

Translation and adaptation of the Level of Personal Functioning Scale - Brief Form 2.0

Traducción y adaptación de la Level of Personal Functioning Scale - Brief Form 2.0

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Abstract: The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) introduced the concept of levels of personality functioning, which indicates the severity of personality disorders. In our knowledge, there are no concise psychometric instruments for assessing the level of personality functioning in Spanish, so the objective of this study was the translation and adaptation of the Level of Personal Functioning Scale - Brief Form 2.0. The sample (N = 361) was collected via Internet. The results of the confirmatory factor analysis showed that the instrument has a bifactorial structure and it can be used, in addition to its two dimensions, self-functioning and interpersonal functioning, a factor that represents general functioning. Evidence of internal consistency is provided, and significant correlations were found with all personality traits.

Keywords: level of personal functioning; confirmatory factor analysis; translation; adaptation.

Resumen: La quinta edición del *Manual Diagnóstico y Estadístico de los Trastornos Mentales* (DSM-5) introdujo el concepto de niveles de funcionamiento de la personalidad, los cuales indican la gravedad del trastorno de la personalidad. En nuestro conocimiento, no existen instrumentos psicométricos concisos para la evaluación del nivel de funcionamiento de la personalidad en lengua castellana, por lo que el objetivo del presente estudio consistió en la traducción y adaptación de la Level of Personal Functioning Scale - Brief Form 2.0. La muestra (N = 361) se recogió por internet. Los resultados del análisis factorial confirmatorio mostraron que el instrumento tiene una estructura bifactorial y que puede utilizarse, además de sus dos dimensiones autofuncionamiento y funcionamiento interpersonal, una dimensión que representa el funcionamiento general. Las consistencias internas obtuvieron valores aceptables, y en el análisis de validez convergente se encontraron correlaciones significativas con todos los rasgos de la personalidad.

Palabras clave: nivel de funcionamiento de la personalidad; análisis factorial confirmatorio; traducción; adaptación.



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Resumo: A quinta edição do *Manual Diagnóstico e Estatístico de Transtornos Mentais* (DSM-5) introduziu o conceito de níveis de funcionamento da personalidade, que indicam a gravidade do transtorno da personalidade. Tanto quanto sabemos, não existem instrumentos psicométricos concisos para avaliar o nível de funcionamento da personalidade na língua espanhola, pelo que o objetivo deste estudo consistiu na tradução e adaptação da Level of Personal Functioning Scale – Brief Form 2.0. A amostra (N = 361) foi coletada via internet. Os resultados da análise fatorial confirmatória mostraram que o instrumento possui uma estrutura bifatorial e que pode ser utilizado, para além das suas duas dimensões, autofuncionamento e funcionamento interpessoal, com um fator que representa o funcionamento geral. As consistências internas obtiveram valores aceitáveis, e na análise da validade convergente foram encontradas correlações significativas com todos os traços de personalidade.

Palavras-chave: nível de funcionamento da personalidade; análise fatorial confirmatória; tradução; adaptação.

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To carry out a psychological evaluation, a certain sequence of steps is considered. At level one, a specific classification system (categorical diagnosis) is selected that could be based on the ICD or DSM. Next, the clinically relevant facets are analyzed, meaning that a general evaluation, verification of symptoms (for example, depression, and anxiety), and aspects of the personality are carried out. At level three, procedures are used that, beyond the pathology and associated aspects, cover clinically relevant areas in the sense of consequences of the disorder, such as alterations in daily life and/or quality of life. Finally, at level four, a differentiation concerning therapy schools is required, since diagnostic procedures differ according to the therapy being carried out (Laireiter, 2013; Stieglitz, 2014).

In this way, analyzing people and determining those differences that are relevant for the planning and success of psychotherapy are one of the main challenges of clinical research in psychology (Levy & Clarkin, 2003). There is a growing consensus that the severity of a potential personality disorder is a patient variable that is highly relevant to the diagnosis (Bernstein, 1998; Hopwood et al., 2011; Leising & Zimmermann, 2011). This is exemplified in the area of diagnosis of personality disorder: although the previous systems DSM-IV

(American Psychiatric Association [APA], 2000) and ICD-10 (World Health Organization [WHO], 1993) mentioned different categories of personality disorders, they did not classify their severity.

In May 2013, the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) was published. While Section II (*Essential Elements: Diagnostic Criteria and Codes*) was adopted practically without changes from the previous model (DSM-IV), DSM-5 contains, in section III (*Emerging measures and models*), an alternative model that complements the classification of personality disorders (APA, 2013).

