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ARTÍCULO ORIGINAL

Adaptation of the Beck Anxiety Inventory in population of Buenos Aires

Adaptación del Inventario de Ansiedad de Beck en población de Buenos Aires

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ABSTRACT

Background: Currently, anxiety disorders are the most prevalent worldwide, reaching a rate of 5% in Argentina in 2017. The Beck Anxiety Inventory (BAI) is one of the instruments most used in research and clinic today. In its construction, one of the objectives was to evaluate anxiety symptoms that are not usually evident in depressive disorders, which is why it is a relevant test to make a differential diagnosis. The objective of this study was to adapt the BAI to adult population of Buenos Aires. **Methods:** A direct translation of the inventory and then an expert judgment to assess the content validity were carried out. The discrimination capacity of the items was analyzed, and the structural validity of the test were evaluated according to different models found in the literature. Also, the internal consistency of the instrument was analyzed. **Results:** The adaptation presents adequate content validity and the items have been shown to discriminate adequately. As for the confirmatory factor analyzes, the most parsimonious solution, which indicates the one-dimensionality of the construct, was chosen, providing evidence of construct validity. The adaptation presents adequate internal consistency. Tentative normative values are offered. **Conclusion:** Evidence of validity and reliability has been found for the Argentine adaptation of the BAI. It is considered an instrument of great clinical utility.

Keywords: BAI; Anxiety; Population of Buenos Aires; Content validity; Construct validity; Internal consistency.

RESUMEN

Introducción: En la actualidad los trastornos de ansiedad son los de mayor prevalencia a nivel mundial, llegando a una tasa del 5% en Argentina en el año 2017. En ese sentido, el Inventario de Ansiedad de Beck (BAI) es uno de los instrumentos más utilizados en investigación y clínica en la actualidad. En su construcción uno de los objetivos fue evaluar síntomas de ansiedad que no suelen evidenciarse en trastornos depresivos, motivo por el cual resulta un test relevante para realizar un diagnóstico diferencial. El objetivo de este estudio fue adaptar el BAI a población adulta de Buenos Aires. **Método:** Se realizó una traducción directa del inventario y luego un juicio de expertos para evaluar la validez de contenido. Se analizó la capacidad de discriminación de los reactivos y se evaluó la validez estructural de los diferentes modelos encontrados en la literatura. A su vez, se analizó la consistencia interna del instrumento. **Resultados:** La adaptación presenta adecuada validez de contenido y los reactivos han demostrado discriminar de forma adecuada. A su vez, a partir de los análisis factoriales confirmatorios realizados se optó por la solución más parsimoniosa que indica

la unidimensionalidad del constructo aportando evidencia de validez de constructo. A su vez, la adaptación presenta una adecuada consistencia interna. Se ofrecen valores normativos tentativos. **Conclusión:** Se han hallado evidencias de validez y confiablidad para la adaptación argentina del BAI. Se lo considera un instrumento de gran utilidad clínica.
Palabras clave: BAI; Ansiedad; Población de Buenos Aires; Validez de Contenido; Validez de Constructo; Consistencia Interna.

BACKGROUND

Anxiety disorders are ranked as the most prevalent disorders worldwide (Ritchie & Roser, 2018). In Argentina, anxiety disorders constitute the group with the highest prevalence, followed by mood disorders (Stagnaro et al., 2017). The relationship between both disorders has been well documented in the research literature. Even the similarity of symptoms between anxiety and depressive disorders can make investigation, diagnosis and treatment difficult (Mountjoy and Roth, 1982). This problem can be explained due to the cognitive biases shared by both pathologies, as well as their frequent comorbidity. In this sense, cognitive biases in judgment and interpretation of situations are common for both disorders, as well as predominantly negative affection (Mineka, Watson & Clark, 1998).

In relation to the comorbidity between anxiety and depressive disorders, it has been found that a large part of people with anxiety disorders also experience depressive disorders, and vice versa (Gorman, 1996). Even transdiagnostic treatments have been developed that allow working with both problems, as is the case with the unified protocol proposed by Barlow et al. (2016). This protocol is characterized by addressing the common mechanism underlying both disorders: emotional regulation. In this regard, it has been found that maladaptive emotional regulation strategies can be common processes across various psychological disorders (Aldao et al., 2010).

