

# ■ Validity evidence of the Penn State Worry Questionnaire-Children in Colombian Children

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## Abstract

Worry is the main characteristic of generalized anxiety disorder (GAD), a psychological disorder whose prevalence is high worldwide in adults, adolescents, and children. In fact, the onset of worry symptoms may occur during the first years of life. Despite this, there are fewer studies in children than in adolescents and adults. The Penn State Worry Questionnaire for Children (PSWQ-C) is a widely researched instrument that measures GAD pathological worry. It comprises 14 items, 11 direct and three reverse-scored items. This study translated the PSWQ-C into Spanish and analyzed its psychometric properties in a Colombian sample of 585 children aged 8 to 12 (52.3% male,  $M = 10.35$   $SD = 1.25$ ). As in previous studies, the three reverse-scored items showed low discrimination indexes and were eliminated. The internal consistency of the resulting 11-item version of the PSWQ-C was good (Cronbach's  $\alpha = .88$ , McDonald's  $\omega = .88$ ). The one-factor model showed a very good fit to the data (RMSEA = 0.04, CFI = 0.98, NNFI = 0.97, SRMR = 0.02) and showed scalar measurement invariance across gender, groupage, and schools. The PSWQ-C showed discriminant validity in relation to measures of repetitive negative thinking and anxiety symptoms, and convergent validity given theoretically coherent correlations with other instruments. Boys showed lower PSWQ-C scores than girls. The Spanish version of the PSWQ-C demonstrated good psychometric properties in the Colombian child population, which benefits the detection of worry symptoms in the country.

*Keywords:* Penn State Worry Questionnaire for Children; Worry; Children; Generalized anxiety disorder; Measurement invariance.

## Resumen

*Evidencias psicométricas del Penn State Worry Questionnaire-Children en niños colombianos.* La preocupación es la característica principal del trastorno de ansiedad generalizada (TAG), un trastorno psicológico cuya prevalencia es alta en todo el mundo en adultos, adolescentes y niños. De hecho, el inicio de los síntomas de preocupación puede darse durante los primeros años de vida. A pesar de esto, existen menos estudios en población infantil que en población adolescente y adulta. El Penn State Worry Questionnaire for Children (PSWQ-C) es un instrumento ampliamente investigado que mide la preocupación patológica del TAG. Consta de 14 ítems, 11 directos y tres de puntuación inversa. Este estudio tradujo el PSWQ-C al español y analizó sus propiedades psicométricas en una muestra colombiana de 585 niños de 8 a 12 años (52.3% hombres,  $M = 10.35$ ,  $DE = 1.25$ ). Al igual que en estudios anteriores, los tres ítems de puntuación inversa mostraron bajos índices de discriminación y fueron eliminados. La consistencia interna de la versión resultante de 11 ítems del PSWQ-C fue buena (alfa de Cronbach = .88, omega de McDonald = .88). El modelo de un factor mostró un muy buen ajuste a los datos (RMSEA = 0,04, CFI = 0,98, NNFI = 0,97, SRMR = 0,02) y mostró invarianza de medida escalar a través de género, grupo y escuelas. El PSWQ-C mostró validez discriminante en relación con medidas de pensamiento negativo repetitivo, síntomas de ansiedad y validez convergente dadas las correlaciones teóricamente coherentes con otros instrumentos. Los niños mostraron puntuaciones más bajas en el PSWQ-C que las niñas. La versión en español del PSWQ-C demostró buenas propiedades psicométricas en población infantil colombiana, lo cual beneficia la detección de los síntomas de preocupación en el país.

*Palabras clave:* Penn State Worry Questionnaire for Children; Preocupación; Niños; Trastorno de Ansiedad Generalizada; Invarianza de medida.

Worry refers to the feeling of uncertainty and a chain of negative thoughts about the possible occurrence of undesired future events (Sibrava & Borkovec, 2006). It has an adaptive function (Wahlund et al., 2020) and seeks to keep the physiological response associated with a triggering event under control (Borkovec et al., 2004). It is estimated that the onset of worry may occur at an early

age, around five years old, although there is little information on this topic (Chorpita et al., 1997; Costello et al., 2005; Goncalves & Byrne, 2013; Köcher et al., 2021; Muris et al., 2002). When worry persists and generates recurrent distress, despite the low probability of occurrence of related catastrophic events, it becomes pathological (Hirsch & Mathews, 2012).