The central innovation of this alternative model is the differentiation of two components of personality disorder: on the one hand, there are deficiencies in the level of personality functioning (criterion A) and, on the other hand, the presence of maladaptive personality traits (criterion B) (Zimmermann et al., 2013).

Through criterion A, generic deficiencies underlying all types of personality disorders are assessed. This approach assumes that all personality disorders share some essential points that, taken together, distinguish them from other mental conditions (Morey et al., 2011). The new DSM-5 model (APA, 2013) operationalizes the level of personality functioning through the Level of Personality Functioning Scale, or LPFS, by Bender, Morey and Skodol (2011). This scale aims to clarify whether there is a personality disorder and, if so, to assess its magnitude. The scale is based on the assumption that the common denominator of all personality disorders lies in the deterioration of basic adaptive capacities (Livesley, 1998) and has the following dimensions and subdimensions (APA, 2013): self-functioning (identity and self-direction) and interpersonal functioning (empathy and intimacy). The assumption that personality disorder is essentially a disorder of the "self" and interpersonal relationships is in line with a wide range of different and influential theories on the development and treatment of personality disorders (Hopwood, Schade, Krueger, Wright & Markon, 2013; Kernberg, 2012; Luyten & Blatt, 2011).

Consequently, criterion A facilitates the determination of whether the patient has a personality disorder and the assessment of its severity, while criterion B (personality traits) provides information on the unique characteristics of the disorder (Bach & Hutsebaut, 2018). As a result, the model can be understood as a hybrid construction based on the evaluation of these two dimensions. The dual approach of the APA (2013) aims to ensure continuity with previous diagnostic practice and, at the same time, create the basis for a new paradigm of clinical personality diagnosis (Zimmermann et al., 2013).

Despite its relative novelty, criticism of the hybrid model proposed by DSM-5 has already emerged. In a sample of inmates, Sleep, Wygant and Miller (2018) showed that the level of personality functioning contributed to the prediction of borderline personality disorder, narcissistic-type personality disorder, and the interpersonal affective characteristics of psychopathy. Nevertheless, it did not contribute to the prediction of antisocial personality disorder and impulsive-antisocial characteristics of psychopathy. In these cases, personality traits continued to have greater explanatory power.

On the other hand, it should be noted that these results conflict with studies that suggest that the general severity of personality disorder provides additional information above personality traits (Calabrese & Simms, 2014; Hopwood, Thomas, Markon, Wright & Krueger, 2012).

To assess the level of personality functioning, numerous instruments have been developed: the SIPP-118 by Verheul et al. (2008), the General Assessment of Personality Disorder (GAPD) by Hentschel and Livesley (2013), and, in Spanish, the OPS-SQ with 95 items which correspond to 8 subscales (de la Parra et al., 2018) and the Level of Personality Function Scale by Stover and Bruno (2019) with 80 items.

Concerning short instruments with less than 20 items, there are the Inventory of Personality Organization (IPO) by Lenzenweger, Clarkin, Kernberg and Foelsch (2001) in German, and the OPD-SFK in German and English (Ehrenthal et al., 2012, 2015) and, in English, the Level of Personal Functioning Scale - Brief Form 2.0 (LPFS - BF 2.0) by Weekers, Hutsebaut and Kamphuis (2019).

To our knowledge, there is no short questionnaire in Spanish that is specifically oriented to the level of personality functioning of the DSM-5. The existence of an instrument of these characteristics would facilitate not only the possibility of making a first rapid assessment but also the deepening of the investigation of personality disorders through extensive studies that require concise questionnaires. Therefore the objective of the present study was to validate the Level of Personality Functioning Scale - BF 2.0 of Weekers et al. (2019) and, due to the high correlation between the self-functioning and interpersonal functioning dimensions (Bach & Hutsebaut, 2018), to evaluate the factorial structure of the instrument.

Method

Compliance with ethical standards

This research was approved by the Responsible Conduct Committee of the University of Buenos Aires.

Procedure and sample

For data collection, the Google Forms© digital platform was used. On the initial page of the questionnaire, information was provided about the anonymous participation and confidential treatment of the information under Law n.º. 25326. Likewise, the possibility of withdrawing at any time from the research was communicated and, after agreeing to participate through informed consent, the questionnaires were presented. In case the participants had problems or doubts during the answers, the contact email of the researcher was left. The recruitment of the participants was carried out through the social networks of Facebook, Instagram, and WhatsApp, and, to ensure satisfactory completion of the survey, a pilot study with 30 individuals was conducted.