Also, calamitous events such as natural disasters or attacks can cause a substantial increase in anxiety symptoms (Clark & Beck, 2011). In 2020, different countries of the world have been affected by the COVID-19 pandemic. The psychological impact caused by this situation has caused an increase in anxiety and depressive symptoms (Rajkumar, 2020).

In this context, the evaluation and follow-up of the problems associated with anxiety is fundamental, given that they impose a great individual and social burden, tend to be chronic and can be disabling (Lépine, 2002). Accordingly, it has been found that anxiety and depression disorders involve a large part of the economic resources destined to the treatment of psychological disorders (Ruiz-Rodríguez, 2017). However, it has been estimated that only a quarter of the people who meet the criteria for anxiety disorders have received treatment (Alonso et al., 2018). Due to the aforementioned, it is necessary to have valid and reliable instruments that allow a correct measurement of anxiety and can discriminate these pictures from depressive disorders. In this sense, the Beck Anxiety Inventory (BAI;Beck et al., 1988) was designed with a double objective: to measure anxiety in a valid and reliable way and to discriminate anxiety from depression (Sanz & Navarro, 2003). This anxiety assessment instrument is also the most cited in scientific databases (Piotrowski, 2018), as well as one of the most used in clinical and non-clinical populations both in psychotherapeutic practice and in research (Magán et al., 2008).

For this reason, the general objective of this research was to carry out the conceptual, linguistic and metric adaptation of the Beck Anxiety Inventory in the general adult population of the City of Buenos Aires and the Greater Buenos Aires. In this way, the specific objectives proposed were a) to examine evidence of content validity; b) analyze the discrimination capacity of the items; c) obtain evidence of structural and construct validity; d) study the internal consistency of scores; e) establish normative values.

METHODS

Participants

The sampling was non-probabilistic and intentional. The sample consisted of 269 subjects, of which 49.4% resided in the Autonomous City of Buenos Aires and 50.60% in the Province of Buenos Aires. In relation to gender, 37.5% were male, 60.6% female, and 1.9% preferred not to communicate it. Regarding the age of the participants, there were cases between 18 and 76 years (M = 32.35, SD = 12.17). Regarding educational level, 1.5% presented complete primary school, 57.5% completed secondary school and 41% reported having completed university studies. Finally, it was consulted whether they had been diagnosed with any psychological problems, 86.2% reported not being diagnosed, 7.1% mentioned being diagnosed with an anxiety disorder, 3.3% depression and the remaining 3.4% other problems such as post-traumatic stress, eating and personality disorders.

Instruments

First, a sociodemographic questionnaire was designed to collect information on the place of residence, age, gender, educational level, and history of psychological diagnoses.

Second, the Spanish translated version of the Beck Anxiety Inventory (BAI, Beck, Epstein, Brown & Steer, 1988) was used. This inventory presents 21 items with a format designed to assess the severity of clinical anxiety symptoms. Each BAI item reflects an anxiety symptom and for each one, respondents rate the degree to which they were affected by it during the last week, on a 4-point Likert scale, ranging from 0 (Not at all) to 3 (Severely - I get very upset). Regarding the score, each item is assigned from 0 to 3 points, depending on the response of the individual and, after directly adding the score for each item, a total score can be obtained, ranging from 0 to 63.

Process

The collection of analysis units was carried out through the use of virtual platforms. An informed consent was included in which the details of the objectives of the present investigation were specified, together with the guarantees of confidentiality and anonymity. It was explained to the participants that they could desist from participating at the moment they considered it and in turn they were given an email to communicate in case they

felt discomfort when answering the questionnaire.

Data analysis
First, the translation of the inventory was carried out according to the recommendations of Muñiz et al. (2013), using the direct translation method in order to find linguistic and cultural equivalence. Three bilingual experts with experience in instrument translation were asked to each carry out a direct translation of the questionnaire from English to Spanish. Once the three versions were obtained in Spanish, a committee of experts was convened that could analyze the translations made, in this way the most appropriate translations in linguistic and cultural terms were then selected.