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Pathological worry can be defined as an excessive and disproportionate manifestation that remains most of the time and significantly interferes with the individual's functioning, causing feelings of distress (Songco et al., 2020). It presents a chain of negative affect-laden and relatively uncontrollable thoughts and images (Behar et al., 2005; Borkovec et al., 1983; Stöber et al., 2000), and is maintained in an attempt by the individual to solve a future problem (Hirsch & Mathews, 2012; McNelly & Dunlop, 2016; Sweeny & Dooley, 2017). Despite this, the individuals usually do not plan a solution to the event that is overwhelming them but often repeat to them that things will get worse (Davey, 2006; Ottaviani et al., 2014; Rucio & Borkovec, 2004). Worry is the main symptom of generalized anxiety disorder (GAD) in children and adults (Brosschot et al., 2016), although it is also common in other emotional disorders such as panic disorder, social phobia, obsessive-compulsive disorder, separation anxiety disorder, agoraphobia, post-traumatic stress disorder, and depression (Ehring & Behar, 2020; Hanrahan et al., 2013; Papageorgiou, 2006).

Worry is usually measured with self-report instruments. The most used instrument to assess pathological worry related to GAD is the Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990). The PSWQ evaluates the general tendency to engage in worry without referring to specific domains. This questionnaire has been validated in different languages (e.g., Sandín et al., 2009; Verkvil & Brosschot, 2012).

The PSWQ has also been adapted for children (PSWQ-C; Chorpita et al., 1997). The PSWQ-C consists of 14 items, with 11 direct and three reverse-scored items. The instrument has shown good internal consistency, test-retest reliability, and a one-factor structure in clinical and nonclinical samples (Chorpita et al., 1997; Liu & Zhong, 2020). As expected, the PSWQ-C has presented higher discriminant validity for GAD symptoms than for other anxiety disorders (Chorpita et al., 1997). Additionally, it has been employed as an outcome measure in clinical trials (e.g., Wahlund et al., 2020), demonstrating sensitivity to the effect of psychological interventions.

The PSWQ-C has been translated into French (Gosselin, et al., 2002), Dutch (Muris et al., 2001), Danish (Esbjörn et al., 2013), Italian (Benedetto et al., 2019), Romanian (Păsărelu et al., 2017), Korean (Kang et al., 2010), and Chinese (Liu & Zhong, 2020). In some of these languages, the three reverse-scored items have generated problems regarding internal consistency and factor structure (Kang et al., 2010; Muris et al., 2001). This has led the authors to eliminate the reverse-scored items. These findings have been similar to those found in the PSWQ for the adult population (Carter et al., 2005; Olatunji et al., 2007; Ruiz et al., 2018; Sandín et al., 2009). Despite the problems found with the three reverse-scored items, the PSWQ-C has demonstrated good psychometric functioning across languages and cultures. Further, the one-factor structure of the PSWQ-C has shown to be invariant across age, gender, and clinical samples in Romanian (Păsărelu et al., 2017). However, factor equivalence analyses in other languages are lacking.

The prevalence of anxiety disorders in children is high, with a worldwide prevalence for any anxiety disorder of 6.5% (Polanczyk et al., 2015). Specifically, GAD is one of the most prevalent disorders in children, with a prevalence range between 5 and 20% (Zygouris et al., 2022). Accordingly, it is necessary to develop or adapt worry measures for each language. Currently, there is no validation of the PSWQ-C in Spanish; therefore, this study aims to translate and analyze the psychometric properties of this questionnaire in Colombian children. In so doing, we recruited a large sample of 585 participants and performed analyses of internal consistency, factor structure, measurement invariance, and convergent and discriminant validity.

## Method

### Participants

The sample consisted of a total of 585 participants (52.3% male), aged between 8 and 12 years ( $M = 10.35$   $SD = 1.25$ ), with low economic resources, attending public schools in the department of Boyacá in Colombia. A total of 63.34% were in elementary school, and 36.75% were in middle school. The inclusion criteria for participation were to have their own authorization and that of their parents or legal guardian, to be between 8 and 12 years old and to be able to read. One criterion for exclusion from the study was that a child decided not to participate.