Non-probability and snowball sampling was carried out. The sample was collected between October 2 and November 5, 2020, and consisted of 361 adults (M age = 41.01, SD = 15.58; female = 203) residing in Argentina (30 % from the Autonomous City of Buenos Aires, 22 % from Greater Buenos Aires, 11 % from the Province of Buenos Aires and 38 % from other Argentine provinces). 72 % were of incomplete university level or higher.

Instruments

Level of Personal Functioning Scale - Brief Form 2.0.

The Level of Personality Functioning Scale - Brief Form 2.0 (LPFS - BF 2.0) was developed by Weekers et al. (2019) and evaluates the two dimensions of self-functioning and interpersonal functioning and, through its 12 items, general functioning can be evaluated. To answer, a four-point Likert scale is used, ranging from 1 = *Totally disagree* to 4 = *Totally agree*. Higher scores indicate personality dysfunction. In the original study, the authors obtained internal consistencies between $.82 \geq \alpha \geq .71$.

The translation into Spanish was carried out by three bilingual psychologists and later the reverse translation was carried out. This procedure made it possible to debate the suitability of the translations and thus select those that best adapted to the corresponding items of the original version.

In addition, it should be noted that a four-point Likert scale has not been used, as proposed by the authors of the instrument, but a five-point Likert scale that includes the values 0 = *Totally disagree* to 5 = *Totally agree*. This modification was because, during the pilot study, several participants expressed their desire to mark an intermediate answer.

Mini-IPIP

The Argentine validation of the Mini International Personality Item Pool (Mini-IPIP) was used (Simkin, Borchardt Dutera & Azzollini, 2020). The instrument has 20 items that correspond to 5 personality traits. To answer these items, a five-point Likert scale is used (1 = *Totally disagree* to 5 = *Totally agree*). The authors of the aforementioned study obtained internal consistencies between $0.77 \leq \omega \leq .88$ and, in the present study, these reached the following values: openness to experience ($\omega = .74$), consciousness ($\omega = .77$), extraversion ($\omega = .75$), agreeableness ($\omega = .83$) and neuroticism ($\omega = .75$).

Data analysis

Through the Minimum Covariance Determinant (Leys, Klein, Dominicy & Ley, 2018), the detection of multivariate outliers was carried out. To do this, the MASS package by Venables and Ripley (2002) was used. Verification of multivariate normality was carried out through the Mardia test (Mardia, 1970) and the MVN of Korkmaz, Goksuluk and Zararsiz (2014). With psych (Revelle, 2019), the exploratory factor analysis, the calculation of Hofmann's (1978) complexity indices, the internal consistencies (α and ω), and the partial Spearman correlations were performed. Through lavaan (Rosseel, 2012), the confirmatory factor analysis and measurement invariance were carried out. All these packages are part of the Core Team (2020) R software and, for all calculations, the probability value $p \leq .05$ was used.

Results

Outliers and multivariate normality

23 observations were classified as outliers and excluded from the sample, resulting in 338 individuals (188 female). Through the Mardia test, it was observed that the items did not represent multivariate normality.

Exploratory Factor Analysis

In case of non-compliance with the multivariate normality assumption, Fabrigar, Wegener, MacCallum and Strahan (1999) suggest using the principal axes method for exploratory factor analysis. In addition, a parallel analysis and Oblimin rotation method were used (Costello & Osborne, 2005). The Scree-Plot evaluation justified the extraction of 2 factors, which is in line with the factorial structure proposed by Weekers et al. (2019). Table 1 shows the factor loadings and the complexity indices of the model resulting from the exploratory factor analysis. This model explains 47 % of the variance. As can be seen, items 10 and 11 could be considered critical because their factor loadings are $\leq .50$ (Hair, Black, Babin & Anderson, 2010) and because they have complexity indices that are considerably higher than the others. In addition, item 11 has a higher factor loading on self-functioning than on interpersonal functioning. When comparing these results with those obtained by Bach and Hutsebaut (2018), it was observed that these authors found the same characteristics concerning these items.

Although performing exploratory factor analysis and confirmatory factor analysis on the same sample may lead to overfitting the internal structure (Fokkema & Greiff, 2017), it was decided to continue with the confirmatory factor analysis. This decision was due to the similarity with the factorial structure found by Bach y Hutsebaut (2018), which means that the exploratory factorial analysis of the present study did not find a new factorial structure, but rather reconfirmed the structure already found in a previous study.