The expert trial (Andreani, 1975) was carried out following the recommendations of Escobar-Pérez and Cuervo-Martínez (2008). The criteria for selecting these judges were: a) previous experience in conducting judgement of experts b) expert in psychometrics and psychological evaluation c) knowledge on psychopathology e) knowledge about construct anxiety. Once the five expert judges were selected, the instructions and forms were prepared to be provided by mentioning the objectives of the study and the slogan regarding the trial they were expected to conduct. To assess semantic and syntactic clarity, expert judges used a four-point likert scale where 1 indicated "*different*", 2 "*quite different*" 3, "*pretty similar*" and 4 "*identical*", this referred to whether the reagent was easily understood, in our cultural context. On the other hand, to assess the consistency of translations, expert judges used a four-point likert scale where 1 indicated "*does not meet the criterion*", 2 "*low level*" 3, "*moderate level*" and 4 "*high level*", this referred to thus the reagent makes sense with respect to the dimension or indicator it is measuring. Finally, to assess the relevance of translations, expert judges used a four-point likert scale where 1 indicated "*does not meet the criterion*", 2 "*low level*" 3, "*moderate level*" and 4 "*high level*", this referred to thus the reagent was essential or very important and should be excluded.

Through these scales, each expert responded by reading the item from the original version and then scored each of the three translations establishing the semantic equivalence, coherence and relevance of the items. according to the recommendations of Tornimbeni et al. (2008). In this way, the final version was made up of the items that obtained the highest score by the judges. In turn, an observations section was established, instructing the judge to make observations regarding the congruence of the item with the dimension and syntactic aspects that he wanted to highlight.

Once the results of each of the judges were obtained, a form was made with all the valuations from which the percentage of agreement was estimated (Tinsley and Weiss, 1975) and the coefficient V of Aiken (Aiken, 1985) of the trial carried out by all judges. These agreement indicators are represented by values ranging from 0 to 1 the closer to 1 the reagent will have greater content validity.

Second, according to the recommendations of Hogan (2004), a discrimination analysis of the items was carried out, providing information on the ability of an item to differentiate in statistical terms the individuals who have a higher value of the variable of those who have a lower level. The internal method of comparison between extremes was used (Muñiz, 2005), dividing the sample into quartiles with respect to the total score obtained. Once this was done, a comparison was made of the values of each item in the two groups –quartile 1 and quartile 4-, thus determining which items discriminate adequately. To do this, the Mann Whitney U statistic was used, since the items did not fulfill the assumption of normality.

Third, the structural validity of the BAI was evaluated. For this, three models disseminated in the literature were tested: the one-factor (Magán et al., 2008), the original two-factor (Beck et al., 1988), and the four-factor (Osman et al., 1993). Because the data did not meet the normality criteria and the response format of the BAI, following the criteria adopted by Osman et al. (1997), an analysis of the covariance matrices was carried out using the elliptical test with reweighted least squares (Browne, 1984) with the EQS version 6.1 statistical software.

The following goodness of fit indices were considered: x^2 divided by the degrees of freedom (values ≤ 5.0 indicate a good fit); NNFI (Non-Normed Fit Index); CFI (Comparative Fit Index), RMSEA (Root Mean Square Error of Approximation) and SRMR (Standardized Root Mean-Square Residual). According to the criteria specified by Kline (2011) and Schumacker & Lomax (2016), values greater than or equal to .90 in NNFI and CFI and values less than or equal to .06 in RMSEA and less than .08 in RMSEA and less than .08 in SRMR. In turn, the AIC (Akaike's Information Criterion) was taken into account, which yields relative values. The best model will be the one with the lowest AIC. The construct validity was evaluated by examining the factor loadings. Values above .30 were considered adequate (Nunnally & Bernstein, 1994).

Finally, to assess internal consistency, the α ordinal and ω ordinal reliability indices were calculated (McDonald, 1999), from polychoric correlation matrices. For this, the R program version 3.6.0 and the following R packages were used: GPArotation (Bernaards, & Jennrich, 2005), psych (Revelle, 2018) and Rcmdr (Fox, & Bouchet-Valat, 2019). The composite reliability coefficient ρ (Bentler, 1968) was also reported, based on the standardized loads of the items that make up the inventory. In turn, the corrected item-factor correlations were calculated, considering as adequate values greater than .40. (Nunnally & Bernstein, 1994).