### Procedure

The procedure for this study was presented to the institutional bioethics committee, where aspects of informed consent and the need for parents or legal guardians to authorize participation were discussed, since minors were involved. Likewise, it was explained that the authorization of the schools where the participants study would be required. The ethics committee delivered and once their approval was obtained, the study was initiated.

We obtained the corresponding author's approval (i.e., B. Chorpita) for translating the PSWQ-C into Spanish. The translation was conducted according to the guidelines of the International Test Commission for adapting instruments across cultures (Muñiz et al., 2013). Thus, an iterative procedure was implemented with two independent forward translations conducted by bilingual individuals that were revised by a committee consisting of the two previous translators and two experts on the topic. As suggested by Muñiz et al. (2013), we then conducted a small pilot test to explore item comprehension with approximately 20 Colombian children who were receiving psychological therapy. These children and their parents previously signed an informed consent. The items' translation is presented in Table 1.

Two public schools and one private school from Tunja, the main city of Boyacá, were contacted to explain the study's aim and procedures. The selection of schools was carried out by convenience according to their previous experience with similar research several years ago, personal contacts, and the distance from the first author's residence. The two public schools provided authorization to conduct the study, whereas the private school did not respond to the proposal. Subsequently, informed consents were sent to the parents with information about the study, including the purpose, procedure description, retribution and benefits of participation, possible risks and discomfort, confidentiality, and voluntary participation. Children who provided consent signed by their parents or legal guardians were invited to an evaluation session in the school auditorium. A similar informed consent form was given to the children, and the questionnaire package was provided for those who chose to participate freely and signed the consent.

The total number of parents invited to the study was 850, of whom 76.47% consented to their children's participation. Of these, 90% of the children participated by signing informed consent. The remaining 10% did not enter the study because they moved to another city or educational institution (8%) or because they did not consent to participate (2%). All participants completed a questionnaire package that included the questionnaires listed above and a sociodemographic form. Information about the child's results was sent to the interested parents as compensation for participation.

## Instruments

**Penn Worry State Questionnaire – Children (PSWQ-C;** Chorpita et al., 1997). The PSWQ-C is a self-report measure of general aspects of pathological worry in children and adolescents. It is composed of 14 items answered on a 4-point Likert-type scale (0 = *never true*; 3 = *always true*), 11 direct-scored items, and three reverse-scored items. The PSWQ-C obtained an internal consistency of 0.89, has shown a one-factor structure, and high discriminant and convergent validity. Despite this, the three reverse-scored items have generated difficulties in the internal consistency and factor structure of the instrument in some studies (e.g., Kang et al., 2010; Muris et al., 2001).

**Depression Anxiety Stress Scale - Youth (DASS-Y;** Szabo & Lovibond, 2022; Spanish version by Ruiz et al., submitted). The DASS-Y is a self-report instrument comprising 21 items that are responded to on a 4-point Likert-type scale (0 = *not true*; 3 = *very true*). The DASS-Y assesses the affective state of the participants in the dimensions of depression, anxiety, and stress. The DASS-Y has shown the expected three-factor structure and appropriate indicators of internal consistency (between .77 and .81) in the Colombian child population.

**Perseverative Thinking Questionnaire - Children (PTQ-C;** Bijttebier et al., 2015; Spanish version by Ruiz et al., 2020). The PTQ-C self-report instrument measures repetitive negative thinking (RNT). It comprises 15 items that are responded to on a 5-point Likert-type scale (0 = *never*; 4 = *almost always*). Higher scores indicate higher levels of RNT. The PTQ-C has shown excellent internal consistency, a one-factor structure that was invariant across gender and groupage, and convergent validity (Ruiz et al., 2020).

**Revised Child Anxiety and Depression Scale – 30 (RCADS-30;** Sandín et al., 2010). The RCADS-30 is a screening measure for anxiety disorders and depression in children and adolescents. It comprises 30 items that are responded to on a 4-point Likert-type scale (0 = *never*; 3 = *always*). The RCADS-30 was initially validated in Spanish by Sandín et al. (2010) and has six subscales, each with five items: panic disorder, social phobia, separation anxiety disorder, GAD, obsessive-compulsive disorder, and major depressive disorder. This instrument has shown good internal consistency, a 6-factor structure, and discriminant validity (Cervin et al., 2022; Martínez-González et al., 2022; Sandín et al., 2010).