Table 1.

Factor loadings and Hofmann's (1978) complexity indices of the model according to the result of the exploratory factor analysis

| Item number | Phrase | SF | IF | HCI |
|-------------|--|------|------|-------|
| LPFS_01 | A menudo, no sé quién soy realmente. | .797 | | 1.002 |
| LPFS_02 | A menudo, pienso de manera muy negativa sobre mí mismo(a). | .934 | | 1.043 |
| LPFS_03 | Mis emociones cambian sin que pueda controlarlas. | .617 | | 1.126 |
| LPFS_04 | No tengo idea qué hacer con mi vida. | .695 | | 1.001 |
| LPFS_05 | A menudo, no entiendo mis propios pensamientos y sentimientos. | .681 | | 1.093 |
| LPFS_06 | A menudo, me impongo exigencias poco realistas. | .587 | | 1.037 |
| LPFS_07 | A menudo, tengo dificultades para entender los pensamientos y sentimientos de otros. | | .701 | 1.018 |
| LPFS_08 | A menudo, encuentro difícil soportarlo cuando otros tienen una opinión diferente a la mía. | | .632 | 1.017 |
| LPFS_09 | A menudo, no entiendo del todo por qué mi comportamiento tiene cierto efecto en otros. | | .586 | 1.025 |
| LPFS_10 | Mis relaciones y amistades nunca duran mucho. | | .286 | 1.292 |
| LPFS_11 | A menudo, me siento muy vulnerable cuando las relaciones se vuelven más personales. | .453 | | 1.527 |
| LPFS_12 | A menudo, no logro cooperar bien con otros de una manera que sea satisfactoria para ambos. | | .588 | 1.027 |

Notes: n = 338; SF, self-functioning; IF, interpersonal functioning; HCI, Hofmann's (1978) complexity indices.

Confirmatory factor analysis

Two models were initially evaluated: the LPFS-BF 2.0 - Original represents the factorial structure proposed by Weekers et al. (2019) and the LPFS-BF 2.0 - EFA the model according to the result of the exploratory factor analysis.

Due to non-compliance with the assumption of multivariate normality, the adjusted S-B χ^2 indices of Satorra and Bentler (2000) were used to evaluate the models, since they use a robust standard error (Yu, 2002). Following the suggestions of Hu and Bentler (1999), the following values represent an adequate model fit: $\chi^2 / df \leq 3$, RMSEA $\leq .06$, SRMR $\leq .08$, CFI $\geq .95$, TLI $\geq .95$. Considering these values, it can be seen in Table 2 that the model resulting from the exploratory factor analysis obtained the most favorable fit indices. Even so, it was noted that, except for the SRMR, all the indices were below the values suggested by Hu and Bentler (1999).

Table 2.
Fit indices of the competing models

| Competing models | χ^2_{MLM} | df | χ^2/df | Scaling | p | RMSEA (90% CI) | SRMR | CFI | TLI |
|------------------------|----------------|----|-------------|---------|-------|-----------------------|-------|-------|-------|
| LPFS-BF 2.0 – Original | 180.291 | 53 | 3.402 | 1.227 | 0.000 | 0.093 (0.079 - 0.109) | 0.063 | 0.903 | 0.879 |
| LPFS-BF 2.0 – EFA | 162.677 | 53 | 3.069 | 1.202 | 0.000 | 0.086 (0.071 - 0.101) | 0.055 | 0.918 | 0.898 |

Notes: $n = 338$; χ^2_{MLM} - Chi-square using the maximum likelihood method with robust standard errors (MLM); df, degrees of freedom; Scaling, adjustment factor of the Satorra-Bentler correction; RMSEA, root mean squared error of approximation; SRMR, standardized root mean squared residual, CFI, comparative fit index; TLI, Tucker Lewis Index.

Item reduction

To carry out a measurement purification and obtain acceptable fit indices, the correlations of the standardized residuals were analyzed. According to the suggestions of Hair et al. (2010), those items that exhibit many standardized residuals of $> |4.00|$ with other items can be considered critical. In addition, these authors suggest a careful review of those items with many standardized residuals between $|2.00|$ and $|4.00|$ with others. As a result, items 2, 6, 10, and 11 were eliminated, so the final version comprised 8 items, that is, 4 for each factor.

