorder. Am J Psychiatry. 2008 Sep;165(9):1127–35.

40. Šago D, Babić G. Roots of Alexithymia. Arch Psychiatry Res. 2019 Jun 15;55(1):71–84.

41. Zettl M, Volkert J, Vögele C, Herpertz SC, Kubera KM, Taubner S. Mentalization and criterion a of the alternative model for personality disorders: Results from a clinical and nonclinical sample. Personal Disord Theory Res Treat. 2020 May;11(3):191–201.

42. Sharp C, Pane H, Ha C, Venta A, Patel AB, Sturek J, et al. Theory of Mind and Emotion Regulation Difficulties in Adolescents With Borderline Traits. J Am Acad Child Adolesc Psychiatry. 2011 Jun;50(6):563-573.e1.

43. Chiesa M, Fonagy P. Reflective function as a mediator between childhood adversity, personality disorder and symptom distress. Personal Ment Health. 2014 Feb;8(1):52–66.

44. Porter C, Palmier-Claus J, Branitsky A, Mansell W, Warwick H, Varese F. Childhood adversity and borderline personality disorder: a meta-analysis. Acta Psychiatr Scand. 2020 Jan;141(1):6–20.

45. Baldwin JR, Wang B, Karwatowska L, Schoeler T, Tsaligopoulou A, Munafò MR, et al. Childhood Maltreatment and Mental Health Problems: A Systematic Review and Meta-Analysis of Quasi-Experimental Studies. Am J Psychiatry. 2023 Feb 1;180(2):117–26.

46. Back SN, Zettl M, Bertsch K, Taubner S. Persönlichkeitsfunktionsniveau, maladaptive Traits und Kindheitstraumata. Psychotherapeut. 2020 Sep;65(5):374–82.

47. d'Huart D, Hutsebaut J, Seker S, Schmid M, Schmeck K, Bürgin D, et al. Personality functioning and the pathogenic effect of childhood maltreatment in a high-risk sample. Child Adolesc Psychiatry Ment Health. 2022 Nov 30;16(1):95.

48. Sharp C, Steinberg L, McLaren V, Weir S, Ha C, Fonagy P. Refinement of the Reflective Function Questionnaire for Adolescents (RFQY) Scale B Using Item Response Theory. Assessment. 2022 Sep;29(6):1204–15.

49. Bagby RM, Parker JDA, Taylor GJ. The twenty-item Toronto Alexithymia scale—I. Item selection and cross-validation of the factor structure. J Psychosom Res. 1994 Jan;38(1):23–32.

50. Martínez Sánchez F. Adaptación española de la escala de Alexitimia de Toronto (TAS-20). [The Spanish version of the Toronto Alexithymia Scale (TAS-20).]. Clínica Salud. 1996;7(1):19–32.

51. Bagby RM, Parker JDA, Taylor GJ. Twenty-five years with the 20-item Toronto Alexithymia Scale. J Psychosom Res. 2020 Apr;131:109940.

52. Loas G, Braun S, Delhaye M, Linkowski P. The measurement of alexithymia in children and adolescents: Psychometric properties of the Alexithymia Questionnaire for Children and the twenty-item Toronto Alexithymia Scale in different non-clinical and clinical samples of children and adolescents. Van Luijtelaar G, editor. PLOS ONE. 2017 May 25;12(5):e0177982.

53. Baron-Cohen S, Wheelwright S. The Empathy Quotient: An Investigation of Adults with Asperger Syndrome or High Functioning Autism, and Normal Sex Differences. J Autism Dev Disord. 2004 Apr;34(2):163–75.

54. Redondo I, Herrero-Fernández D. Adaptación del Empathy Quotient (EQ) en una muestra española. Ter Psicológica. 2018 Aug;36(2):81–9.

55. Brown T. Confirmatory factor analysis for applied research. Guilford Press; 2006.

56. Muthén LK, Muthén B. Mplus User's Guide. Los Angeles, CA: Muthén & Muthén; 1998.

57. Rhemtulla M, Brosseau-Liard PÉ, Savalei V. When can categorical variables be treated as continuous? A comparison of robust continuous and categorical SEM estimation methods under suboptimal conditions. Psychol Methods. 2012 Sep;17(3):354–73.