## Data analysis

All analyses were conducted in JASP 0.18.2.0. We explored the PSWQ-C's item functioning by computing corrected item-total correlations with both the direct-scored and reverse-scored items. Items with a discrimination index lower than .20 were eliminated. Afterward, we explored the resulting scale's internal consistency by computing Cronbach's alpha and McDonald's omega.

To analyze internal construct validity, we conducted a confirmatory factor analysis (CFA) of the one-factor structure of the PSWQ-C with robust maximum likelihood (MLR). We calculated the Satorra-Bentler chi-square test and the following goodness-of-fit indexes: (a) the root mean square error of approximation (RMSEA), (b) the comparative fit index (CFI), (c) the non-normed fit index (NNFI), and (d) the standardized root mean square residual (SRMR). Following Hu and Bentler (1999), RMSEA values of 0.08 represent an acceptable fit, and values below 0.05 represent a good fit to the data. For the SRMR, values below 0.08 represent a good fit, and values below 0.05 indicate a very good fit. With respect to the CFI and NNFI, values above 0.90 indicate acceptable models, and values above 0.95 represent a good fit for the data.

We ran additional CFAs to analyze the measurement invariance across schools, gender (boys and girls), and groupage (8-10 years and 11-12 years) of the one-factor structure of the PSWQ-C. In so doing, we followed the guidelines suggested by Jöreskog (2005), Kline (2005), and Millsap & Yun-Tein (2004) to test metric, scalar, and strict invariances by analyzing whether the item factor loadings, item intercepts, and the variance of error of the items were invariant across the abovementioned variables. The relative fit of four progressively more restrictive models was compared. First, the multiple-group baseline model allowed the unstandardized factor loadings to vary across groups, assuming the factor structure is identical across groups (configural invariance). Second, the metric invariance model was nested within the previous model and placed equality of factor loadings across groups (i.e., weak factorial invariance). Thirdly, the scalar invariance model was nested within the metric invariance model and confined the factor loadings, and the items intercepts to be the same across groups (i.e., strong factorial invariance). Lastly, the strict invariance model was nested within the scalar invariance and assumed the variance of errors to be equal across groups. For the model comparison, we weighed the CFI, NNFI, and RMSEA indices between nested models. We chose the more constrained model (i.e., second model versus the first model, and third model versus the second model) following the criteria advocated by Cheung & Rensvold (2002) and Chen (2007): (a) the difference in RMSEA ( $\Delta$ RMSEA) was lower than 0.01; (b) the differences in NNFI ( $\Delta$ NNFI) and CFI ( $\Delta$ CFI) were equal to or higher than  $\Delta$ 0.01.

We evaluated the discriminant validity of the PSWQ-C regarding PTQ-C and anxiety symptoms assessed by the DASS-Y. The discriminant validity of an instrument requires that it does not correlate too strongly with other instruments that are used to measure constructs that are considered different (Campbell, 1960). To test discriminant validity, we calculated the heterotrait-monotrait ratio of correlations (HTMT; Henseler et al., 2015). HTMT is an estimate of the constructs' correlations through structural equation modeling. Henseler et al. (2015) suggest that if the HTMT is lower than .85, there is evidence of discriminant validity across the constructs. This method has shown better functioning than the classic Fornell-Larcker criterion (1981).

Descriptive data are provided for the total sample, and by separating participants by gender and group. A two-way analysis of variance (ANOVA) was computed to analyze differences in the PSWQ-C scores across these variables. Lastly, Pearson correlations between the PSWQ-C and the remaining scales were calculated to assess convergent construct validity.

## Results

### Psychometric quality of the items

Table 1 shows the PSWQ-C items, their translation into Spanish, the corrected item-total correlations, and descriptive data for each item. All items showed good discrimination indexes, except the reverse-scoring items (Items 2, 7, and 9). Cronbach's alpha and McDonald's omega were .80 (95% CI [.78, .82]) and .83 (95% CI [.81, .85]), respectively.

The reverse-scoring items were eliminated due to their deficient discrimination indexes. This decision led to considerably better internal consistencies according to the alpha (.88, 95% CI [.87, .89]) and omega (.88, 95% CI [.87, .89]) values. Thus, we conducted the remaining analyses with the 11 direct-scoring items of the PSWQ-C.