Following the second objective of the study, three factorial structures were contrasted: with 2 correlated factors (self-functioning and interpersonal functioning) (LPFS-BF 2.0 - 8), with a single general functioning factor (LPFS-BF 2.0 - 8 SF), and with a bifactorial structure (LPFS-BF 2.0 - 8 BI), which independently evaluates the 2 mentioned factors and, simultaneously, the general functioning. Figure 1 represents the three models that were evaluated.

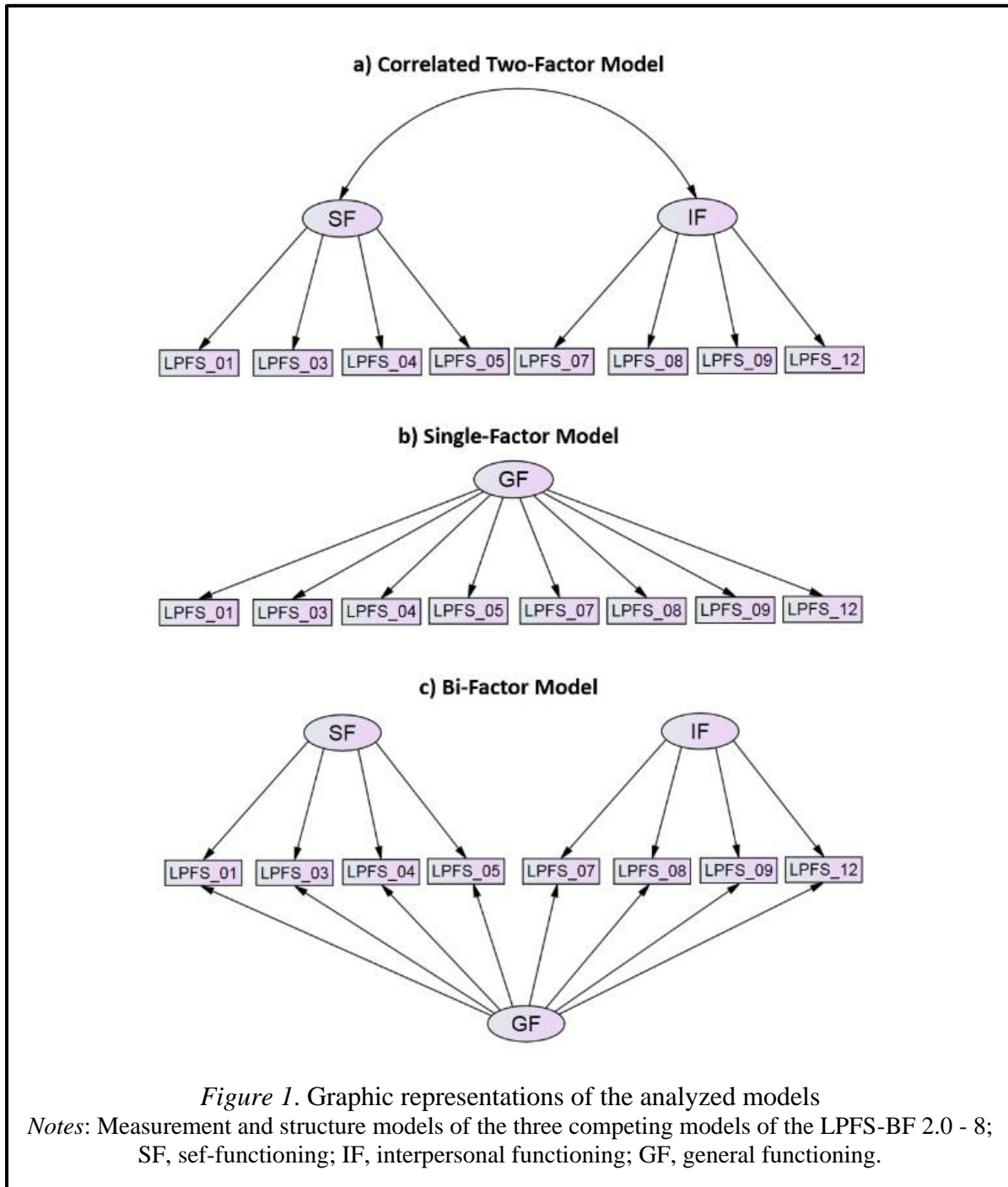


Table 3 represents the fit indices of the three models with 8 items. On the one hand, it can be observed that the Single-Factor Model obtained the lowest values and, on the other hand, that all the indices of the Correlated Two-Factor Model and the Bi-Factor Model were found within adequate ranges according to the indications of Hu and Bentler (1999). Likewise, the results indicate a slight superiority of the Bi-Factor Model.

