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Psychometric Characteristics of the Pictorial Test of Cognitive Profiles

Características Psicométricas do Teste Pictórico de Perfis Cognitivos

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ABSTRACT

This study evaluated the psychometric properties of the Pictorial Test of Cognitive Profiles (TPPC) through the internal consistency and convergent validity of the TPPC with the Brazilian version of the Personality Belief Questionnaire – Short Form (PBQ-SF). The TPPC as well as the PBQ-SF was designed as a clinical and research tool, with nine subscales, to assess personality profiles. A sample of 86 college students responded to the Brazilian version of the PBQ-SF and the TPPC. The results showed satisfactory levels for estimating the reliability (Cronbach's alpha) of the TPPC test (alpha = .93). Overall, the findings demonstrate the convergent validity for the TPPC, suggesting that it is also a practical tool to evaluate cognitive profiles of personality as well as the PBQ-SF.

Keywords: Pictorial Test of Cognitive Profiles (TPPC); personality disorders, cognitive schemas; Personality Belief Questionnaire – Short Form (PBQ-SF)

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RESUMO

Este estudo avaliou as propriedades psicométricas do Teste Pictórico dos Perfis Cognitivos (TPPC) através da consistência interna e da validade convergente do TPPC com a versão brasileira do *Personality Belief Questionnaire – Short Form* (PBQ-SF). O TPPC, assim como o PBQ-SF, foi elaborado como um instrumento clínico e de pesquisa, com nove subescalas, para avaliar perfis de personalidade. Uma amostra de 86 alunos universitários respondeu à versão brasileira do PBQ-SF e o do TPPC. Os resultados apresentaram níveis satisfatórios para as estimativas de confiabilidade (*alpha de Cronbach*) do teste TPPC (*alpha* = 0,93). De um modo geral, os achados demonstram a validade convergente para o TPPC, sugerindo que ele também seja um instrumento prático para avaliar perfis cognitivos de personalidade, assim como o PBQ-SF.

Palavras-chave: Teste Pictórico dos Perfis Cognitivos (TPPC); transtornos da personalidade; esquemas cognitivos; Questionário de Crenças dos Transtornos de Personalidade – Forma Reduzida (PBQ-SF)

The Beck's cognitive model identifies and works with three levels of cognition: the core beliefs, the intermediate thoughts and automatic thoughts (J. Beck, 1997; Knapp, 2004; Padesky, 1994).

According to J. Beck (1997), automatic thoughts are those that typically come to mind daily, in different contexts and times of day-to-day, most of them without conscious reflection, because it happens in a automatic, involuntary, and sudden way. They have an important role in this therapeutic approach because they help to understand the way the individual acts and feels in response to environmental stimuli in which one lives. These thoughts act as a filter through which the situations are evaluated acting as an interpretative bias of experienced reality.

From the automatic thoughts it is possible to reach deeper levels of cognition: the intermediate and core beliefs (Knapp, 2004; Padesky, 1994). These beliefs and the automatic thoughts are interrelated: the core beliefs are sources or arrays that shape intermediate beliefs and these, in turn, feed the automatic thoughts. The core beliefs are the most fundamental and profound because they are related to the most central concepts and ideas that the person has about oneself. These beliefs develop from childhood, as the child interacts with significant others and finds, along its development, situations that confirm and strengthen them (J. Beck, 1997; Young et al., 2008). According to J. Beck (1997, 2007), dysfunctional core beliefs can be categorized into themes such as *hopelessness*, *lack of love*, *and worthlessness* which reflect deep beliefs about the view that the individual has of oneself, such as, "I am weak and helpless", "I am someone unlovable" or "I'm no good, I'm bad". There are dysfunctional core beliefs that are related to other people and about the world in general, such as "people always have second intentions" or "life is unfair and cruel." These beliefs are usually made unconditionally (always the same way), absolute (without border adjustments), generalized (applied equally to different contexts and people), and crystallized (hard to change).

Dysfunctional core beliefs when activated become information processing biased towards interpreting

reality reinforcing aspects that confirm their beliefs and neglecting those that contradict. In the personality disorders individuals have their dysfunctional beliefs activated most of the time bringing them undesirable consequences in almost all contexts (Beck A. et al. 2005, J. Beck 2005, Young et al. 2008).