To establish normative values, percentile scores were calculated with the SPSS version 26 software, in accordance with the recommendations of Sanz (2014).

Ethical aspects
The purpose of the study was explained in writing before administration began. All participants gave their consent. Informed consent set out the characteristics of the participation, which was anonymous, voluntary and uncompensated. At the end of the administration, participants were provided with the document containing the recommendations to face the pandemic, published by the Faculty of Psychology of the University of Buenos Aires (2020).

RESULTS

To obtain evidence of content validity, the expert judgment was conducted. From the three translations and the indications of the five judges, the 21 items were selected. Regarding the three established criteria -Semantic equivalence, coherence and relevance- the items that made up the final version, obtained percentages of agreement between .80 and 1, adequate according to the literature (Voutilainen & Liukkonen, 1995, cited in Hyrkäs et al., 2003) with the exception of item 4 -Unable to relax- whose semantic clarity index was below .80, its translation was "Inability to relax". In this particular item, one of the judges questioned whether it was written in the first person. Based on this observation, it was decided to modify the item so that the final version ended up being "Inability to relax."

In turn, Aiken's V coefficients ranged between values of .80 to1 mostly, acceptable values according to the literature (Aiken, 2003). However, items 4, 6, 10 and 13 values were not adequate (see table 1). Regarding item 4, the modification that was made

based on the evaluations and observations has already been indicated. In item 6 -Dizzy or lightheaded- whose final translation was "Dizziness or vertigos" the translation brought difficulties due to the low frequency of the words translated in our language, as no observations were received from the judges, it was decided to consult a specialist in linguistics from which it was decided to keep the aforementioned translation. In relation to item 10 –Nervous- whose final translation was "Nervous", as can be seen in Table 1, the judges indicated disagreement regarding the relevance of the item to assess anxiety symptoms, Due to the adaptation nature of the present work, it was preferred to keep the item and evaluate its behavior at the metric level. In turn, item 13 -Shaky / unsteady- whose translation was "Restless / insecure" presented inadequate values regarding its clarity and relevance. Based on the observations received by the judges, it was decided to replace the word insecure with shaky, defining the final version of the item as "Inquiero / shaky". Finally, two of the expert judges reported that the DSM

Table 1. Percentage of Agreement and V of Aiken of the Expert Judgment.

Item	Clarity		Coherence		Relevance	
	% Agreement	V Aiken	% Agreement	V Aiken	% Agreement	V Aiken
EA1[a]	1	1	1	1	1	1
EB1[a]	1	1	1	1	1	1
EC1[a]	0.8	0.93	1	1	0.8	0.87
ED1[a]	1	1	1	1	1	1
BAI 1	1	1	1	1	1	1
BAI 2	0.8	0.8	0.8	0.8	0.8	0.87
BAI 3	0.8	0.87	0.8	0.93	0.8	0.93
BAI 4	0.6	0.67	0.8	0.87	0.8	0.87
BAI 5	1	1	0.8	0.8	0.8	0.8
BAI 6	0.8	0.73	1	1	0.8	0.87
BAI 7	0.8	0.93	0.8	0.93	0.8	0.93
BAI 8	1	1	0.8	0.93	0.8	0.87
BAI 9	0.8	0.93	1	1	0.8	0.87
BAI 10	0.8	0.93	1	1	0.6	0.73
BAI 11	1	1	1	1	1	1
BAI 12	0.8	0.93	0.8	0.93	0.6	0.73
BAI 13	0.8	0.73	0.6	0.73	0.6	0.73
BAI 14	0.8	0.93	0.8	0.93	0.8	0.93
BAI 15	0.8	0.93	0.8	0.93	0.8	0.93
BAI 16	0.8	0.93	0.8	0.93	0.8	0.93
BAI 17	1	1	1	1	1	1
BAI 18	0.8	0.93	1	1	1	1
BAI 19	0.8	0.87	0.8	0.87	0.8	0.87
BAI 20	0.8	0.8	0.8	0.87	0.8	0.8
BAI 21	0.8	0.87	0.8	0.87	0.8	0.87

Note. Calculation of percentage of agreement and V of Aiken of the Expert Judgment. [a] E indicates the results of the judgment on the likert scale of the instruments

5 (American Psychological Association, 2013) made a modification in the diagnosis of panic disorder and the criterion "Fades or fainting" was modified by "Feeling fainting or fainting" understanding that the test was built under an earlier version of the DSM taking as a criterion that symptom was decided to modify it by translating item 19 as Feeling of fading or fainting.