Table 3.
Fit indices of the competing models

| Competing models | χ^2_{MLM} | df | χ^2/df | Scaling | p | RMSEA (90% CI) | SRMR | CFI | TLI |
|-----------------------|----------------|----|-------------|---------|-------|-----------------------|-------|-------|-------|
| LPFS-BF 2.0 – 8 | 28.702 | 19 | 1.511 | 1.203 | 0.071 | 0.043 (0.000 - 0.073) | 0.031 | 0.987 | 0.981 |
| LPFS-BF 2.0 – 8 SF | 128.173 | 20 | 6.409 | 1.269 | 0.000 | 0.143 (0.120 - 0.167) | 0.090 | 0.851 | 0.792 |
| LPFS-BF 2.0 – 8 BI | 15.916 | 12 | 1.326 | 1.187 | 0.195 | 0.034 (0.000 - 0.074) | 0.020 | 0.995 | 0.988 |

Notes: n = 338; χ^2 MLM - Chi-square using the maximum likelihood method with robust standard errors (MLM); df, degrees of freedom; Scaling, adjustment factor of the Satorra-Bentler correction; RMSEA, root mean squared error of approximation; SRMR, standardized root mean squared residual, CFI, comparative fit index; TLI, Tucker Lewis Index.

To evaluate the internal consistencies of all the analyzed models, the Cronbach's alphas (α) and the omega coefficients (ω) were calculated. According to the content of Table 4, it can be stated that the short version obtained values that are within acceptable ranges (Dunn, Baguley & Brunsten, 2014; Hinton, McMurray & Brownlow, 2014). Finally, it should be noted that the internal consistencies of the general functioning were not calculated for the original model, the model according to the result of the exploratory factor analysis, and neither for the brief instrument with two correlated factors since their factorial structures do not represent a global factor.

Table 4.
Internal consistencies of all models analyzed

| Competing models | α | | | | ω | | | |
|------------------------|----------|-------|-------|------------------|----------|-------|-------|------------------|
| | SF | IF | GF | Mean of α | SF | IF | GF | Mean of ω |
| LPFS-BF 2.0 – Original | 0.882 | 0.747 | - | 0.815 | 0.923 | 0.836 | - | 0.880 |
| LPFS-BF 2.0 – EFA | 0.883 | 0.717 | - | 0.800 | 0.906 | 0.751 | - | 0.829 |
| LPFS-BF 2.0 – 8 | 0.844 | 0.739 | - | 0.792 | 0.861 | 0.742 | - | 0.802 |
| LPFS-BF 2.0 – 8 SF | - | - | 0.835 | 0.835 | - | - | 0.885 | 0.885 |
| LPFS-BF 2.0 – 8 BI | 0.844 | 0.739 | 0.835 | 0.819 | 0.861 | 0.742 | 0.885 | 0.835 |

Notes: n = 338; SF, self-functioning; IF, interpersonal functioning; GF, general functioning; α , Cronbach's alphas; ω , omega coefficients.

Convergent validity

First, age associations with the three dimensions of the LPFS-BF 2.0 - 8 BI were evaluated. Regarding female participants, age had low correlations with self-functioning ($r_s = -.283$, $p < .001$) and with general functioning ($r_s = -.162$, $p = .027$). On the other hand, the male participants showed similar correlations: with self-functioning ($r_s = -.325$, $p < .001$) and with general functioning ($r_s = -.219$, $p = .007$).

Next, convergent validity analysis was performed with the 5 dimensions of the Mini-IPIP. Partial Spearman correlations were calculated and, to evaluate possible differences between genders, age, and educational level were used as control variables. The results of this analysis can be seen in Table 5. Regarding the most significant differences between genders, the negative relationship between consciousness and interpersonal functioning stands out, since it is less pronounced within the male participants and, on the other hand, the negative association between extraversion and self-functioning, because it has a smaller effect size within the female participants. Following the classification of Cohen (1988), only one association with a large effect size was found: within the female gender, between self-functioning and neuroticism. The other correlations exhibited small and medium effect sizes.

Table 5.