Intermediate or conditional beliefs consist of attitudes, assumptions and rules that help the individual cope and validate their core beliefs (Dattilio & Freeman, 1998; J. Beck, 1997; Knapp 2004). They usually are configured as thoughts like "I have to", "I must or I should" (imperatives in the form of rules) and conditional thoughts like "if ... then" (inferences, presuppositions) based on the view that the subject has of oneself, of others and of the world. For example, "If I keep submissive to people, they will like me" or "I must be careful not to be fooled".

Such beliefs shape the coping behaviors that individuals use to try to deal with their beliefs (J. Beck, 1997; Friedberg & McClure, 2004). They fulfill the purpose of ensuring an alleged stability and continuity of activities in life without any problems or dangers, since they are always obeyed and applied the same way to situations. When not met, the individual believes to be vulnerable in front of their dysfunctional and negative core beliefs (about yourself and about people and the world) that are invariably activated (J. Beck, 1997).

Beliefs and Personality Disorders

Personality Disorders are defined and characterized by diagnostic criteria that allow diagnosing individuals within a clinical category (American Psychiatric Association, APA, 2002). Essentially, the diagnostic criterion for each disorder is a set of attitudes, thoughts, feelings or behaviors strongly related to a disorder in particular.

These clinical categories are grouped into 3 clusters in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, APA, 2002) according to descriptive similarities: patients with Personality Disorders in Cluster A (paranoid, schizoid and schizotypal) often feature odd or eccentric; those with Personality Disorders in Cluster B (antisocial, borderline, histrionic and narcissistic) are often dramatic, emotional or unstable, and those with Personality Disorders in Cluster C (avoidant, dependent and obsessive-compulsive) often appear anxious or fearful.

According to Beck et al. (1993, 2005) each personality disorder can be characterized by a specific set of dysfunctional beliefs. The assumption is that the descriptive differences of personality disorders may be based on different patterns of beliefs as much as they are perceived in different clinical symptoms. For example, the behavioral manifestation of dependent personality disorder includes submission and excessive confidence in the approval and support of a strong ally. Underlying these behavioral patterns are beliefs such as "I am helpless and cannot handle things like other people can". One of the central aspects of the treatment in this approach is to seek the identification and modification of these dysfunctional beliefs so that clinical tools that support the achievement of this objective are very welcome.

The Personality Belief Questionnaire

The Personality Belief Questionnaire - Short Form (PBQ-SF; Butler, A. Beck, & Cohen, 2007) was developed from the Personality Belief Questionnai-

re (PBQ; A. Beck, J. & Beck, 1991) as a clinical tool and research to access and assess dysfunctional beliefs associated with each of the personality disorders of Axis II of the Diagnostic and Statistical Manual of Mental Disorders (APA, 2002). The central idea of both versions of the questionnaire – long, with 126 items and reduced, with 65 items – is based on the assumption that the descriptive differences of personality disorders may be based on different patterns of beliefs as much as they are perceived in different clinical symptoms (A. Beck et al., 1993, 2005).

Recently, Leite, E. Lopes and R. Lopes (2012) conducted a study of the psychometric properties of the Brazilian version of the PBQ-SF in a sample of 700 college students. The results showed satisfactory levels for estimates of reliability (Cronbach's alpha) of the scales of the PBQ-SF: paranoid (0.84), schizoid/schizotypal (0.68), antisocial (0.73), borderline (0.75), histrionic (0.78), narcissistic (0.72), avoidant (0.64), dependent (0.71), obsessive-compulsive disorder (0.80) and passive-aggressive (0.68), pointing to a significant association between the beliefs of each of the scales. The factor analysis results were also satisfactory showing a very approximate factor model of the original structure of the PBQ-SF.

In general, research findings (Leite et al., 2012) provided data for the evaluation of questions that demonstrate the existence of validity for the Brazilian version of the PBQ-SF, suggesting that it promises to be a practical tool to the measurement of dysfunctional beliefs related to personality disorders.

The PBQ-SF can be used clinically to provide a cognitive profile and to identify dysfunctional beliefs that can be addressed in treatment. The responses of PBQ can be reviewed with patients to explore several important areas: for example, how certain beliefs are affecting their emotions and behavior and how these beliefs may have been learned and maintained, even in the face of important contradictory data. Patients may also be asked to evaluate the advantages and disadvantages of maintaining those beliefs and develop more adaptive alternative beliefs (A. Beck et al., 1993, Butler et al., 2007).