In conclusion, the expert trial has provided valuable results in relation to the analysis and modification of direct translations by bilingual judges in such a way that certain inconsistencies that were corrected or in some cases will be taken into account in subsequent reagent analyses have been detected.

Regarding the analysis of the reagents, Table 2 shows the results of the comparison of the items according to quartile 1 and quartile 4 obtained by the total score of each case. The differences were significant in all cases p <.01 (*α = .01), w*ith the exception of item 19, this would indicate that all of them discriminate adequately. Regarding item 19 - Feeling of fainting or fainting - it should be noted that it only obtained responses of 1 and 2 points on the Likert scale in the entire sample. It is probable that although the discrimination power of item 19 was not adequate, it has a clinical utility at a qualitative level, for this reason, it was decided to keep it and evaluate it from the confirmatory factor analysis carried out.

To examine the factorial structure, 3 models were tested: the one-factor, the original two-factor and the four-factor models, through a confirmatory factor analysis performed from the analysis of the covariance matrices using the elliptical test with minimums. reweighted squares.

Regarding the single factor model, the goodness of fit indices were the following: $\chi 2$ (184) = 355.37; CFI = 0.96; NNFI = 0.95; RMSEA = 0.06; SRMR = 0.07; AIC = -12.63. Regarding the two-factor model, the goodness of fit indices obtained were: $\chi 2$ (188) = 570.91; CFI = 0.91; NNFI = 0.90; RMSEA = 0.09; SRMR = 0.08; AIC = -194.91. In relation to the four-factor model, the following goodness of fit indices were obtained: $\chi 2$ (183) = 352.96; CFI = 0.96; NNFI = 0.96; RMSEA = 0.06; SRMR = 0.07; AIC = -13.05 (Table 3). These results indicate that the most suitable model is that of a factor.

Regarding the construct validity, the standardized factor loadings, scores greater than> .40 were obtained in all cases except for item 19: "feeling of fainting or fainting", whose standardized load was 0.27 (Table 4).

In relation to internal consistency, ordinal alpha and omega were calculated for the only factor that makes up the entire inventory. A ordinal = 0.93, ω ordinal = 0.95 were obtained. Regarding the composite reliability, ρ = 0.92 was obtained. The corrected item-factor correlations have been obtained satisfactory values for all items except for item 27 (Table 4).

In relation to the formulation of normative values, Table 5 provides percentile scores for the scores of the Argentine adapta-

Table 2. Internal Method of Comparison between Extremes.

Item	T		Q1		Q4		U of Mann Whitney	
	M	DE	M	DE	M	DE	Z	p
BAI 1	0.51	0.7	0.15	0.4	0.87	0.83	-5.77	.000 *
BAI 2	0.49	0.79	0.11	0.36	0.99	0.97	-6.32	.000 *
BAI 3	0.39	0.68	0.06	0.24	0.93	0.91	-6.86	.000 *
BAI 4	1.28	0.94	0.49	0.62	2.07	0.82	-8.59	.000 *
BAI 5	0.95	0.99	0.18	0.39	2.01	0.83	-9.68	.000 *
BAI 6	0.29	0.63	0	0	0.69	0.88	-6.16	.000 *
BAI 7	0.52	0.84	0.03	0.17	1.27	1.05	-7.99	.000 *
BAI 8	0.76	0.92	0.14	0.35	1.76	0.92	-9.16	.000 *
BAI 9	0.54	0.83	0.02	0.12	1.46	0.96	-9.13	.000 *
BAI 10	1.25	0.88	0.49	0.59	2.06	0.72	-8.98	.000 *
BAI 11	0.38	0.67	0.05	0.21	1	0.87	-7.44	.000 *
BAI 12	0.24	0.59	0.02	0.12	0.64	0.9	-5.41	.000 *
BAI 13	0.55	0.78	0.09	0.34	1.3	0.87	-8.36	.000 *
BAI 14	0.52	0.81	0	0	1.31	1.03	-8.42	.000 *
BAI 15	0.33	0.65	0.03	0.17	0.97	0.88	-7.48	.000 *
BAI 16	0.3	0.66	0.02	0.12	0.79	0.98	-6.05	.000 *
BAI 17	0.58	0.82	0.08	0.27	1.39	0.94	-8.62	.000 *
BAI 18	0.83	0.92	0.34	0.59	1.53	0.97	-7.04	.000 *
BAI 19	0.03	0.17	0.03	0.17	0.09	0.28	-1.34	0.178
BAI 20	0.23	0.55	0.03	0.17	0.49	0.78	-4.6	.000 *
BAI 21	0.39	0.73	0	0	0.9	0.97	-6.87	.000 *