Table 1. PSWQ-C item translation, corrected item-total correlations, and descriptive data

Item	Corrected item-total correlation	M (SD)
1. Mis preocupaciones me molestan mucho [My worries really bother me]	0.54	1.04 (0.92)
2. Realmente no me preocupo por las cosas [I don't really worry about things]	-0.13	1.90 (1.03)
3. Me preocupo por muchas cosas [Many things make me worry]	0.58	1.55 (1.12)
4. Yo sé que no debería preocuparme, pero no puedo controlarlo [I know I shouldn't worry, but I just can't help it]	0.62	1.09 (1.09)
5. Me preocupo mucho cuando estoy bajo presión [When I am under pressure, I worry a lot]	0.53	1.42 (1.17)
6. Siempre estoy preocupado por algo [I am always worrying about something]	0.62	1.09 (1.07)
7. Me es fácil dejar de preocuparme cuando yo quiero [I find it easy to stop worrying when I want]	-0.04	1.78 (1.08)
8. Cuando termino una cosa, empiezo a preocuparme por otra [When I finish one thing, I start to worry about everything else]	0.58	1.05 (1.09)
9. Nunca me preocupo por nada [I never worry about anything]	-0.02	2.17 (0.99)
10. Me he preocupado durante toda mi vida [I've been a worrier all my life]	0.55	1.09 (1.10)
11. Sé que he estado preocupado por cosas [I notice that I have been worrying about things]	0.55	1.46 (0.99)
12. Cuando empiezo a preocuparme, no puedo parar [Once I start worrying, I can't stop]	0.61	1.10 (1.12)
13. Me preocupo todo el tiempo [I worry all the time]	0.63	0.79 (0.95)
14. Me preocupo por las cosas hasta que las termino [I worry about things until they are all done]	0.48	1.41 (1.12)

Note. The following items were reverse scaled: PSWQ-2, PSWQ-7, PSWQ-9.

**Validity evidence based on internal structure**

Dimensionality. The one-factor model of the PSWQ-C obtained a good fit to the data ( $\chi^2_{S-B(55)} = 88.02, p < .001, RMSEA = 0.04, 90\% CI [0.02, 0.05], CFI = 0.98, NNFI = 0.97, SRMR = 0.02$ ). Figure 1 shows the results of the completely standardized solution of this factor model of the PSWQ-C.

Measurement invariance. Table 2 presents the results of the measurement invariance analyses. All levels of measurement invariance were supported across gender and school because changes in RMSEA, CFI, and NNFI were lower than 0.01. The analyses of factorial equivalence across groupage supported invariance at metric and scalar levels. However, the criteria to claim for the strict level was not completely met because the change in CFI was higher than 0.01.

Figure 1. Completely standardized solution of the one-factor model of the Penn State Worry Questionnaire – Children (PSWQ-C)

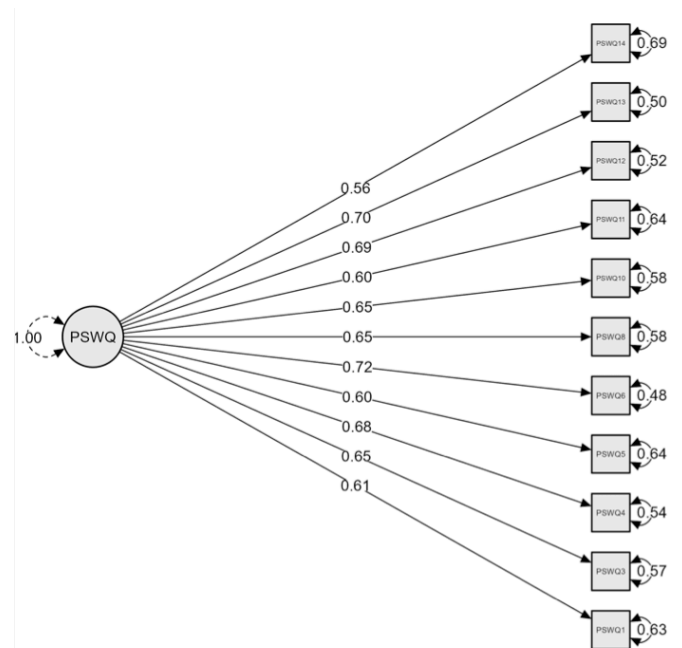


Table 2. Metric and scalar invariance across gender, groupage, and schools of the PSWQ-C