The Pictorial Test of Cognitive Profiles

The Pictorial Test of Cognitive profiles (TPPC; Leite & R. Lopes, 2011) was designed as a clinical and research tool to access and assess dysfunctional beliefs associated with each of the personality disorders of Axis II of the Diagnostic and Statistical Manual of Disorders mental (APA, 2002).

The technique consists of nine cards in cartoon format containing the picture of a character in a given situation, in which he notes several verbal information and illustrations that make up your environment, and that are expressed in different media (billboards, signs, posters, etc.). On all cards, the same layout is repeated, only changing the content of the media surrounding the character.

Each card presents a group of beliefs corresponding to one of personality profiles (paranoid, schizoid/schizotypal, antisocial, histrionic, narcissistic, avoidant, dependent, obsessive-compulsive, passive-aggressive). The nine personality profiles can be recognized by the subject's thoughts (strategies) of the subject of the drawing, his nonverbal expressions (facial expression) and his thoughts and beliefs that manifest themselves described in different media set in the situation. The card contents have been extracted from A. Beck et al.'s work (1993).

The application of the TPPC may be conducted by asking the respondent to make the reading of the nine cards, noting on a 5-point Likert scale, how much each of the five statements expressed in different media of each card looks like the way he thinks.

In a clinical context, the application of the TPPC may be followed by a guided interaction in socratic dialogue, through which the patient is led to important findings (insights) about your score on the cards: the patient can be led to understand a) that different subjects interpret and react differently to the same situation; b) that their responses are mediated by the perception they have of the situation; c) that the situation alone does not determine directly how they think, feel or react; d) that the perception of each subject suffers the influence of his personality; e) that the personality of each one is manifested by their beliefs and thoughts on the situation; f) that these thoughts and beliefs act as filters or lenses that skew the interpretation of the situation; g) and that they frequently presented as intense, overgeneralized, imperative, inflexible, self-defeating and very resistant to change (A. Beck et al., 2005; J. Beck 2005; Young et al., 2008).

The application of the TPPC may also help in the therapeutic process that seeks to bring the patients a) to identify their own automatic thoughts and underlying beliefs; b) submitting their thoughts to a more rational c) assess the validity of their thoughts and beliefs, d) seek change by reasonable, functional or adaptive thoughts; e) evaluate the overdeveloped and underdeveloped traits of their personality and f) to reduce self-criticism during the change process.

In general the application of TPPC in clinical settings can be conducted in different ways according to the need and creativity of the therapist. Through an illustrative manner and easy to grasp, the patients may be driven by the therapist to reflect their dysfunctions and pay attention to the fact that even though their dysfunctions appear natural and acceptable (ego-syntonic) for them, they related to their skewed way of interpreting situations and can provide a great personal cost in coping with life (A. Beck et al., 2001; J. Beck, 1997).

OBJECTIVE AND HYPOTHESIS

The purpose of this work was, in a sample of university students, the study of the psychometric properties of the Pictorial Test of Cognitive profiles (TPPC) by verifying the internal consistency and convergent validity with the Brazilian version of the Personality Belief Questionnaire - Short Form (PBQ-SF). As the TPPC is a pictorial version of the PBQ-SF, the main hypothesis is that the two instruments measure the same profiles and have the same psychometric properties.

METHOD

Participants

The sample consisted of 86 college students from a public university at Uberlândia/MG, Brazil, with 16 male participants (18.6%) and 70 female participants (81.4%), age less than 18 years (mean = 21.5, , SD = 5.5) as shown in Table 1.

Material

It was used two questionnaires: the Brazilian version of the PBQ-SF (Butler et al., 2007; Leite et al., 2012; Savoia et al., 2006) and the Pictorial Test of Personality Profiles (TPPC; Leite & R. Lopes, 2011).

The Personality Belief Questionnaire

The Brazilian version of the PBQ-SF consists of 65 statements and a Likert scale ranging from (0) "I do not believe that" to (4) "I believe fully" to score according to the perception of the examinee. Each group of 7 statements composes a scale that corresponds to a personality disorder. In total, the 10 scales evaluated 10 personality disorders: paranoid, schizoid/schizotypal, antisocial, borderline, histrionic, narcissistic, avoidant, dependent, obsessive-compulsive, passive-aggressive. The number 65 (and not 70) of items in the instrument is justified because the borderline personality disorder has two own items and five items shared with other disorders (avoidant, dependent, paranoid). This overlap of the items in the borderline scale with the scale items of other disorders due to the fact that, according to the authors of the test, the individuals with this personality disorder have dysfunctional beliefs associated with a wide variety of disorders of Axis II disorders (Butler et al. 2007).

