

# **ASSOCIATION BETWEEN THE FIVE FACTOR PERSONALITY DIMENSIONS AND PSYCHOPATHOLOGY SYMPTOMS**



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## **ABSTRACT**

The 53-item Brief Symptom Inventory (BSI-53), a shorter version of the revised version of the Symptom Checklist-90 (SCL-90-R), is a widely used questionnaire that measures the internalizing symptoms of depression, phobic anxiety and obsession-compulsion, as well as the externalizing symptom of hostility/aggression, the idea thought disorder of paranoid ideation and also somatization, in addition to the Global Scale Severity Index (GSI). The aim of the present study was to examine the relationship between the five-factor model (FFM) personality dimensions and the 46-item Spanish version of the BSI (BSI-46) scales. A sample of 76 participants answered the Spanish version of the Big Five Personality Trait Questionnaire (BFPTSQ) and the Spanish BSI-46. The measures were administered online using the application Qualtrics. We hypothesized that (a) emotional stability would be mainly related to internalizing disorders, paranoid ideation, somatization and, to a lesser extent, hostility/aggression; (b) (low) agreeableness (antagonism) would be related to hostility/aggression; (c) introversion would be related to depression and obsessive-compulsive symptoms; (d) openness would be associated with the symptoms of paranoid ideation; and (e) the GSI would be related to emotional stability, antagonism, (low) conscientiousness and introversion. As predicted, emotional stability (low neuroticism) was related to all scales of psychological disorders. Antagonism was related to hostility/aggression. Introversion was related to symptoms of depression but, contrary to what we had hypothesized, it was not associated with obsessive-compulsive symptoms. Although it was predicted that openness would be associated with paranoid ideation symptoms, the results did not confirm this hypothesis. Finally, the GSI only showed association with emotional stability, although we expected it to be related to antagonism, (low) conscientiousness and introversion. Taking into account the results, we may conclude that the personality dimensions of the FFM are relevant in relation to psychopathological symptoms.

## RESUMEN

El Inventario Breve de Síntomas de 53 ítems (BSI-53), una versión más corta de la versión revisada de la Symptom Checklist-90 (SCL-90-R), es un cuestionario ampliamente utilizado que mide los síntomas internalizantes de depresión, ansiedad fóbica y obsesión-compulsión, así como el síntoma externalizante de hostilidad/agresión, el trastorno del pensamiento ideación paranoide y también la somatización, además del índice de gravedad global (GSI). El objetivo del presente estudio fue examinar la relación entre las dimensiones de personalidad del modelo de cinco factores y la versión española de 46 ítems de las escalas BSI (BSI-46). Una muestra de 76 participantes contestó la versión española del cuestionario de los cinco factores de personalidad (BFPTSQ) y el BSI-46 en español. Las escalas fueron administradas online utilizando la aplicación Qualtrics. Nuestras hipótesis eran que (a) la estabilidad emocional estaría relacionada principalmente con los trastornos de internalización, la ideación paranoide, la somatización y, en menor medida, la hostilidad/agresión; (b) la (baja) amabilidad (antagonismo) estaría relacionada con la hostilidad/agresividad; (c) la introversión estaría relacionada con la depresión y los síntomas obsesivos-compulsivos; (d) la apertura estaría asociada con los síntomas de la ideación paranoide; y (e) el GSI estaría relacionado con la estabilidad emocional, antagonismo, la (baja) responsabilidad y la introversión. Como se predijo, la estabilidad emocional (bajo neuroticismo) se relacionó con todas las escalas de trastornos psicológicos. El antagonismo estaba relacionado con la hostilidad/agresión. La introversión estaba relacionada con los síntomas de la depresión pero, contrariamente a lo que habíamos hipotetizado, no estaba asociada con los síntomas obsesivo-compulsivos. Aunque se predijo que la apertura estaría asociada con los síntomas de la ideación paranoide, los resultados no confirmaron esta hipótesis. Finalmente, el GSI solo mostró asociación con la estabilidad emocional, aunque esperábamos que estuviera relacionado con el antagonismo, (baja) responsabilidad e introversión. Teniendo en cuenta los resultados, podemos concluir que las dimensiones de personalidad del Modelo de Cinco Factores son relevantes en relación con los síntomas psicopatológicos.