Spearman's partial correlations between the dimensions of the final 8-item model and the Mini-IPIP, controlling for age and educational level

| Variables | Female | | | Male | | |
|-------------------|---------|---------|---------|---------|---------|---------|
| | SF | IF | GF | SF | IF | GF |
| O - Openness | -.242** | -.337** | -.323** | -.178* | -.334** | -.281** |
| C - Consciousness | -.246** | -.292** | -.326** | -.286** | -.153* | -.258** |
| E - Extraversion | -.099 | -.129* | -.148* | -.238** | -.151* | -.236** |
| A - Agreeableness | -.180** | -.475** | -.365** | -.189* | -.388** | -.319** |
| N - Neuroticism | .550** | .272** | .494** | .454** | .280** | .450** |

Notes: $n = 338$; female = 188; male = 150; ** The correlation is significant at the 0.01 level (bilateral); * The correlation is significant at the 0.05 level (bilateral); SF, self-functioning; IF, interpersonal functioning; GF, general functioning.

Measurement invariance

Subsequently, a multigroup analysis by gender was performed. In M2, factor loadings between the two groups were constraint to be equal, in M3 the factor loadings and intercepts and, in M4, factor loadings, intercepts, and residuals. As can be seen in Table 6, the changes in the fit indices were found within adequate ranges with $|\Delta CFI| \leq 0.010$ according to Cheung and Rensvold (2002), and even concerning the changes of χ^2 MLM, no significant differences have been found. According to these results, we can affirm that the instrument represents factorial invariance concerning genders, which means that, regardless of the participant's gender, the instrument evaluates the same construct.

Table 6.

Model fit and model comparison testing for measurement invariance of the Bi-Factor Model regarding gender

| Model | Model fit | | | | | Model comparison | | | | |
|-------------------|--------------------|----|-------------|---------|-------|-----------------------------|-------------|-------|--------------|--|
| | S-B χ^2_{MLM} | df | χ^2/df | Scaling | CFI | Δ S-B χ^2_{MLM} | Δ df | p | Δ CFI | |
| M1: Configural | 19.686 | 24 | 0.820 | 1.216 | 1.000 | | | | | |
| M2: Weak | 35.106 | 37 | 0.949 | 1.184 | 1.000 | 15.420 | 13 | 0.282 | -0.000 | |
| M3: Strong | 38.339 | 42 | 0.913 | 1.179 | 1.000 | 03.233 | 5 | 0.664 | -0.000 | |
| M4: Strict | 52.727 | 50 | 1.055 | 1.169 | 0.997 | 14.388 | 8 | 0.072 | -0.003 | |

Notes: n = 338; female = 188; male = 150; χ^2 MLM - Chi-square using the maximum likelihood method with robust standard errors (MLM); df, degrees of freedom; Scaling, adjustment factor of the Satorra-Bentler correction; CFI, comparative fit index.

Descriptive statistics

Table 7 shows the descriptive statistics of the final model according to gender. Concerning the index of acceptable limits of skewness and kurtosis of ± 2 (Hinton et al., 2014), it can be stated that all the items have a slight to moderate positive bias, but there are no extreme outliers in the sample (maximum skewness = 1.202, maximum kurtosis = -1.019).

Table 7.

Descriptive statistics of the final model

| Factor | Item | Female | | | | | Male | | | | |
|---------------------------|---------|--------|-------|-------|-------|----------|-------|-------|-------|-------|----------|
| | | M | SD | Mdn | Skew | Kurtosis | M | SD | Mdn | Skew | Kurtosis |
| Self-functioning | | | | | | | | | | | |
| | LPFS_01 | 1.021 | 1.114 | 1.000 | 0.836 | -0.272 | 1.127 | 1.255 | 1.000 | 0.896 | -0.268 |
| | LPFS_03 | 1.596 | 1.235 | 1.000 | 0.306 | -0.965 | 1.360 | 1.177 | 1.000 | 0.482 | -0.748 |
| | LPFS_04 | 0.947 | 1.117 | 1.000 | 1.202 | -0.798 | 1.153 | 1.252 | 1.000 | 0.874 | -0.300 |
| | LPFS_05 | 1.282 | 1.184 | 1.000 | 0.677 | -0.441 | 1.267 | 1.251 | 1.000 | 0.634 | -0.736 |
| Interpersonal Functioning | | | | | | | | | | | |
| | LPFS_07 | 0.915 | 0.955 | 1.000 | 0.828 | -0.120 | 1.307 | 1.111 | 1.000 | 0.489 | -0.717 |
| | LPFS_08 | 1.383 | 1.153 | 1.000 | 0.472 | -0.646 | 1.440 | 1.156 | 1.000 | 0.314 | -0.863 |
| | LPFS_09 | 1.330 | 1.146 | 1.000 | 0.439 | -0.669 | 1.567 | 1.223 | 1.000 | 0.273 | -1.019 |
| | LPFS_12 | 0.947 | 1.001 | 1.000 | 0.646 | -0.678 | 1.220 | 1.086 | 1.000 | 0.621 | -0.573 |

Notes: n = 338; female = 188; male = 150; M, Mean; SD, standard deviation; Mdn, Median.