The Pictorial Test of Cognitive Profiles

The Pictorial Test of Cognitive profiles (TPPC) consists of 9 cards, each one containing the same image of a character in an urban context, observing 5 verbal information arranged in different media (billboards, signs, posters, etc.). The participant's task is to indicate, on a 5-point Likert scale, how much the phrases characterize his thinking. As an example, Figure 1 shows the card for the narcissistic cognitive profile with some characteristic features and beliefs.

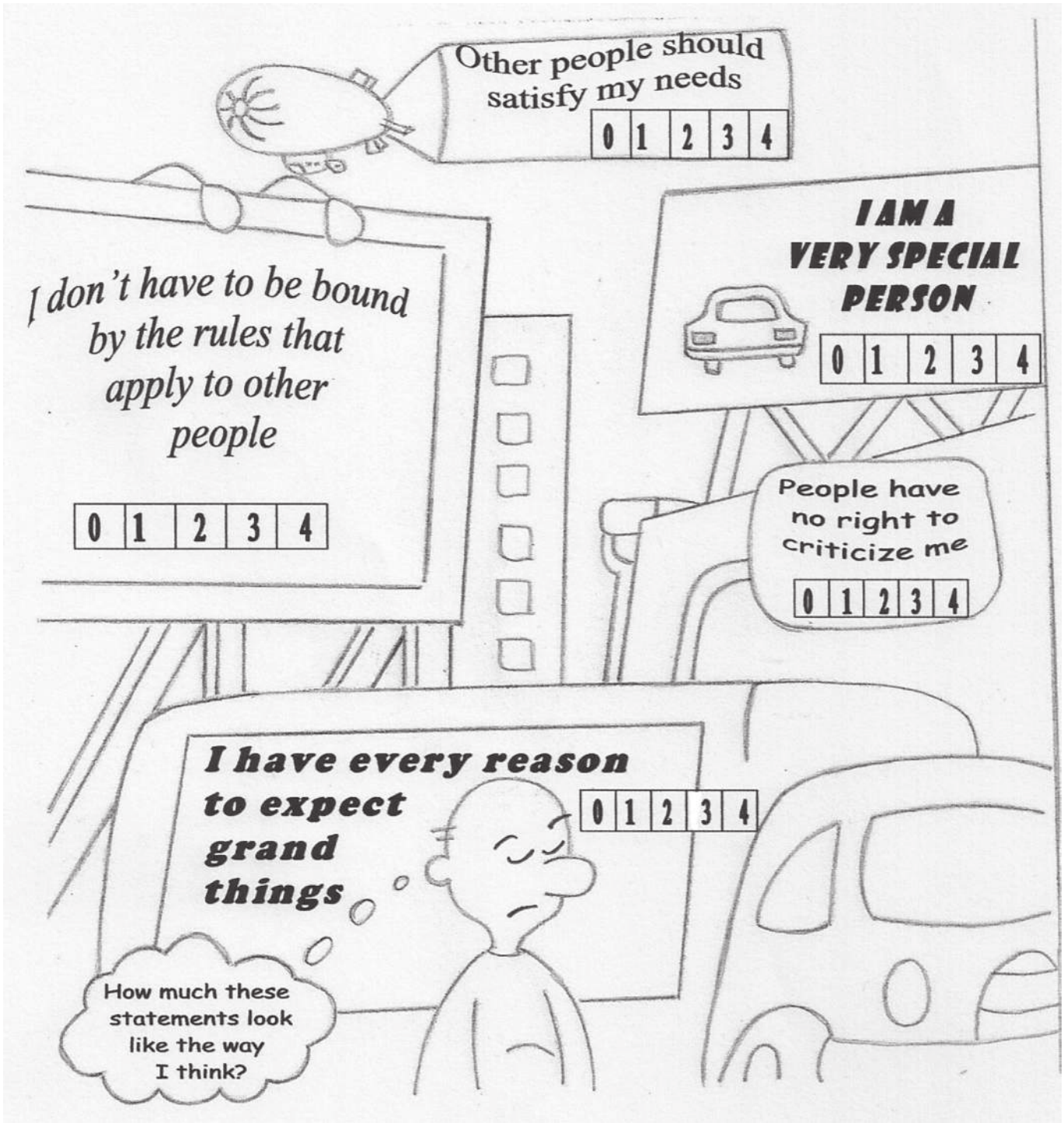
Table 1: Demographic data of the sample considering the age (in years), the undergraduate program and gender (male and female)