Model	RMSEA	ΔRMSEA	CFI	ΔCFI	NNFI	ΔNNFI
Measurement invariance across gender						
MG Baseline model	0.049		0.972		0.965	
Metric invariance	0.046	0.003	0.973	0.001	0.969	0.004
Scalar invariance	0.043	0.003	0.974	0.001	0.974	0.005
Strict invariance	0.042	0.001	0.972	-0.002	0.974	0.000
Measurement invariance across groupage						
MG Baseline model	0.047		0.975		0.969	
Metric invariance	0.046	0.001	0.974	-0.001	0.971	0.002
Scalar invariance	0.045	0.001	0.972	-0.002	0.972	0.001
Strict invariance	0.051	-0.006	0.960	-0.012	0.963	-0.009
Measurement invariance across schools						
MG Baseline model	0.044		0.978		0.972	
Metric invariance	0.044	0.000	0.976	-0.002	0.973	0.001
Scalar invariance	0.046	-0.002	0.971	-0.005	0.970	-0.003
Strict invariance	0.043	0.003	0.972	0.001	0.974	0.004



### Discriminant validity

The results supported the discriminant validity of the PSWQ-C in relation to the PTQ-C (HTMT = 0.81) and DASS-Anxiety (HTMT = 0.69) because the HTMT values were below the cutoff of 0.85 suggested by Henseler et al. (2015).

### Convergent construct validity

Table 3 presents the correlations obtained by the PSWQ-C with other relevant constructs. As expected, the PSWQ-C strongly correlated with the PTQ-C ( $r = .74$ ). The correlations with emotional symptoms as measured by the DASS-Y were also strong but lower than with the PTQ-C, ranging from .56 for depression and .66 for the overall scale. Regarding the RCADS-30, all correlations were positive and strong, ranging from .40 for separation anxiety disorder to .64 for panic disorder and OCD.

Table 3. Pearson correlations between the PTQ-C and other relevant self-report measures

Measure	$r$ with PSWQ-C
PTQ-C	.74***
DASS-Y- Total	.66***
DASS-Y – Depression	.56***
DASS-Y – Anxiety	.61***
DASS-Y – Stress	.60***
RCADS – GAD	.56***
RCADS - Depression	.55***
RCADS – Social Phobia	.60***
RCADS – Panic Disorder	.64***
RCADS – OCD	.64***
RCADS –Separation Anxiety Disorder	.40***

\*\*\*  $p < .001$

### Scores across gender and age

Table 4 presents the descriptive data on the PSWQ-C separating mean scores across gender and groupage. The two-way ANOVA yielded a statistically significant effect for gender ( $F(1) = 16.62, p < .001$ ), with girls showing higher PSWQ-C scores than boys. No effects were found for groupage ( $F(1) = 2.24, p < .13$ ) and the interaction between gender and groupage ( $F(1) = 0.79, p < .37$ ).

Table 4. Descriptive Data of the Mean Scores on the PSWQ-C

Gender	Age	$N$	$M$	$SD$
Boys	8-10 years	159	1.06	0.71
	11-12 years	147	1.09	0.71
Girls	8-10 years	151	1.25	0.76
	11-12 years	128	1.39	0.69
Overall	8-12 years	585	1.19	0.73

## Discussion

Due to the high prevalence of anxiety disorders in children and the central relevance of worry, particularly in GAD, it is crucial to develop measurement tools to assess pathological worry in this pop-

ulation. Ideally, these instruments should be valid across diverse populations, bridging cultural and social gaps. Translating existing instruments might facilitate testing the efficacy of psychological interventions for anxiety disorders and compare their relative efficacy across cultures. In this respect, the PSWQ-C is the most studied measure of pathological worry in children, and the adult version (i.e., PSWQ) has been considered the gold standard measure of GAD-related worry (Hanrahan et al., 2013). Accordingly, this study translated the PSWQ-C into Spanish and analyzed the psychometric properties of this questionnaire in a large sample of Colombian children aged between 8 and 12 years.