Note. Comparison between extremes according to the total value of anxiety; T = total sample Q1 = First quartile; Q4 = Fourth Quartile; M = Average; SD = standard deviation; Z = Mann Whitney U statistic Z score; p = level of statistical significance p; * p <.001.

tion of the BAI.

DISCUSSION

The general objective of this research was to carry out the conceptual, linguistic and metric adaptation of the Beck Anxiety Inventory in the general adult population of Buenos Aires. The specific objectives proposed were a) to examine evidence of content validity; b) analyze the discrimination capacity of the items; c) obtain evidence of structural and construct validity; d) study the internal consistency of scores; 3) establish normative values.

Following the recommendations of Muñiz et al. (2013), it was decided to carry out a direct translation of the questionnaire, the expert judges evaluated the semantic and syntactic clarity of the adapted version. The process provided relevant information to correct linguistic aspects in some cases –item 4- and cultural ones where words more representative of the symp-

tomatology in our culture were used –items 6 and 13-. In turn, a modification was made to item 19 based on the change produced in DSM 5. In the new version of the manual it is reported that the diagnostic criteria for panic disorder, fainting, and dizziness are related to the perception of loss of consciousness. control or death and it was specified that the criterion should contemplate the sensation since it is typical of the disorder that the person perceives that sensation and it does not always become concrete (American Psychological Association, 2013). Due to the aforementioned, item 19 "Fainting or fainting spells" was modified for "Feeling of fainting or dizzy". The aforementioned changes account for a translation process that included the updating and the context of application of the instrument. On the other hand, the acceptable values of percentage of agreement and V of Aiken in the relevance dimension, evaluated by the expert judges, show that the adapted version presents adequate content validity. In turn, the reliability coefficients that

Table 3. Goodness of fit indices for the different models related to the factorial structure of the BAI

Modelo	χ2/gl	NNFI	CFI	RMSEA (IC 90%)	SRMR	AIC
1 factor	1,93	0,95	0,96	0,06 (0,05,- 0,07)	0,07	-12,63
2 factors	3,03	0,90	0,91	0,09 (0,08 - 0,10)	0,08	194,91
4 factors	1,92	0,96	0,96	0,06 (0,05,- 0,07)	0,07	-13.5

Note: χ2/gl = chi squared divided by the degrees of freedom; NNFI = Non-Normed Fit Index; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; CI = confidence interval; SRMR = Standardized Root Mean-Square; AIC = Akaike information criterion.

Table 4. Standardized factorial loads and corrected item-factor correlations of the BAI items.

Item	Standardized factor loading	Corrected item-factor correlation
1. Tingling or numbness	0.38	0.5
2. Sense of intense heat	0.46	0.51
3. Weakness in the legs	0.53	0.66
4. Inability to relax	0.56	0.66
5. Fear that the worst will happen	0.71	0.69
6. Dizziness	0.46	0.64
7. Palpitations or tachycardia	0.62	0.76
8. Feeling of instability	0.64	0.72
9. Afraid or terrified	0.75	0.77
10. Nervous	0.65	0.67
11. Feeling of suffocation	0.66	0.66
12. Shaking hands	0.57	0.68
13. Restless, shaky	0.66	0.67
14. Fear of losing control	0.67	0.68
15. Difficulty breathing	0.69	0.74
16. Fear of dying	0.48	0.65
17. Scared	0.67	0.73
18. Indigestion or upset stomach	0.43	0.59
19. Feeling light-headed or faint	0.27	0.33
20. Blushing	0.43	0.52
21. Sweating (not produced by heat)	0.47	0.61