Age (years)		
	Frequency	*Frequency %*
18 to 20	60	69.8%
21 to 23	13	15.1%
24 to 26	3	3.5%
27 to 29	1	1.2%
30 to 32	2	2.3%
33 to 35	3	3.5%
36 to 38	2	2.3%
39 to 46	2	2.3%
Mean	**21.5 years**	
Standard Deviation	**5.5 years**	

Undergraduate Courses and Sex			
	Male	*Female*	*Total*
Biology	5	13	18
Nursing	2	9	11
Letters	5	8	13
Nutrition	2	17	19
Techinical Nursing	2	23	25
Totals	**16**	**70**	**86**
Totals %	**18.6%**	**81.4%**	**100.0%**

Procedures

This study was approved by the Ethics Committee of the Universidade Federal de Uberlândia (Registration Protocol CEP/UFU 066/11). First, it was requested to teachers of nursing, letters, biology, nutrition and nursing technician authorization to explain in the day, place and time agreed, the research objectives for the students of these courses and to invite them to participate her. Confirmed the authorization, the day, time and place marked by teachers, students were introduced to the research objectives, and then they were asked to participate. For those who decided to participate, was delivered the consent form. After signing the consent, we per-



formed the delivery and application of instruments. Personal Beliefs Questionnaire (PBQ-SF) and the Pictorial Test of Cognitive profiles (TPPC) were applied alternately, ie, half of the students began to respond to the PBQ and the other half to TPPC, in order to avoid the interference of the application order. In PBQ-SF participants indicated on a Likert 4-point scale the degree that the statement of the questionnaire concerned to them. In TPPC, participants answered the statements on the cards arranged in 4-point scales, identical to the PBQ-SF, indicating the intensity that the phrase described characteristics of the participants.

The application of the instruments was done in classrooms, collectively, and took, on average, approximately 15 minutes.

RESULTS

Descriptive statistical analysis

The distribution of item-variable data was analyzed by observing the diagrams with the normal curve and asymmetry indices (skewness) and flatness (kurtosis). In general, it was observed that there was a data distribution quite close to the criterion of normal distribution. According to Hair et al. (2005) absolute values greater than or equal to 2.0 are critical to reject the assumption of normality of a distribution at a significance level of 0.05. According to this criterion, it was observed that all scales of the PBQ-SF and TPPC this study have an acceptable deviation from normality, less than 2.0.

Similarly, the test of normality Kolmogorov-Smirnov presented for all scales of the PBQ-SF and all cards TPPC, significance values greater than 0.05 suggesting acceptance the hypothesis about the normal distribution of data.

Psychometric properties

Internal consistency of the PBQ-SF and TPPC

In order to study the psychometric properties of the TPPC, the internal consistency of their 9 scales was analyzed through Cronbach's alpha and correlation studies (convergent validity) with the Brazilian version of the Personality Belief Questionnaire - Short Form (PBQ-SF; Butler et al, 2007; Leite et al, 2012). Table 2 presents the estimates of reliability (Cronbach's alpha), means and standard deviations for the 10 scales of the PBQ-SF and the 9 cards of TPPC.

It can be observed that all the PBQ-SF and TPPC scales, except the avoidant scale, produced alpha whose indices are within the bounds of acceptable reliability (Davidshofer & Murphy, 1988; Hair et al., 2005). The Cronbach's alpha coefficient for the overall scale of the PBQ-SF was 0.9 and the mean total score was 85.3 (SD = 29.7). The Cronbach's alpha coefficient for the overall scale of all cards was 0.9 and the mean total score was 74.0 (SD = 24.4).

Convergent validity

The correlation coefficients used to estimate the convergent validity are in Table 3 and indicate that, in general, the scales corresponding PBQ-SF and TPPC cards are positively correlated.

The major convergences were observed for scales obsessive-compulsive (0.7), paranoid (0.7), and antisocial (0.7). Moderate values were found for the scales schizoid/schizotypal (0.6), narcissistic (0.6), passive-aggressive (0.6), dependent (0.6) and histrionic (0.6) and low value for scale avoidant (0.4). All correlations are significant at $p \leq 0.001$.