**INTRODUCTION**

The revised version of the Symptom Checklist-90 (SCL-90-R; Derogatis 1994) is one of the most widely used questionnaires for the evaluation of psychopathological symptoms grouped into nine dimensions. However, it is a very long questionnaire, which hinders its administration. For this reason, shorter versions were developed such as the Brief Symptom Inventory of 53 items (BSI-53, Derogatis 1993), which also evaluates the nine dimensions, and the 18-item one (BSI-18, Derogatis 2000). The latter only measures the three factors of somatization, depression and anxiety, along with the Global Scale Severity Index (GSI). In addition, one of the Spanish versions of the BSI (BSI-46; Rupi rez et al., 2001) measures the internalizing symptoms of depression, phobic anxiety and obsession-compulsion, as well as the externalizing symptom of hostility/aggression, the idea thought disorder of paranoid ideation and also somatization (Kotov et al., 2017), in addition to the GSI. Previous studies (Mezquita et al., 2015) have explored the association between the five dimensions of personality (McCrae & Costa, 2010) and the internalizing and externalizing psychopathological factors. Neuroticism (low emotional stability) is related to internalizing symptoms, and (low) agreeableness and (low) responsibility are associated with externalizing symptoms. Neuroticism can also correlate with the externalizing factor. As far as we know, there are no previous studies that relate the five-factor model of personality (FFM) to the BSI scales. The aim of the present study was to examine the relationship between the five broad domains of the FFM and the BSI-46 scales.

**Hypothesis:**

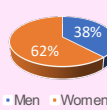
1. Emotional stability (low neuroticism) would be mainly related to internalizing disorders (depression, phobic anxiety, obsession-compulsion), paranoid ideation, somatization and, to a lesser extent, hostility/aggression. 2. Low agreeableness would be related to hostility/aggression. 3. Introversion would be related to depression and obsessive-compulsive symptoms. 4. Openness would be associated with the symptoms of paranoid ideation. 5. The GSI would be related to emotional stability, low agreeableness, low conscientiousness and introversion.

**METHOD**

**Participants**

Seventy-six participants, of which forty-eight were women and twenty-nine were men. Age range 18-59 years, the mean age was 29 (SD = 11.80) years.

**Gender**



**Measures**

The Big Five Personality Trait Questionnaire (BFPTSQ; Ortet et al., 2017), and the Spanish version of the Brief Symptom Inventory-46 (BSI-46; Rupi rez et al., 2001).

**Procedure**

The questionnaires were administered online using the application Qualtrics.

**DISCUSSION**

The aim of the present study was to examine the relationship between the five personality dimensions and the BSI-46 scales. As we hypothesized, emotional stability (low neuroticism) was related to all scales of psychological disorders. Low agreeableness was related to hostility/aggression. Introversion was related to symptoms of depression but, contrary to what we had predicted, it was not associated with obsessive-compulsive symptoms. Although it was predicted that openness would be associated with paranoid ideation symptoms, the results did not confirm this hypothesis. Finally, the GSI only showed association with emotional stability, although we expected it to be related to (low) agreeableness, (low) conscientiousness and introversion. Taking into account the results, we may conclude that the personality dimensions of the FFM are relevant in relation to psychopathological symptoms.

	I.D	II. PA	III. PI	IV. OC	V. S	VI. H/A	GSI
I. Depression							.84***
II. Phobic anxiety	.52***						.74***
III. Paranoid ideation	.69***	.60***					.89***
IV. Obsession-compulsion	.76***	.64***	.79***				.92***
V. Somatization	.53***	.55***	.57***	.65***			.76***
VI. Hostility/aggressivity	.46***	.51***	.63***	.62***	.52***		.72***
Openness	.04	.06	-.10	-.13	.01	-.11	-.05
Extraversion	-.27*	-.14	-.25*	-.25*	-.16	-.16	-.27*
Agreeableness	-.19	-.10	-.11	-.11	-.20	-.34**	-.20
Conscientiousness	-.21	-.04	-.02	-.18	-.10	-.14	-.14
Emotional stability	-.55***	-.35**	-.63***	-.52***	-.45***	-.36**	-.61***

Dependent variables		ΔR <sup>2</sup>	β
I. Depression		.43	
	Extraversion		-.24*
	Emotional stability		-.58***
II. Phobic anxiety		.20	
	Emotional stability		-.39**
III. Paranoid ideation		.40	
	Emotional stability		-.67***
IV. Obsession-compulsion		.31	
	Conscientiousness		-.25*
	Emotional stability		-.51***
V. Somatization		.32	
	Emotional stability		-.48***
VI. Hostility/aggressivity		.22	
	Agreeableness		-.26*
	Emotional stability		-.35**
General Severity Index (GSI)		.44	
	Emotional stability		-.63***

**Table 1.** Intercorrelations of the BSI Scales and Correlations between BSI and BFPTSQ Scales.

\* p < .05. \*\* p < .01. \*\*\* p < .001.

**Table 2.** Multiple Linear Regression Analyses for the BSI Scales in Function of the Openness, Extraversion, Agreeableness, Conscientiousness, and Emotional Stability Scales of the BFPTSQ.

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