Discussion

In order to adapt the Level of Personality Functioning Scale - Brief Form 2.0, an exploratory factor analysis, an item reduction, a confirmatory factor analysis of several factor structures, a convergent validity analysis, and a multigroup analysis to determine measurement invariance by gender were performed.

According to the cutoff values that Hu y Bentler (1999) suggest, it was observed that these were not found in adequate ranges, so several items had to be eliminated. After the measurement purification, all fit indices showed satisfactory values, which evidences the validity of the adapted instrument. Likewise, the results of the multigroup analysis confirm that the instrument assesses, regardless of the participant's gender, the same construct. This result facilitates the possibility of using this scale in future research that aims to determine group differences (Byrne, 2016). On the other hand, it is important to mention that all the fit indices, which were obtained in the present study, represent a minimal discrepancy between the hypothesized model and the observed data since residual covariances between the items have not been used.

Even so, it should be noted that the same sample was used for the exploratory factor analysis and the confirmatory factor analysis. Although this procedure may lead to the reduction of confirmatory power (Fokkema & Greiff, 2017), it is important to mention that the exploratory factor analysis of the present study showed the same results that Bach and Hutsebaut (2018) obtained, meaning that it did not find a new factor structure, but rather reconfirmed an already established structure.

The second objective of this study was to analyze the factorial structure of the instrument and, according to the fit indices found, it was determined that it has a bifactorial structure. It is important to mention this finding since it allows not only the use of its two factors, self-functioning, and interpersonal functioning, but also the general functioning factor (Reise, Moore & Haviland, 2010). Likewise, it was noted that the convergent validity analysis showed significant associations between these dimensions and all personality traits, which is in line with previous studies (Hopwood, Good & Morey, 2018; McCabe & Widiger, 2020).

Although the adapted version of the Level of Personality Functioning Scale - Brief Form 2.0 shows adequate psychometric values, it should be emphasized that these were obtained through an item reduction, therefore it comprises only 8 items and not 12 like the English version. Already in the original study of the first version of the instrument, Hutsebaut, Feenstra, and Kamphuis (2016) found difficulties with certain items, so a later study by Weekers et al. (2019) resorted to the use of a residual covariance and a cross-loading, meaning that the authors assigned an item, simultaneously, to two factors. Despite these measures, the authors could not reach the values proposed by Hu and Bentler (1999).

On the other hand, it is emphasized that the present adapted version resorted to the use of a five-point Likert scale, although the authors of the original instrument had used a four-point Likert scale. This decision was because, during the pilot study, several participants had expressed their desire to score an intermediate answer option. At this point, it should be noted that Garland (1991) showed that social desirability bias can be reduced by eliminating the midpoint of a Likert scale and that retaining it could distort the results. On the other hand, eliminating the neutral point also introduces a forced choice in the scale (Allen & Seaman,

2007), since a respondent could be imposed to declare a position instead of remaining neutral, which may not be desirable in some sensitive and political cases (Leung, 2011). Regarding the psychometric properties, Leung (2011) found no differences regarding the use or non-use of a neutral point. In this way, it was observed in the present study that all psychometric values were found in acceptable ranges. In addition, the descriptive statistics showed that the decision to use a 5-point Likert scale does not appear to have caused a possible bias towards the intermediate options, since the means and medians were significantly below the neutral point.

In addition, the following limitations should be observed: The sample size of the present study can be considered relatively small. Due to non-probability sampling, it should also be considered that the values of the descriptive statistics are not representative, so they should not be used to draw certain conclusions. Likewise, the sample was taken during the restrictions of the COVID-19 pandemic, which may have influenced the values obtained. Finally, it is mentioned that only personality traits were used for the convergent validity analysis and that a longitudinal study was not carried out to report the corresponding indices to a Test-Retest.

These circumstances lead to the need for future studies to be able to consolidate the reliability and bifactorial structure of the instrument and to be able to predict other constructs, such as certain symptoms or personality disorders that could be of interest.

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