Discriminative properties of the TPPC

Testing the difference between means

The hypothesis was that we would not find a significant difference between the mean scores of a particular personality scale answered by the participants in both tests. Being accepted, there would be an indication that the participant's score is independent of the type of test that he answers, leading us to conclude that the differences observed between the sample means in both tests are due to random variations in the sample and, therefore, tests are assessing the same construct with scores statistically equal.

Table 2 – Means, standard deviations and Cronbach's alpha of the PBQ-SF and TPPC (N=86).

Scales	PBQ				TPPC			
	Alpha	N valid	Média	Standard deviaton	*Alpha*	N valid	Média	Standard deviaton
PAR - Paranoid	.7	85	8.1	4.5	.8	81	7.2	4.3
EQZ - Schizoid/Schizotypal	.8	84	12.3	5.9	.6	80	9.2	3.9
ANT - Antisocial	.7	84	6.7	4.5	.7	76	9.3	3.7
BOR - *Borderline*	.7	84	7.5	4.6	-	-	-	-
HIS - Histrionic	.7	83	6.8	3.8	.6	82	8.8	3.3
NAR - Narcissistic	.7	81	6.7	4.0	.7	80	9.3	4.1
ESQ - Avoidant	.4	81	11.2	3.4	.5	78	5.4	2.8
DEP - Dependent	.6	83	8.6	4.2	.7	79	5.5	3.6
OBS - Obsessive-compulsive	.7	85	10.5	4.7	.8	81	8.7	4.3
PAS - Passive-aggressive	.7	81	12.0	4.7	.7	81	9.4	3.9
Global Scale (All items)	.9	70	85.3	29.7	.9	57	74.0	24.4

Table 3 – Convergent validity of the scales of the PBQ-SF and TPPC (N=86)

	Correlation PBQ-SF x TPPC	Sig. (2-tailed)	N valid
PAR - Paranoid	.7	.000	80
EQZ - Schizoid/Schizotypal	.6	.000	78
ANT - Antisocial	.7	.000	74
HIS - Histrionic	.6	.000	79
NAR - Narcissistic	.6	.000	76
ESQ - Avoidant	.4	.001	74
DEP - Dependent	.6	.000	76
OBS - Obsessive-compulsive	.7	.000	80
PAS - Passive-aggressive	.6	.000	76
Global Scales	.8	.000	49

To decide whether the difference between the means is statistically significant the z-scores were calculated for the mean values in each range of both instruments. The results are presented in Table 4.

The results of *p* – all higher than the significance level of 5% – lead to the conclusion that the mean scores of the participants in both tests are statistically equal.

Confirmed the hypothesis of equality between the means, there is an indication that the tests PBQ-SF and TPPC are producing, for each participant, the same score for their beliefs scales evaluated.

Significance test for proportions (stratification of scores)

For this study, we performed a stratification of scores for the PBQ-SF and TPPC categorized as "above

Table 4: Differences between the means of the z scores obtained from the PBQ -SF and TPPC for each personality scale (t - student, α = 5%)

Scales	PBQ-SF			TPPC		Mean	t	df	p-value
	N	Mean	SD	Mean	SD	difference			(2-tailed)
Paranoid	80	.01	1.02	-.01	1.01	.01	.13	79	.90
Schizoid/Schizotypal	78	.04	.99	-.01	.96	.05	.51	77	.61
Antisocial	74	.01	1.00	.01	1.00	.00	.03	73	.98
Histrionic	79	-.01	.99	-.01	1.00	.00	.04	78	.97
Narcissistic	76	.01	1.03	-.01	1,01	.01	.13	75	.89
Avoidant	74	.07	.98	.01	.98	.06	.47	73	.64
Dependent	76	-.05	.99	.01	1.02	-.07	-.61	75	.55
Obsessive-compulsive	80	.00	1.02	.01	1.00	-.01	-.16	79	.87
Passive-aggressive	76	.03	.98	.02	.99	.01	.08	75	.94

Table 5: Test of the sample proportions "above or equal to the mean" and "below mean" of the PBQ -SF and TPPC scores by Chi-square (χ^2), α=5%.