in all cases exceed .90 provide greater evidence of the internal consistency presented by the questionnaire. This indicates that the items are a representative sample of the anxiety symptoms that the questionnaire intends to measure. However, item 10 has been questioned by the judges regarding the relevance to assess anxiety symptoms, however, both the comparison test between extremes (which shows an adequate discrimination power of the item) and the CFA where the item has a high factorial load, show its relevance in the test. It would be appropriate to evaluate the aforementioned items in tests of convergent and discriminant validity.

On the other hand, with the exception of item 19, the items have shown adequate discrimination power in all cases, from separating the sample into quartiles based on the total score, it was evidenced that the items discriminate adequately between those with major and minor anxiety symptoms. Regarding item 19, as mentioned above, as it is a specific item for panic disorder, it should be studied in a clinical population in order to evaluate its discrimination power according to anxiety disorder. Regarding structural validity, although the three models studied obtained adequate goodness-of-fit indices, it was found that the best model is one factor. This result coincides with the research of Magán et al., 2008, who when they adapted the instrument in the Spanish population and found that the most appropriate solution was a global anxiety factor. In this sense, the results are not coincident with the original two-factor structure (Beck et al., 1988). In that sense, Bardhoshi, Duncan & Erford (2016), in a psychometric meta-analysis on the properties of the English versions of the BAI, found that studies have reported solutions of 1 to 6 factors. In such a way that population peculiarities could affect the factorial structure of the instrument.

When analyzing the standardized loadings of the items, satisfactory values were found in all cases, except again in item 19, "Feeling of fainting or fainting." This result can be explained because the item refers to a specific diagnostic criterion only for panic disorder for DSM 5. It is important to clarify that other anxiety disorders can lead to panic episodes, which justifies keeping the item as a relevant qualitative indicator is highlighted in the final version of the Argentine adaptation of the inventory. However, it is recommended to analyze the psychometric properties of the inventory in larger samples, as well as in the clinical population to reevaluate its functioning.

Taking into account the fourth objective to study the internal consistency of the scores, excellent values were obtained in the three calculated indexes, according to the criterion established by George & Mallery (2003): Ordinal α =0,93, ordinal ω = 0,95, and composite reliability ρ=0,92.

Regarding the last objective, namely establishing normative values, percentile scores obtained from the application of the BAI are offered. Although these normative values can be indicative in relation to the global level of anxiety, it is suggested to interpret them carefully and take them as tentative. Given the small sample size and the non-representativeness of the sample.

To conclude, the Argentine adaptation of the Beck Anxiety Inventory is a valid and reliable instrument for the evaluation of anxiety symptoms in adults in Buenos Aires. As it is a short and

Table 5. Percentile scores of the Argentine adaptation of the BAI.

Percentile	Score
5	1
10	2
15	3
20	4
25	5
30	5
35	6
40	7
45	7
50	8
55	9
60	11
65	12
70	14
75	16
80	18
85	22
90	25
95	30
99	41

easy-to-administer instrument, it is considered very useful for carrying out follow-up tasks in the current context, as well as for evaluating psychotherapeutic interventions.

Regarding the limitations of the study carried out, first of all the small size and non-probabilistic nature of the sample collected can be mentioned. Future research may take larger and more representative samples, as well as from different regions of the country, to have a global vision about the phenomenon of interest.

Secondly, even with the evidence obtained, new studies are required to analyze factor constancy through different samples, as well as convergent and discriminant validity. Specifically, to study the discriminative power of BAI in relation to depressive symptoms.

Third, it is suggested that later studies investigate invariance of different sociodemographic variables such as gender or age, to ensure that the factorial structure is constant in different groups.

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The authors express our support for open science. However, we consider it relevant to safeguard the database to preserve the anonymity of the participants and the confidentiality of the data, in relation to professional secrecy. The database, as well as the instrument, may be requested from the authors' emails.

DISCLAIMER
The authors are responsible for all statements made in this article. Neither Interactions nor the Peruvian Institute of Psychological Orientation are responsible for the statements made in this document.

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