The PSWQ-C showed good internal consistency. However, the three items with reverse scoring showed a low discrimination index. Following previous works (e.g., Kang et al., 2010; Muris et al., 2001), these items were removed. As a consequence, the internal consistency of the scale increased significantly. The CFA found that the one-factor model showed a good fit to the data, which is consistent with all psychometric analyses of the PSWQ-C conducted (e.g., Benedetto et al., 2019; Chorpita et al., 1997; Muris et al., 2001; Păsărelu et al., 2017). This also coincides with most of the studies conducted on the adult version of the PSWQ (e.g., Beck et al., 1995; Oliveira et al., 2023; Ruiz et al., 2018; Sandín et al., 2009; van Rijscort et al., 1999).

One contribution of this study is the analysis conducted of the measurement invariance of the one-factor model of the PSWQ-C across gender, school, and groupage. Metric, scalar, and strict invariance were confirmed across gender and school. Regarding groupage, measurement invariance at metric and scalar levels was found. These findings are relevant because establishing scalar measurement invariance is needed to compare mean scores across groups of participants (e.g., Greiff & Scherer, 2018) and add further evidence of the measurement invariance found by Păsărelu et al. (2017) across age, gender, and clinical samples.

Another contribution of our research is providing evidence of the PSWQ-C's discriminant validity in relation to RNT (i.e., PTQ-C scores) and anxiety (i.e., DASS-Anxiety scores). To our knowledge, this is the first study to conduct this analysis on a nonclinical sample in the PSWQ-C. In a previous study, discriminant validity was only analyzed in a clinical sample (Chorpita et al., 1997).

Regarding convergent validity, the PSWQ-C scores showed a strong correlation with the PTQ-C ( $r = .74$ ), which measures the similar but wider construct of RNT. The PSWQ-C also showed strong correlations with emotional symptoms as measured by the DASS-Y ( $r$  values between .56 for Depression and .61 for Anxiety) and the disorders evaluated by the RCADS-30 ( $r$  values between .40 for separation anxiety disorders and .64 for panic disorder and OCD).

Interestingly, the correlation between the PSWQ-C and the GAD subscale of the RCADS-30 was strong ( $r = .56$ ) but not the strongest with the RCADS subscales. Thus, we compared the PSWQ-C and the GAD subscale items of the RCADS. All the items from the RCADS focus on worry but are considerably simpler than the PSWQ-C items (see Table 1), have a more general content, and do not specify problematic aspects of worry and its duration. Examples of the GAD subscale items of the RCADS are "I worry about things," "I worry that something awful will happen to someone in my family," and "I worry that something bad will happen." Conversely, the PSWQ-C was designed considering worry as a natural coping strategy that becomes pathological when perceiving it as uncontrollable (Hirsch & Mathews, 2012).

Some limitations of the current study are worth mentioning. First, the PSWQ-C functioning was analyzed in only two Colombian schools. Thus, further studies should analyze the psychometric prop-

erties of the PSWQ-C in more diverse Colombian contexts. Second, we did not recruit a clinical sample to test the psychometric properties of the PSWQ-C. Subsequent studies in Colombian clinical samples might confirm previous findings regarding the good internal consistency, test-retest reliability, and one-factor structure in nonclinical samples (Chorpita et al., 1997; Liu & Zhong, 2020). Third, we did not analyze the treatment sensitivity of the PSWQ-C. As before, future studies should confirm that the Spanish version of the PSWQ-C shows treatment sensitivity as the original version (Wahlund et al., 2020). Lastly, the correlations found between the PSWQ-C and the remaining instruments might be artificially inflated because the same measurement procedure was used for all instruments in this study. Future studies might analyze the correlation of the PSWQ-C with behavioral measures of worry.

In conclusion, the current study represents the first psychometric analysis of the Spanish version of the PSWQ-C. This instrument demonstrated good internal consistency, the expected one-factor structure, at least scalar invariance across gender, school, and group, discriminant validity in relation to measures of RNT and anxiety, and convergent validity in a large sample of Colombian children. Future studies might analyze psychometric properties of the Spanish version of the PSWQ-C that remains unexplored and include samples from other Spanish-speaking countries.

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## Conflict of Interest

The authors declare that there are no conflicts of interest.

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