Scales	PBQ-SF			TPPC			χ^2	df	p-value
	N	N<Mean	N⩾Mean	N	N<Mean	N⩾Mean			(2-tailed)
Paranoid	85	47	38	81	43	38	.08	1	.78
Schizoid/Schizotypal	84	42	42	80	42	38	.10	1	.75
Antisocial	84	45	39	76	42	34	.05	1	.83
Histrionic	83	43	40	82	38	44	.49	1	.48
Narcissistic	81	40	41	80	38	42	.06	1	.81
Avoidant	81	41	40	78	43	35	.32	1	.57
Dependent	83	47	36	79	45	34	.00	1	.97
Obsessive-compulsive	85	39	46	81	39	42	.09	1	.77
Passive-aggressive	81	40	41	81	38	43	.10	1	.75

or equal to the mean" or "below mean". The higher the score of the participant in each scale of the PB-Q-SF or TPPC, the greater the probability of a cognitive configuration close to the profile described by the scale (Beck et al., 2005). The assumption therefore is that participants have scores "above or equal to the mean" and "below mean" in PBQ-SF must present respectively settings scores "above or equal to the mean" or "below mean" statistically significant, also in TPPC. If it is set, it becomes possible to conclude that the TPPC instrument has the same degree of sensitivity compared to PBQ-SF.

The sample proportions of the scores produced on both tests were analyzed by chi-square test and the results are presented in Table 5.

The results of the chi-square found indicate that the sample proportions are statistically equal ($p>0.05$) for all scales of both tests. This means that both instruments produce statistically the same configuration of scores "above or below mean" as indicative of a greater or lesser degree of personality disorder, and, thus, the same adjustment regarding the degree of sensitivity.

DISCUSSION

The results of this study provided support for the validity and reliability of TPPC. The total scale showed high internal consistency index (alpha = 0.9) and reliability estimates (Cronbach's alpha) of the 9 scales showed acceptable levels of TPPC: paranoid (0.8), schizoid/schizotypal (0.6) , antisocial (0.7), histrionic (0.6), narcissistic (0.7), avoidant (0.5), dependent (0.7), obsessive-compulsive disorder (0.8) and passive-aggressive (0.7), indicating a significant association between the beliefs of each scale corresponding to their personality disorder, as assumes the A. Beck et al's model (2005).

The scores obtained from the application of TPPC showed significant positive correlations ($p \leq 0.001$) compared to the scores of the scales of the same name on the PBQ-SF: paranoid (0.7), schizoid/schizotypal (0.6), antisocial (0.7), histrionic (0.6), narcissistic (0.6), avoidance (0.4), dependent (0.6), obsessive-compulsive (0.7), passive-aggressive (0,6). These results provide evidence for the convergent validity of the TPPC, indicating that higher scores on the PB-Q-SF tend to be higher on the cards of TPPC.

The mean scores produced by the TPPC cards showed no statistically significant differences compared to the averages produced by the scales of the same name of the PBQ-SF, pointing to the fact that, for the same participant, both instruments are producing the same score for their beliefs scales evaluated.

The stratification of the scores in "above or equal to the mean" and "below mean" obtained from the TPPC scores compared with the stratified scores similarly obtained from PBQ-SF demonstrated a statistically similar sensitivity of both instruments to capture substantive differences between the mean values of personality disorders. The study provides evidence that the tests are comparable in terms of scores, that is, the two tests provide scores that cluster around the average in similar proportions.

The comparison between the means and the comparison between the proportions of the scores produced by both tests show, therefore, that the participant scores are independent of the type of test used – PBQ-SF or TPPC.

CONCLUSIONS

The aim of this work was to study the psychometric properties of the Pictorial Test of Cognitive Profiles, checking the internal consistency and the convergent validity with the Brazilian version of the Personality Belief Questionnaire — Short Form.

In general, the results of psychometric properties (reliability and validity) of TPPC obtained are satisfactory. The results suggest that the cards of the TPPC have value as an auxiliary instrument for assessment and therapeutic intervention and the identification of fundamental beliefs. The instrument can be useful for directing therapy and their responses can be reviewed with patients to explore, for example, how certain beliefs are affecting your emotions and behaviors and how those beliefs may have been learned and maintained. Patients can also be guided to evaluate the advantages and disadvantages of maintaining those beliefs and develop more adaptive alternative beliefs (A. Beck et al., 2001, Butler et al., 2007). Further studies need to be conducted to resolve the limitations of using the TPPC, for example, for people with visual impairments. Being characteristically a pictorial instrument, it was designed to facilitate the application in samples without this type of problem.

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