58. Li CH. Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. Behav Res Methods. 2016 Sep;48(3):936–49.

59. Browne MW, Cudeck R. Alternative ways of assessing model fit. In: Testing structural equalion riiodels. Sage; 1993. p. 136–62.

60. Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Struct Equ Model Multidiscip J. 1999 Jan;6(1):1–55.

61. Shi D, Maydeu-Olivares A, Rosseel Y. Assessing Fit in Ordinal Factor Analysis Models: SRMR vs. RMSEA. Struct Equ Model Multidiscip J. 2020 Jan 2;27(1):1–15.

62. Chen FF. Sensitivity of Goodness of Fit Indexes to Lack of Measurement Invariance. Struct Equ Model Multidiscip J. 2007 Jul 31;14(3):464–504.

63. Hayes AF, Coutts JJ. Use Omega Rather than Cronbach's Alpha for Estimating Reliability. But…. Commun Methods Meas. 2020 Jan 2;14(1):1–24.

64. McAdams DP. Three Lines of Personality Development: A Conceptual Itinerary. Eur Psychol. 2015 Oct;20(4):252–64.

65. De Panfilis C, Ossola P, Tonna M, Catania L, Marchesi C. Finding words for feelings: The relationship between personality disorders and alexithymia. Personal Individ Differ. 2015 Feb;74:285–91.

66. Kılıç F, Demirdaş A, Işık Ü, Akkuş M, Atay İM, Kuzugüdenlioğlu D. Empathy, Alexithymia, and Theory of Mind in Borderline Personality Disorder. J Nerv Ment Dis. 2020 Sep;208(9):736–41.

67. Kerr S, McLaren V, Cano K, Vanwoerden S, Goth K, Sharp C. Levels of Personality Functioning Questionnaire 12-18 (LoPF-Q 12-18): Factor Structure, Validity, and Clinical Cut-Offs. Assessment. 2023 Sep;30(6):1764–76.

68. Ibrahim J, Cosgrave N, Woolgar M. Childhood maltreatment and its link to borderline personality disorder features in children: A systematic review approach. Clin Child Psychol Psychiatry. 2018 Jan;23(1):57–76.

69. Stepp SD, Lazarus SA, Byrd AL. A systematic review of risk factors prospectively associated with borderline personality disorder: Taking stock and moving forward. Personal Disord Theory Res Treat. 2016 Oct;7(4):316–23.

70. Buchanan M, Walker G, Boden JM, Mansoor Z, Newton-Howes G. Protective factors for psychosocial outcomes following cumulative childhood adversity: systematic review. BJPsych Open. 2023 Nov;9(6):e197.

71. Su Y, Meng X, Yang G, D'Arcy C. The relationship between childhood maltreatment and mental health problems: coping strategies and social support act as mediators. BMC Psychiatry. 2022 Dec;22(1):359.

72. Waxman R, Fenton MC, Skodol AE, Grant BF, Hasin D. Childhood maltreatment and personality disorders in the USA: Specificity of effects and the impact of gender. Personal Ment Health. 2014 Feb;8(1):30–41.

73. Henrich J, Heine SJ, Norenzayan A. Most people are not WEIRD. Nature. 2010 Jul;466(7302):29–29.

74. Vanwoerden S, Chandler J, Cano K, Mehta P, Pilkonis PA, Sharp C. Sampling methods in personality pathology research: Some data and recommendations. Personal Disord Theory Res Treat. 2023 Jan;14(1):19–28.

75. Dalsgaard S, Thorsteinsson E, Trabjerg BB, Schullehner J, Plana-Ripoll O, Brikell I, et al. Incidence Rates and Cumulative Incidences of the Full Spectrum of Diagnosed Mental Disorders in Childhood and Adolescence. JAMA Psychiatry. 2020 Feb 1;77(2):155.

76. Sharp C, Cano K, Bo S, Hutsebaut J. The assessment of personality function in adolescents. In: Huprich SK, editor. Personality disorders and pathology: Integrating clinical assessment and practice in the DSM-5 and ICD-11 era [Internet]. Washington: American Psychological Association; 2022 [cited 2024 May 20]. p. 109–34. Available from: https://content.apa.org/books/17272-006